



OUTDOOR SERVICE GUIDES

PATHFINDER HANDBOOK

4th Edition

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OSG Group _____

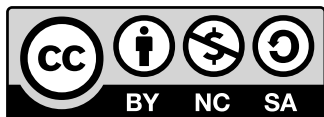
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PATHFINDER HANDBOOK

4th Edition



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This handbook represents a complete revision of the Baden-Powell Service Association's Pathfinder Handbook Third Edition, Revision 2.2, August 2014.

Outdoor Service Guides
Scouting for Everybody!

Outdoor Service Guides is a non-profit organization based in the United States of America. We offer youth scouting programs and leadership enrichment opportunities for everyone. Our goal is for everyone to experience the fun of scouting.

Outdoor Service Guides is a registered 501(c)3 non-profit.

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For Our Pathfinders

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Badge Tip

Throughout this handbook, you will see icons in the margins indicating that the text on that page relates to certain Pathfinder badge requirements. The image shows the badge, and the number beneath the image indicates which requirement. For example:



2a

This means that the page content discusses the Tenderfoot Badge, Requirement 2a.



2c

This means the section is providing instruction on Second Class, Requirement 2c.



5a

This means the text adjacent is related to First Class, Requirement 5a.

PART I



1

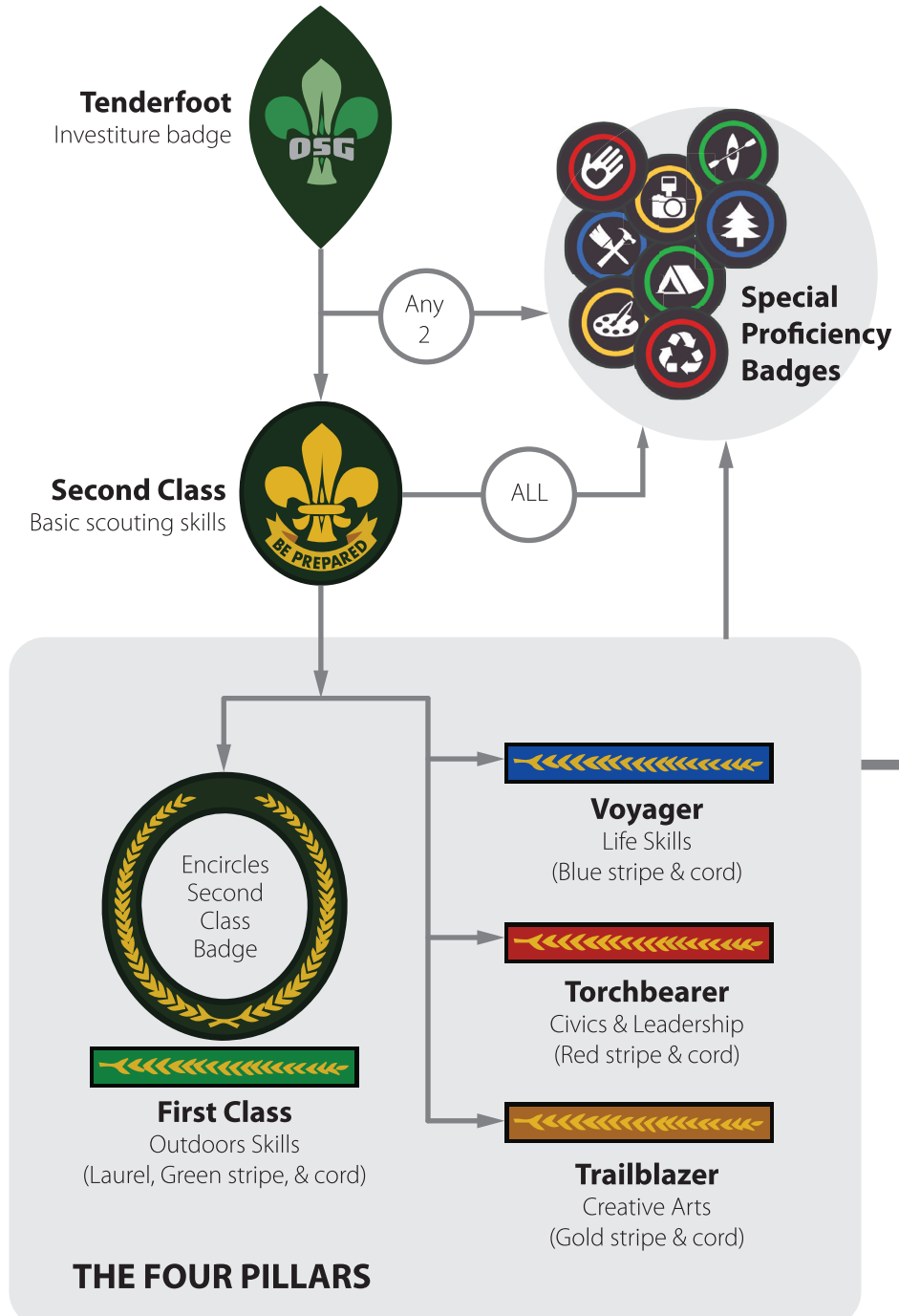
THE PATHFINDER PROGRAM

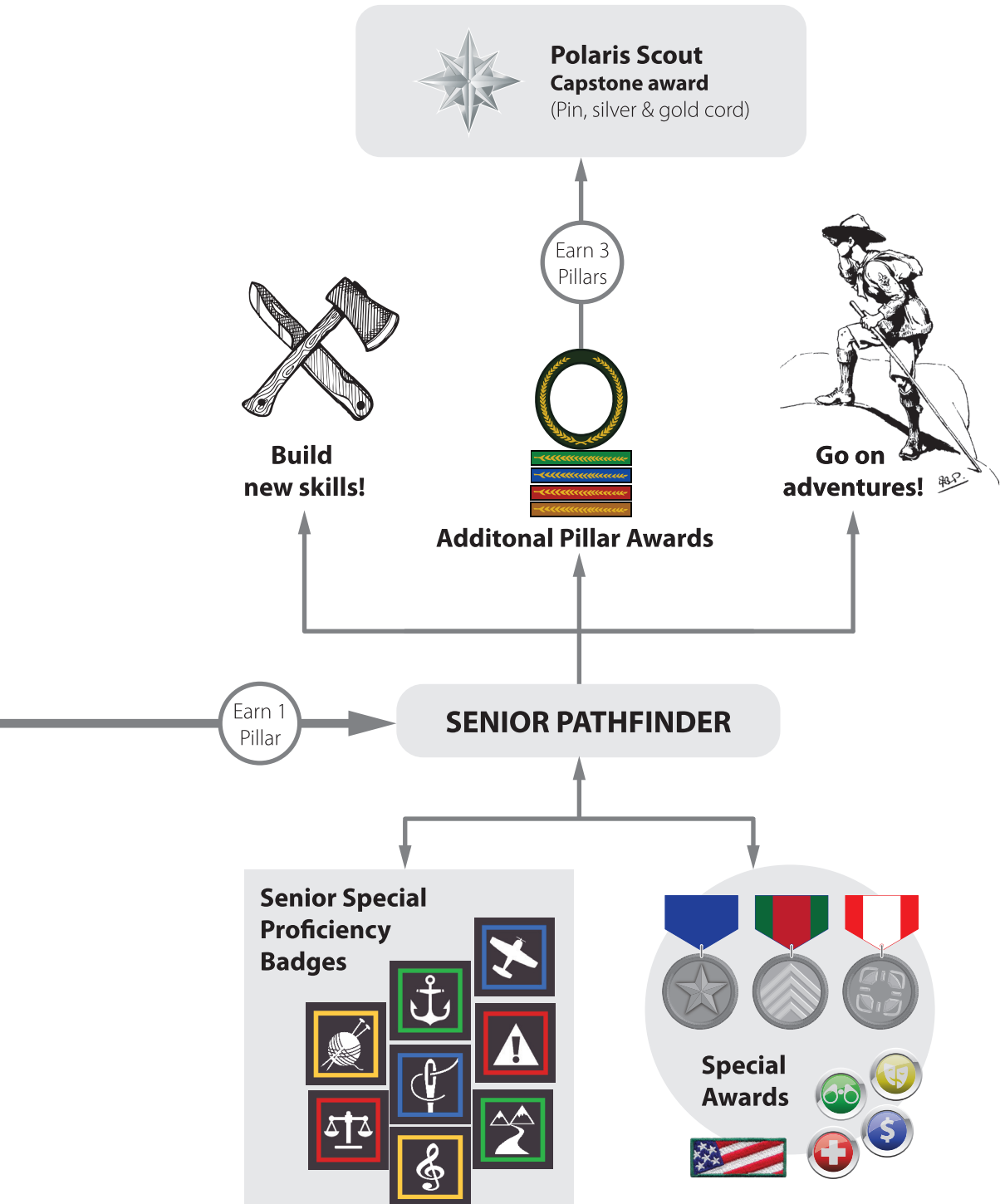
The Pathfinder program is designed to be one where scouts gradually learn skills that develop a real sense of independence. Every Pathfinder moves through the program at their own pace. This means some Pathfinders, especially those who were Timberwolves, will earn Tenderfoot and Second Class quickly. Other Pathfinders choose to take more time to learn these new skills. The important part is that you are developing new abilities and trying your best!

Starting The Program

Scouts learn the basic skills of scouting, the things you'll need to know to have all sorts of outdoor adventures, through the Tenderfoot and Second Class badges—sometimes called *general proficiency badges*. Then, scouts have an opportunity to learn a variety of ways to explore the world through other badges, aptly called *special proficiency badges* because each focus on one area of interest. These badges are scouting's doorways into the many different worlds you can explore, learning about anything from archery to learning about native art to composing your own music.

Finding Your Own Path





Scouts then can build their own program by exploring our four pillars. For those who want to go deeper on the core skills of outdoor scouting, one pillar is to earn the First Class badge. The other three pillars focus on one area of a well-rounded life. These pillars also require senior special proficiency badges—badges with challenges to keep our oldest and most energetic scouts learning and exploring.

Scouts who finish any three of the four pillars will earn the Polaris award, the highest award available to a Pathfinder and a mark of a true current-day explorer.



Tenderfoot

The Tenderfoot rank is the first badge a Pathfinder should work towards. It is the badge of investiture into our program, and the skills needed to earn it are foundational to other badges you'll want to earn later. Some examples of things you'll learn are the Scout Law, promise, and motto; all about the American flag; how to tie knots you can use for camping and other outdoor adventures; and why a scout staff is so handy. These skills can be practiced in group meetings, on your own, or on camping trips. A few, like flag folding, will go much better if you work on them with your patrol.

You can view the Tenderfoot requirements on page 19 to get started on it right away. The information throughout this handbook was designed to help you learn each of those skills. Flag folding, for example, is on page 107. The knots are all described in the Knots chapter, Chapter 4.

To best prepare you for scouting adventures, Tenderfoot and Second Class focus on core scouting skills. However, sometimes scouts see a special proficiency badge that's so exciting that they just don't want to wait. That's why, once you earn Tenderfoot, you are eligible to work on up to two special proficiency badges while still working on Second Class. However, you don't have to earn proficiency badges here—some Pathfinders prefer to jump right into working on Second Class, and that's acceptable too.



Second Class

Second Class skills are basic scouting skills that you can also create games around and play with as you learn them. At the same time, they are useful skills! Second Class scouts know how to use a compass, light a campfire even when it's raining, and cook dinner at camp. They can safely use an axe, help others by giving first aid in an emergency, and build structures held together only with rope. You can read the Second Class requirements on page 212 and—just like with Tenderfoot—you'll find information to help you learn each skill throughout this handbook.

The Heart of the Program

The Four Pillars

Once you've earned Second Class, you can continue to develop and learn new skills by working your way through the four pillars. Each one has a different focus, listed below:

Category	Pillar Award Name	Color
Outdoor Skills	First Class	Green
Civics and Community	Torchbearer	Red
Creative Arts	Trailblazer	Gold
Life Skills	Voyager	Blue

Scouts earn the First Class pillar by learning the skills of the First Class badge, discussed below. Each of the other pillars—Torchbearer, Trailblazer, and Voyager—is achieved by earning a select group of special proficiency badges and senior special proficiency badges. You can find the specific requirements for each pillar in Chapter 20.

These four awards—First Class, Torchbearer, Trailblazer, and Voyager—each represent a series of challenges that you have met, so earning a set of badges proves you have worked hard at a specific set of goals. You'll have done work that sets you apart as an exemplary scout. Scouts must complete three of the four pillars to earn the Polaris award.

First Class

First Class provides advanced skills in the core areas of scouting: self-sufficiency and safety in the outdoors, emergency preparedness, and service to your community. First Class was part of the original scouting program as conceived by Lord Baden-Powell in 1908 and is partly named from the idea that something “first class” is just the best. Scouts who earn this award are therefore real First Class scouts. You can learn more about the requirements on page 369.

Scouts who earn First Class will learn advanced first aid, how to estimate distances and draw their own maps, how to fell a tree with an axe, and other useful outdoor skills. At the end, the scout will get to plan and take their own journey, the First Class Journey, showing they are fully ready for independent outdoor adventures.



As one of the four pillars, scouts can earn First Class to work toward their Polaris award, but it is not required.



Special Proficiency Badges

Special proficiency badges provide the opportunity for scouts to try many new things as well as gain recognition for skills they may already have. These are also the building blocks for the Torchbearer, Trailblazer, and Voyager pillars. Special proficiency badges are designed to help you build an introductory level of skill in a particular area—many topics also have a senior level proficiency badge that goes deeper into those skills.



Scouts can earn up to two special proficiency badges after earning Tenderfoot. Once you've completed Second Class, the Pathfinder program offers many different special proficiency badge options you can explore.

These badges are separated into four groups. Each is color coded to match their pillar. As you continue your development, you'll have the option of focusing on one, any, or all these pillars.

The well-rounded Pathfinder will attain badges from each area, but you may also choose to focus more on what you find interesting. Hopefully, you and your patrol will choose a badge you'll all work on together. This is a team adventure!



Scout Stories

Wren loves the outdoors and was super excited to get out into the woods with their friends. Wren earned their Tenderfoot in a single weekend campout with their patrol, then spent the next eight months working on Second Class. After Second Class, they decided to focus on First Class. Spending more time outdoors, Wren realized how much they loved boating, and so worked with their scoutmaster to find someone who could teach them the skills needed for the Kayaker special proficiency badge. Wren went on to earn the Mariner and Ancient Mariner badges.

Brooklyn was most interested in scouts as a chance to hang out more with their friends and liked to play guitar at home. After about 6 months they earned their Tenderfoot. Reading through their scout manual, they were excited to see a Filmmaker special proficiency badge and decided to try that out, and then the Beekeeper badge. These were so much fun that Brooklyn decided to earn Second Class so they could focus on some of the Trailblazer badges.

Every badge is a new challenge worth considering. It is also fine if you do part of a badge and realize that completing it isn't for you. There are a lot of badges to consider, and part of scouting is trying new things! The special proficiency badges start on page 381. Take your time and look through them for the ones you'll enjoy most.

Senior Special Proficiency Badges

A scout may begin working the senior special proficiency badges once they meet any one of the following requirements:

1. They achieved their First Class award; or
2. They completed all six special proficiency badges for one of the other pillars: Torchbearer, Trailblazer, or Voyager; or
3. They pass their 14th birthday.

These badges are structured similarly to the regular special proficiency badges but are designed to present challenges that appeal more to older Pathfinder scouts, typically age 14–17. Some of these badges require earning other badges before completing them. These badges start on page 468.



Polaris Award

If you earn three of the Pathfinder pillars: First Class, Torchbearer, Trailblazer or Voyager, you'll be eligible for our highest award, the Polaris Award. Polaris means "North Star," and earning the Polaris award means that you yourself have become a shining star with many skills to help you get wherever you want to go in life.



This is your Pathfinder journey. Make the most of it! Choose the badges, adventures, awards, and accomplishments that interest you and start working towards them. Every Pathfinder in Outdoor Service Guides gets to shape their own path as they work through the program.



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Scouting and Guiding: What is it, and where does it come from?

Many scouts are excited to be explorers—going to unfamiliar places and checking everything out. But scouting is more than that: it is exploration combined with intention. Guiding takes it all one step further—exploring with intention, then sharing and helping others. For example, imagine a new arcade opens in your town. You might explore it by simply trying a few games and enjoying yourself. But you might scout it out to plan an outing with your friends later—you would find out the hours of the arcade, what sorts of games they have. You could then be the guide for your friends in planning an outing there. Everyone will get to have their own fun, exploring games and doing what they like, but you won't show up just before closing, or miss out on laser tag because you didn't know how to reserve it.

We see scouting and guiding all around us in other forms, including the work that journalists do, traveling the world to explore different situations and report back on news-worthy events. Martha Gellhorn was a writer who reported on Adolf Hitler before WWII. She disguised herself to sneak into war zones and reported on the war from all over. She was the only woman landing at Normandy on D-Day and her scouting and reporting throughout the war kept the world informed.

People continue to explore farther and more dangerous places. Astronauts like Buzz Aldrin and Mae Jemison have scouted the moon and outer space, returning with important information that informs every scientific field. Expeditions into space, the deepest parts of the ocean, and to polar regions are all explorations that observe, record, and report information for the betterment of humankind.

More than a hundred years ago, Robert Baden-Powell wanted young people to have a chance to learn scouting skills for themselves in a fun way. He began writing books about how to explore, learn the skills to have exciting adventures, and share your skills and knowledge with others. His first book especially for youth, "Scouting for Boys" was published in 1908. Robert's sister Agnes helped form the Girl Guides in 1909. Later, Robert married, and his wife Olave Baden-Powell was also involved in scouting and guiding for more than 60 years. These three Baden-Powells and many others, including Juliette Gordon Low, the founder of Girl Scouts of the USA, helped scouting grow across the world. It's estimated that over 500 million people have participated in scouting, in more than 200 countries.

The Worldwide movement of “Peace Scouting”

Before he was a scout, Baden-Powell was a soldier. He was known for his part in England’s wars to colonize South Africa and India. However, his original handbooks for youth scouting very consciously omitted military content, and he refers specifically to “peace scouts.” Guiding and scouting are peace-building because we are all striving to follow the Scout Law as a code of ethics, and the activities we do build us up, and help our communities. Scouting is also a bridge across many divides and spans almost every country and culture in the world. The Scout Law, our special left-handed handshake, our uniforms are shared by millions. These traditions of scouting spark recognition among people who are otherwise strangers. They know what guiding stands for and feel a special respect and connection for each other.

World Thinking Day is every year on February 22, and it’s a special time to focus on scouts and guides across the world and honor this connection of peace and friendship. This tradition was started by leaders at the International Girl Scout Conference in 1926. They chose February 22 because it happened to be the birthday of both Robert and his wife Olave Baden-Powell, and it’s been celebrated ever since.

21st Century Scouting

Life in the United States was very different in the early 1900s, when scouting began. The Wright Brothers were just beginning to achieve the first powered air flights. Explorers were still racing to be the first to the north and south poles. Sewing machines and typewriters were still new, indoor toilets were a novelty, and almost no one had electricity at home. As for what kids were up to back then... the world had started to shift away from child labor, but in 1910, one in five people working in industries like factories and mining were kids under the age of 16.

In the early 2000s—a hundred years after the scouting movement began—a bunch of adults were following Baden-Powell’s original writings and doing traditional scouting, because it’s still really fun.

They wanted to share the fun with kids, they wanted to make sure that they welcomed all genders, races, religions (including those with no religion), and all other different backgrounds and identities to do scouting and guiding together. In 2006, David Atchley and some others formed our organization. It was originally named after Baden-Powell, but that wasn’t quite the right name for us. For one thing, Baden-Powell did and said some things we don’t agree with. Although he and the other Baden-Powells did a tremendous amount to start and grow the guiding and scouting movement, there have been many others who were instrumental, and it’s



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made by all of us. In 2020, we agreed to change to a name that reflects who we are and what we do, and in 2021, we became the Outdoor Service Guides, or OSG for short.

We are centered on the outdoors because fresh air, sunshine, and moonlight are wonderful for mental and physical well-being. The outdoors should also be accessible to all—people spend a lot of time in a lot of different buildings, and live in a lot of different climates, but everyone should be able to step out the door sometimes. Core guiding skills can help you get outdoors more and get the most out of the outdoors. Beyond that, scouting and guiding are a great place to try out all sorts of new things and learn skills—arts, sports, games, as well as first aid, cooking, and caregiving. It's easy to see how our first aid skills can be of service, but we are also contributing to the world by making beautiful art, delicious food, and playing fun games, and learning to work well in teams and independently.

Outdoor Service Guides and Pathfinders

OSG is a comparatively young and small organization, but we are all across the United States. We are also a member of the World Federation of Independent Scouts, or WFIS. That means we are all part of a worldwide group of scouts who learn the same skills, the same Scout Law, and are all interested in exploring the world and making it better for all.

Pathfinders is open to all interested people ages 11 to 17. There are other sections for younger scouts and older scouts: Otters and Timberwolves for younger kids, and Rovers for adults. As the oldest youth section, Pathfinders get to have the biggest, best adventures, and you get to do a lot of the planning and make a lot of the decisions yourselves!

Here are some outdoor adventures OSG Pathfinders have been on:

- The 91st Sojourners in New York paddled their canoes across a lake to go camping in winter.
- The 55th Cascadia in Oregon took a 111 mile canoeing and camping trip that lasted 8 days.
- The 183rd Tonkawa in Texas went on a 2 night backpacking trip around Enchanted Rock.

The intention that goes with our exploration of nature, culture, and civics—the part that makes it not just kicking around but really scouting and guiding—is

service. Here are some projects where scouts used their skills to improve and help their communities:

- The 64th Brandywine in Pennsylvania built a Little Free Library for their neighborhood.
- The 98th Rainier in Washington helped clean up a bridge that leads to the beach.
- The 17th Black Bears in Virginia made kits with soup, socks, and hats that they took to the tent community of homeless people in their town.

Pathfinders in Patrol

When you join your Pathfinder scout troop, you'll choose, or be assigned to, a patrol. The patrol is the smallest group of scouts and is where all the fun and action happen. A patrol is a group of five to eight scouts who work and play together as a team and is the center of your scouting life. The patrol works closely together on shared projects, and everyone has their part to do. Once you and the other members of your patrol learn how best to work with each other you'll find that together you can do and be more than any of you could be individually. For example, when cooking on a campout, some scouts may cut vegetables, others start the fire, others prepare the washing water, and others assemble and heat the food. Only by working together can the patrol have a great meal.

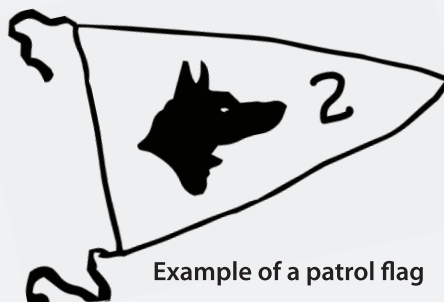
As a patrol, you'll elect a patrol leader who will serve for one year or a period agreed in your troop. The patrol leader's job is to organize the patrol, help everyone work well together, and represent the patrol at the court of honor. The patrol leader will choose a seconder, someone who will help the patrol leader and who can step in as patrol leader if the patrol leader misses an event or is called away.

Every patrol chooses a name, color, and a call. Traditionally, these have been animal names, but it could be almost anything that is meaningful for the scouts in your patrol. The patrol should make a flag representing your patrol name, and bring and display it whenever you go out as a patrol. If your patrol leader can't be at the next outing, they should make sure someone in the patrol who is attending has the flag. Your patrol call can be used by your patrol leader to call the patrol to-



Patrol Calls

Patrol calls could be traditional—for example, the Owl patrol hoots—or can be sillier—the jellyfish patrol shouting, “squish, squish!” Patrol calls can be words, phrases, or just sounds, and may be combined with action. Imagine when your patrol leader shouts, in front of 100 other scouts at a regional campout, “Alligator patrol ready to go!” and all the patrol members in unison open their arms into a V, clap them together and shout “Snap! Yum, yum!”



Example of a patrol flag

gether, to announce your arrival (loud and proud) at a troop, regional, or national event, as a signal to each other as you quietly sneak up on another patrol’s campsite at night, or any other time you can imagine.

If you’re in a young troop your scoutmaster, assistant scoutmaster, and other adults will work with you a lot. They may teach you the skills for your badges, plan the campouts and the menus, and determine the activities for meetings. As your troop gets more experience, those decisions and responsibilities will increasingly be turned over to the scouts.

Eventually, yours will become what is called a “scout-led” troop. Leading from within is really the best way to make sure the scouts in your troop are doing things that they find fun and interesting. Your patrol is the place where you’re all able to discuss what you’d like to do. You’ll decide what camping trips or hikes seem interesting, what badges to work on, what new experiments to try out. As each member of the patrol works out the scouting path most interesting to them, you’ll have opportunities to discuss what badges would make sense to work on as a patrol and which you might want to undertake on your own. Even badges you individually choose may involve your patrol in some way: your patrol may help you find what you need to learn a new skill to earn a badge, and some badges expect you’ll finish by explaining to your patrol what you learned.

Everyone in a patrol has a job. Some people may have special jobs that last for a season or the year (such as the Quartermaster who cares for any patrol equipment), but all members of the patrol share the job of being a good patrol member. Do you have ideas about a fun activity, or how to solve a problem or approach an activity or project? Share them in your patrol! Sharing works both ways, of course: each patrol member is also ready to listen to others’ ideas and think about how

ideas could be combined, shared, or changed so that everyone in the patrol gets to contribute and has a good time.

Patrols meet regularly to decide upon activities, plan upcoming events, or to get together and achieve a goal. Many troops have time during the regular troop meeting for patrol meetings, but patrols can also get together outside of the troop meetings. If it's hard to get everyone together because the members of the patrol live far apart, your patrol leader may be able to set up a video call or other way for the group to get together between meetings and prepare for your next great adventure. With enough experience and safety training, your patrol can even plan your own outings. And for those ideas that impact the whole troop, or need more adult help, patrol leaders can bring them to the court of honor.



What is it?

The court of honor is a regular meeting where the scoutmaster, assistant scoutmaster, patrol leaders from all the patrols (and, when invited, seconders) meet to plan troop business. More information about the court of honor, and other areas of scout leadership starts on page 343.

Your troop may hold regular patrol competitions where the patrols in your troop compete to be the best patrol in the troop. These are great opportunities for your patrol to show off your teamwork and scout skills. Typically, competitions last for a season such as the first half of the scout year and the patrol that earns the most points win a prize. Your scoutmaster would decide on the best prize for the winning patrol. They might choose a pizza party for the patrol, or volunteering the scoutmaster clean all your patrol's cooking equipment after the next campout, or the opportunity to display the Duck of Doom at all troop meetings until another patrol wins the next competition—whatever is fun and part of the traditions for your troop.

End of Chapter Reflection Questions

- Look at the table of contents for this handbook, then flip through the special proficiency badges. What seems most interesting? Why?
- What do you think your scouting path might look like?
- What does it mean to “scout out” something? What might that look like in your life?
- What are three things you already know that might help your new patrol?
- What questions about Pathfinders do you have? How might you find out the answers?



2

THE BEGINNING

Tenderfoot Requirements, Scouting Principles, and Investiture

As you begin this Pathfinding adventure, know two things: many have done this before you and none have ever done it like you will. Which Path shall you find? Which hurdles must you overcome? And which can you simply go around?

One plucky scout bears mentioning: Marguerite de Beaumont. On a misty September 4, 1909, in a place very near London, a gathering of scouts some ten-thousand strong came together. Marguerite joined the gathering. She was the patrol Leader for the self-named Wolf Patrol, the very first patrol of the Girl Guides. Baden-Powell asked Marguerite “Who are you, and what are you doing here?”

Imagine being asked that question by your hero, an idol, and the chief scout! Marguerite, unfazed—though a little frightened and shy—said “We are the Wolf Patrol of the Girl Scouts and we want to do scouting.” Baden-Powell said, “You can’t be, there aren’t any Girl Scouts.” To which the reply was “Of course there are. We are them.”

This courage to stand tall and be who you are is the foundation of not only the Girl Guides, but of scouting. Marguerite went on to have a 40+ year career as a guide and helper of the movement.



Marguerite de Beaumont

COURTESY OF 5th CAMBRIDGE GUIDES

With the compiled knowledge in this book, a scout will be able to survive and, indeed, thrive in a wilderness situation for at least 48 hours, but there is more to being a scout than camping, hiking, and nature study.

When a person decides whether to become a scout, they have a few hard questions to ask themselves. The process for becoming a scout is called *investiture*. The root word for this is invest. An investment is something for which a person extends effort, usually money but not in this case. However, there is an expense for a scout's investiture: Effort.

At the end of your effort to learn the basic scout skills of the Tenderfoot badge, you will have an opportunity to show others that you are invested in exploring how scouting can be a part of your life by taking part in a formal Investiture ceremony. If you're curious to peek ahead at what that looks like, you'll find it on page 36.

You cannot expect to see the benefits or the rewards if you skate through without applying yourself. And the reward is much greater with more investment!

Tenderfoot Requirements

It should be noted that a Pathfinder may not wear the Tenderfoot Badge until passing the Tenderfoot tests and making the Scout Promise in their Investiture ceremony.



How To Use the Following Page

Use the following page to record your progress. Your Examiner will initial and date each individual requirement as you complete it, and will signoff at the top of the page when you have completed all the requirements and earned the badge. Requirements can be completed in any order.



**Your Examiner should initial and date
as you complete requirements**



TENDERFOOT

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Know the following and understand their meanings. Be able to recite them.

- a Scout Law
- b Scout motto
- c Scout promise

2 Know the following and their importance. Be able to successfully demonstrate.

- a Scout sign
- b Scout salute
- c Scout handshake

3 Be able to make and know the meaning of the basic trail signs. (See Chapter 3.)

4 Know the composition, history of and how to fly and fold the American Flag. Understand and be able to describe the procedures for raising or lowering the flag. (See Chapter 6.)

5 Know several uses for a scout staff.

6 Tie the following knots and know where and when they are best used. (See Chapter 4.)

- a Square (Reef) knot
- b Sheet bend
- c Clove hitch
- d Round turn and two half hitches
- e Bowline
- f Figure 8 knot

7 Demonstrate how to whip the end of a rope.

8 Know something about the scouting movement:

- a Know about at least two figures from the history of scouting, the full name of WFIS, and be able to explain why scouting is called a "peace movement."
- b Be able to explain the meaning behind the name, number, and necker colors of your group.

Principles of the Scouts



1b

The Scout Motto: “Be Prepared”

What does it mean to “Be Prepared?” How do scouts become prepared? They learn scoutcraft, the set of skills you learn as a scout. The badges in this book will help you learn skills that are helpful, useful and may even let you save a life some day. Scouts become prepared for real life challenges by doing and learning many things. They try new activities, practice them—and sometimes fail. However, they keep going. Being able to keep going even when things get hard is one of the most important things you’ll learn in scouts.

“Be Prepared” is a motto that can describe both providing yourself with what you need for activities and adventures and knowing what to do in a difficult situation. If you learn to be prepared for many situations, you’ll find that it is much easier to give help to other people.

Being prepared for hiking or camping means knowing what to bring. As a scout, you should always bring the **10 Essentials**. Make sure to have these ten items with you whenever you go for a hike or other outdoor adventure. Your 10 Essentials might vary based on the adventure, the skills and experience of your fellow scouts, and the environment you’re visiting. Always check with your leaders for any special items you might need to pack. This is just a suggested list.

Ten Essentials of Outdoor Exploring

This list of 10 basic things that can fit in even a very small pack will help you be prepared for outdoor challenges.



HYDRATION: Water and water treatment supplies

Drink plenty of water while you explore outdoors! You lose a lot of water and salt when you exercise, and you need to replace them to stay healthy. Before heading out on your trip, pack plenty of water. How much water will vary based on the weather and terrain, but 12–16 ounces for every hour of a hike is a good start. For camping, you’ll want to bring at least a gallon of water per person per day. In case of emergency or if you cannot carry enough water for your whole trip, also carry water purification tablets or a water filter. These will allow you to collect water from lakes or streams. Never drink untreated water! You can get very sick from water that looks clean. Before heading to an area with untreated water, read up on how to purify water starting on page 181.

**NUTRITION: Food**

In case your plans change, you always want to have an extra day's supply of food with you. It is best to carry no-cook items with lots of salt, fat, and carbohydrates such as trail mix, peanut butter pretzels, hard cheese, and granola bars. Salty, high calorie foods are easy to carry while providing the energy and nutrients you need for outdoor activities. (But don't forget to switch back to fruits and vegetables for snacks when you get back home!)

**SUN PROTECTION: Sunglasses, sunscreen, and hat**

Sun protection is necessary to protect your skin and eyes against the harsh UV rays that cause sunburn and skin cancer. Carry sunglasses, sunscreen, and hats with you on all adventures. Sun-protection clothing such as pants and long sleeve shirts also reduce your exposure to the sun, as well as protect your skin from scrapes.

**INSULATION: Warm jacket, hat, gloves, rain shell, warm/dry socks, and thermal underwear**

Nature is unpredictable. Be prepared for sudden changes in weather conditions including cold temperatures, wind, rain, or snow. Pack an extra layer of clothing that reflects the most extreme situation you might experience. If you were trapped outdoors overnight or in a storm, you would need to stay warm.

**FIRST-AID SUPPLIES: First aid kit**

Be prepared for emergencies by packing first-aid supplies with you. Start with a pre-made kit and modify it to fit your trip and your medical needs—you can learn more about building a first aid kit on page 263. Check the expiration date on all items and replace them as needed. Include a small first aid guidebook in case you are faced with an unfamiliar medical emergency.



NAVIGATION: Map and compass, GPS system Navigation systems help you plan your route before your trip and orient yourself during your activity. Before going out, know how to use a topographical or relief map as well as your compass and/or GPS unit. It is smart to have and know how to use the paper map and compass as back up, in case the GPS cannot get a signal or runs out of battery.



ILLUMINATION: Flashlight, lanterns, and/or headlamp Make sure to bring a flashlight, lantern, or headlamp when you travel outdoors. They come in handy if you stay out after dark, need to look in a poorly lit area, or for some types of first aid. Headlamps are the preferred light source because you can still use both hands. Be sure to pack extra batteries, and to test all batteries before heading out.



FIRE: Matches, lighter, and fire starters

Fire can be an emergency signal and a heat source for cooking and staying warm. Pack matches (preferably waterproof) and fire starters—items that catch fire quickly and sustain a flame.



TOOLS AND REPAIR KIT: Duct tape, knife, screwdriver, sewing needle, thread, and scissors

Carry a basic repair kit with you to help repair equipment. The kit should include items such as duct tape, a knife, a sewing needle, thread, and scissors. Consider packing a multi-tool (a compact version of many tools that can include a knife, screwdriver, can opener, etc.). Be sure to bring any tools specific to your trip, gear, and activity; your kit should look very different for a canoeing trip than it would a long bike ride or a hike in the desert.



SHELTER: Ultra-light tarp/tent, emergency blanket, or plastic trash bag

In case of bad weather or an unplanned overnight stay, you need a way to create a simple shelter. This can include a lightweight tarp or tent. If that is too heavy or bulky, you can bring a mylar emergency blanket or heavy duty plastic trash bag.

Emergencies are never planned, so it is always good to be prepared! Short of a real emergency, why bring these things?



Scout Story

Alex and Morgan were exploring the woods near their home one day. It wasn't planned to be a long hike, but they brought along a pack with the 10 Essentials. They hiked a long way. Because it was sunny when they set out, they put on the sunscreen they had with them, and didn't get sunburned. They also drank the water they brought, so they didn't get dehydrated, and as a result could keep going. They had snacks, which made the journey more fun, and helped them keep up their energy levels. But then, it started to get dark and cold. They put on the jackets they had packed and started to hike home. However, it had gotten dark. Alex tripped and fell. Morgan pulled out the first aid kit and bandaged the injured knee. Then they pulled out flashlights to help them find their way in the dark. Unfortunately, they were lost. So, they pulled out their phone and used the GPS app to find their way back. If they had not been able to get home, they could have made camp with the tarps they had to create a simple tent and build a fire to keep them warm. But, because they were so prepared, they didn't have to do that.

Being prepared made their explorations both more fun and safer. Without the 10 Essentials and some scout skills, this hike could have been awful. Here is what a trip looks like without the 10 Essentials.



Scout Story

Wren and Rowan went hiking in the mountains. Although they both had been hiking many times before, this time they found the trail particularly difficult because an early spring storm had brought down many tree branches and other obstacles that they had to climb over or around. When the sun went down, they were nowhere near their planned water source.

In the morning, Rowan wasn't feeling great—he had a rash, and his legs were very sore—but they decided to continue their planned route. During the day, even though they were careful with their food and water, they ran out of both and when night fell, they found themselves stumbling on a dark trail for miles, tired, hungry, thirsty, and worried what might happen if Rowan's legs gave out. They made it back to the parking lot but were in no condition to go home and had to stay in a hotel. They both felt lucky they hadn't had even worse consequences from their poor decisions.

That's a true story, although the names have been changed, and a good example of how neglecting the 10 Essentials can cause a fun trip to turn sour and even dangerous.

Of course, there are other things you may need to be prepared for, because situations always differ. If your friend has an allergy, then knowing how to use an EpiPen® injector is another way to be prepared. And making sure they bring along that EpiPen® could be lifesaving. Learning about first aid is another way scouts are prepared and there is a long section in this book on first aid. However, taking care of a friend or family member can go beyond outdoor first aid into being a caring giver. This may mean when your parent is sick, you cook for them and do extra chores so they can rest, just as they would do for you.



1a

The Scout Law

As a scout, you will be asked to promise to follow the Scout Law. The Scout Law is a set of guidelines we follow as to create a personal moral compass scouts can use in all events or situations. A scout can always look to the Scout Law to help them decide how to behave and what to do in difficult circumstances.



1. A scout's honor is to be trusted.
2. A scout is loyal.
3. A scout's duty is to be useful and help others.
4. A scout is a friend to all and a sibling to every other scout, no matter to what class, country, or creed the other may belong.
5. A scout is courteous.
6. A scout is kind to animals.
7. A scout obeys orders.
8. A scout smiles and whistles under all difficulties.
9. A scout is thrifty.
10. A scout is clean in thought, word, and deed.

Remembering the Scout Law

Remembering the ten points of the Scout Law can be hard. It's a lot to keep track of. This little poem is a good way of memorizing the headings.

Trusty, loyal and helpful,
 Family, courteous, kind,
 Obedient, smiling, and thrifty,
 Pure as the rustling wind.

What does that last line mean? It's poetic, and "pure" is meant to remind us of "clean." Feel free to change it to something that will help you remember—some groups use "Cool as the rustling wind," others use "Awesome all the time."

What Does the Scout Law Mean?

Let's take a look at each line.

- 1. A SCOUT'S HONOR IS TO BE TRUSTED.** This means you are trustworthy, but what does that word actually mean? It means that a scout doesn't lie or cheat, but instead does what they say they will do. Acting with honor might sound old fashioned, but it means that you are a person of integrity who does the right thing even when it is hard.
- 2. A SCOUT IS LOYAL.** How do you go about being loyal? You should always strive to be supportive and reliable. This means you treat those in your group with respect and dignity. You put others first and stick with them through thick and thin. When your patrol needs you to help them set up a tent in the rain, you do it, instead of quitting and going home.
- 3. A SCOUT'S DUTY IS TO BE USEFUL AND TO HELP OTHERS.** Part of becoming a scout is learning to be helpful and useful, but even a brand new scout can start working on doing at least one good turn every day. Doing a good turn is the scout way to say that you did a good deed to help someone else. A good turn can be a little thing like cleaning up a mess you didn't make, or something bigger like making your family dinner. It means keeping your eyes open to how you can help the people around you.

Pathfinders make the world a better place. They do community service projects; they help neighbors with chores and lend a hand even when they don't really want to. You'll learn first aid skills so you can help those who are injured—you may even save a life! It may not sound cool or glamorous to help others, but actually nothing feels better than knowing you've really helped another person.

While your Pathfinder troop will be doing community service projects, performing community service doesn't have to wait until a special date or project. You can choose to shovel snow or rake leaves for a neighbor. Return a lost pet. Watch out for younger children on the playground and help them find their parents if they become lost. If you find a cell phone on the ground, what would you do? If it's unlocked, you may be able to scroll through the contacts and call their ICE, In Case of Emergency, contact to find out how to return the phone. If you are in a restaurant or store, you should turn in it into their lost and found. Being helpful to not just your family and friends, but also to your neighbors and community is an important part of being a good scout.

4. A SCOUT IS A FRIEND TO ALL AND A SIBLING TO EVERY OTHER SCOUT, NO MATTER TO WHAT CLASS, COUNTRY, OR CREED THE OTHER MAY BELONG.

What does it really mean to be a sibling to every scout? This means that you help them, the same way you would a member of your own family. It does not matter if this other scout is rich or poor, religious or not, or has skin different from yours. You help them in whatever way you can and accept them as they are.

What else can you do to be a friend? You can be a good listener. Being a good friend is not just about sharing your snack if they forgot to pack one. It also means that you let them tell you when they feel sad, mad, or scared. That you take their feelings into account and that when they ask for help, you do what you can to help them.

Sometimes, being a good friend means realizing when your friend has a problem that requires an adult to help them, and then helping them find the right adult. If you aren't sure who the right adult is, you can talk to your parent or caregiver, or your scout leader so they can provide guidance on finding the right adult to help.

5. A SCOUT IS COURTEOUS. What does it mean to be courteous? This means you are polite and use good manners with everyone you meet. Scouts say please and thank you and listen when others are talking. Most importantly, scouts are polite and respectful to everyone including the elderly, the homeless and those with disabilities.

6. A SCOUT IS KIND TO ANIMALS. Scouts are kind to animals and do their best to prevent them from experiencing pain or injury. They are kind to domesticated animals and helpful to them. They respect that all living creatures deserve to live a good life and they work to maintain habitats for wildlife populations. Scouts work to preserve endangered species and protect both wild and domesticated animals from harm.

Killing animals for food is allowed as humans are omnivores. Scouts who hunt should be sure to learn how to only take clean shots and kill in a way that is not cruel. If an animal is dangerous and must be killed, this too must be done in a humane way.

7. A SCOUT OBEYS ORDERS. Can you imagine a camping trip where no one does their camp chores? Where campers sit around waiting for someone to put up their tent and make their dinner? No one gathering firewood would mean there was no cozy fire. No one cooking would mean no dinner. A camp-

ing trip like that would be very miserable indeed. It is your duty to participate in your troop's activities, both the fun parts and the work.

Also, part of the fun of scouting is that it can be dangerous. This is no video game with unlimited lives. If your patrol leader yells at you to “stop” while hiking, you must obey immediately—even if you don't know why you are stopping. That is exactly the point! Your patrol leader may have seen a snake you were about to step on or heard a cry for help. They may have realized one of your patrol members was falling too far behind.

Your group will also lay out rules to follow for scout events and camping. Listen to the rules, then remember and follow them. If you have questions, be sure to ask them when your leaders are explaining the rules, not after deciding not to follow them and putting yourself or others in danger.

Lastly on this topic, there will be times that you should not obey an order. If the order is going to cause you harm, is unethical, against your religion, illegal, or causes you to act against your own conscience, do not follow it. For example, if your patrol leader told you to kick a puppy, you wouldn't do it. Not only do we all know it is wrong to do that, but it also breaks the sixth point of the Scout Law. However, times when a scout may need to disobey orders aren't always so obvious.

Scout Alert

There are many risks in scouting, and realizing that you are not omniscient, or all knowing, and must follow directions for safety is essential to your safety and everyone else's.



Scout Story

Once there was a happy patrol of six Pathfinders: Joe, Mo, Ava, Jenna, Oak, and Ash. One morning their GSM (Group Scout Master) brought them donuts and ordered them to eat. The GSM thought this was a delightful order to give and handed off the box of donuts to the group. Joe stood holding the box and asked, “Who wants a donut?” Mo said, “I can't, I'm allergic to wheat flour.” Jenna agreed, “I can't either, I'm allergic to dairy and I know I can't eat those without getting a stomachache.” Oak said politely “No, thank you.” Oak had type one diabetes, and while donuts were acceptable sometimes, they knew that it was a bad choice to have one right now. Ava had given up sweets for Lent and Ash couldn't have any due to fasting for Ramadan. Joe decided it went against his conscience to eat a treat in front of them when they couldn't have any. So, the entire group disobeyed the order to eat the donuts and discussed what to do with them instead.





Smiling and Whistling

Since the beginning of the scouting movement, scouts have used this expression to remind ourselves to do our duty and to help others in good cheer. Smiling and whistling can cheer us up when we don't feel cheerful, and are infectious, lifting the spirits of everyone around us.

In our story, three scouts disobeyed to keep themselves safe, as they had health reasons to refuse. Two scouts had religious reasons to refuse, which are always to be respected. And Joe decided it would be nicer for everyone if he abstained with his friends. While our whole group had reasons to not obey orders, you'll likely find that if you can't follow

such an order, you might be the only one. That's acceptable too. Your safety, well-being, personal beliefs, and integrity are always the top priorities.

8. A SCOUT SMILES AND WHISTLES UNDER ALL DIFFICULTIES. “But I can't whistle!” There's always one scout to say this when we get to this one. While whistling a tune with your patrol can be fun, it isn't necessary to follow this part of the law. The message here is to have a positive attitude, even when it is hard to do so.

If you scout long enough, you'll eventually have a camping trip where you are drenched in rain and covered in mud. Instead of having a fit or whining about the weather, scouts keep a positive attitude and cheer each other on. Keeping a good attitude allows you and your patrol to find solutions and work together to make things better, no matter what challenges you face.

9. A SCOUT IS THRIFTY. Thrifty people use their resources wisely. This can mean different things to different people. One way to be thrifty is with money: you save your money and don't spend it on unnecessary items. You might be thrifty with environmental resources, by making your own equipment or repairing broken things instead of buying new ones. You take good care of the things you own, including your camping gear, so they stay in good working order and will need to be neither repaired nor replaced too soon. Scouts can and should be thrifty in many ways.

10. A SCOUT IS CLEAN IN THOUGHT, WORD, AND DEED. You might ask, “Does this mean I need to take more baths?” While being literally clean is good, that is not actually what this one is about.

Using clean words, means that you don't use profanity or speak to and about others in a vulgar or disparaging way. You never use slurs or talk down to other scouts. Although it's harder than just looking after yourself, it's also your duty as a scout to remind other scouts to also not use foul language.

Why? Because allowing people to say ugly things and use hurtful language is injurious to everyone and can damage the friendly atmosphere we all want to have at scout events.

Being clean in deed means that you treat everyone with respect. You never play pranks to hurt, embarrass, or humiliate others. You understand that you shouldn't touch other people without permission. You do good things instead of bad ones, and to treat people as you would expect to be treated.

The hardest part of this rule for many scouts is the “thought” part. What can it hurt if you think about doing or saying something bad or inappropriate? The truth is that the more you think about doing something you shouldn't the more likely you are to do it. Choosing to focus your thoughts on positive things you can do will lead you to do good more frequently and help you avoid inappropriate actions. The person most likely to talk you into doing something, good or bad, is you.

There is a reason this point is saved for last; it is the culmination of the other nine. If you can be a friend to all, if you can keep a positive outlook in the face of adversity, if you are useful and help others, if your word is to be trusted, then you'll be clean in thought, word, and deed.

That's it! These 10 points make up the whole Scout Law. It covers a lot of topics. If you have questions about what the points of the law mean, or how to apply them, be sure to discuss it with your scout leader. Many Rover scouts—adult scouts—will tell you that the Scout Law is as good a code of ethics as you'll find anywhere and living by the Scout Law is a straightforward way to be a good person.

The Scout Promise

When joining the scouts, a new scout will be asked to make a promise. The framework of the promise is simple—saying you take the promise seriously, that you will follow a code of ethics and support your community, help others, and follow the rules of the Scout Law.

When *Scouting for Boys* was published in 1908, it asked a scout to promise, “I will do my duty to God and the King.” Here in the United States, we've never had a King, and scouts have a wide range of opinions about the existence and nature of any divine beings, so the promise has been adapted over time. Here are three examples; you could choose to use one of them or, if none feels quite right, work with your scoutmaster to define your own, making sure it covers all of the points in the framework.



1c

The Scout Promise (3 variations)

“On my honor, I promise that I will do my best
To do my duty to God and my Country,
To help other people at all times,
And obey the Scout Law.”

“On my honor, I promise that I will do my best
To do my duty to my conscience and my community,
To help other people at all times,
And obey the Scout Law.”

“On my honor, I promise that I will do my best
To render service to my country,
To help other people at all times,
And to obey the Scout Law.”

The Scout Promise Explained

We start our promise with “On my honor.” Why? What is your honor? Honor is a traditional word that here stands for both your personal integrity and your reputation as an honest and straightforward person. We promise on our honor because we recognize that breaking this promise may lead others to believe that we don’t take our promises seriously. During the investiture ceremony, when a new scout is asked if they know what their honor is, scouts usually use their own words to say, “It means I can be trusted to be truthful and honest.”

“I promise that I will do my best” simply means that you will try. You won’t always succeed fully, but you intend to do the things in the rest of this promise.

“To do your duty to...” means to do what you should do based on a moral code and in support of your community. These are closely related to the promise to help and aid others at all times, but what exactly does that mean? How can a scout be helpful? How would a scout render service to their country? Are these just words we say, or is there more to this promise than it first might seem?

Well, you can help your country or your community by taking care of the land, picking up litter, cleaning up the planet, and doing your best to reduce, reuse and recycle. You can participate in community service activities that support the health of people or animals in your community. And you can be a concerned citizen and write to your lawmakers if you see that something needs to be done that is too big for you to do alone.

Helping other people at all times sounds hard, but it isn't. The important part is simply being willing to help them. As a scout, you are the kind of person who commits acts of kindness each day. You help around your home by doing the dishes, putting away groceries or mowing the grass. You help your siblings with their homework. In other words, you keep your eyes open and do what you can. You are even willing to help strangers and to do the right thing when it is hard.

What skills do you have that you can use to help others? Most of us already have some of these skills—whether we know it or not—and as scouts we work to develop more of them. Learning how to help others is not only an important part of being a good scout, but also of being a good person.

Reflecting on your promise is important. If you have questions about the Scout Law, promise or motto, be sure to discuss those with your scout leader.

Always Be Scouting

Whenever you go out in public you represent scouting, whether or not you are in uniform. How you act is how people will believe scouts behave. Always think to yourself: "Is there something I can do to be useful?" Cleaning up behind yourself, both at home and in public, is a good way to show courtesy and helpfulness. Don't treat others poorly for any reason. Just because someone gets paid to clean up after you at a restaurant or hotel doesn't mean you need to leave a big mess. Picking up behind yourself, your friends, and even cleaning up the trash strangers leave at the park, makes the world a better place.

Scouting at the Grocery Store

Ash loved helping their mom at the grocery store. She always let Ash pick out the cereal for the week, and a treat. "Ash, find the apples while I get the lettuce," Mom would say. So, Ash would hunt for one item while their mom found another. That way, they got the shopping done faster. However, Ash didn't just help their mom. If a bottle was leaking in the cart of someone else, Ash would point it out. They spoke to the little kids in the grocery store and told them they were "good helpers" even though they were too small to do much. Ash smiled at the babies, who smiled back. If something fell off a shelf, Ash would put it back and pick things up, no matter who knocked it off. Ash was also helpful to older people who sometimes could use assistance getting something from the bottom shelf, as stooping down was hard for them. And when they were done shopping, Ash helped bag the groceries, whether the store had someone to help with that or not. While bagging, they were always careful not to set something heavy on something lighter and damage the food. Canned goods needed to go near the bottom of a bag, and not on top of the eggs, bananas, or chips.



By doing all these things, Ash was showing what it means to live out the Scout Law and promise. Ash was a good helper for their mom, other shoppers and the people who worked in the store. A cheerful attitude and kindness made the chore of shopping a fun outing full of opportunities to do a good turn.

You may never encounter something as straightforward as a little old lady calling out for a scout to help her cross the street, but there are always ways to help the people in your community, if you just watch for them.



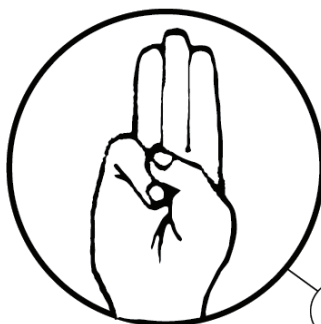
2a

The Scout Sign

While reciting the Scout Promise, motto or Scout Law, scouts make the Scout Sign. This is a simple hand sign, where you hold out your right arm at a right angle to your body and hold up your three middle fingers of your right hand. Your pinkie and thumb touch and fold down, with your palm facing forward.

Your three fingers represent the three points of the Scout Promise; your personal duty, helping others, and obeying the Scout Law.

This sign is used by scouts around the world. The Scout Sign is often held up

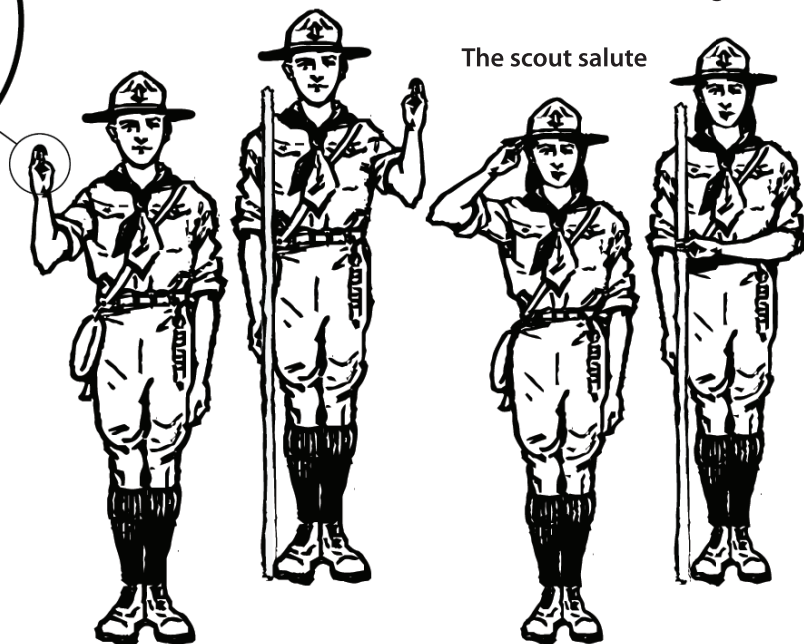


The Scout Sign

The Scout Sign
when holding
a staff

The scout
salute when
holding a staff

The scout salute



during gatherings of scouts, and when a leader holds it aloft, all scouts know it is time to be quiet and listen. Scouts close their mouths and make the sign in reply until all scouts are making the sign silently.

The Salute

When you are in uniform, you may also be asked to salute the flag at raising or lowering, or during the National Anthem or the Pledge of Allegiance. The scout salute is simple: using your right hand in the Scout Sign, bring it to beside your eyebrow and stand straight and tall. If you are wearing a hat, put your fingers to the brim of your hat. If you are wearing glasses, touch them to the edge of your glasses. That's all there is to it!

If you are holding a staff or flag in your right hand, salute by making the Scout Sign across your body at elbow height with your left hand.



2b

The Handshake

Scouts also have a special handshake.

When shaking hands officially with your patrol or your leaders, make the Scout Sign with your right hand, and shake hands with your left! In most cases in the U.S., people shake hands with their right hands, so

the scout handshake is unique. It is a sign of friendship and trustworthiness and should always be offered when meeting new scouts of all kinds.



2c

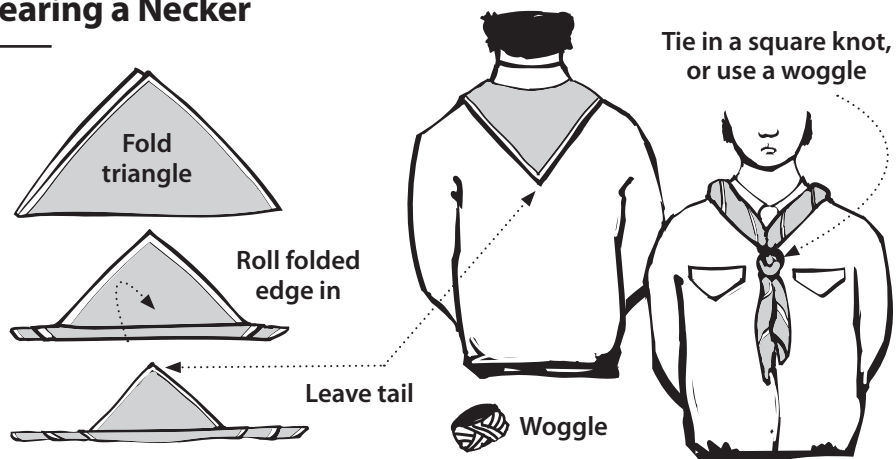
The Scout Uniform

Scout uniforms are worn as practical clothing for outdoor activities and to show off your affiliations and skills. Pathfinder uniforms have three main components: shirt, necker, and hat. There are several smaller components that get added to the shirt and hat, mostly badges, patches, and pins.

The uniform shirt is a grey, long-sleeved, button-down shirt. It has a collar, pockets, and usually epaulets (shoulder straps), and tabs to hold sleeves in a rolled-up positions. It's a shirt that will protect you from the sun, brambles, and bugs. The button-front and sleeve rolling tab make is a convertible layer of clothing to keep you warmer or cooler at different parts of the day or year.

Our large colorful square neckers identify us immediately as scouts. Each scout group has a necker in a pattern of colors unique to that group, and they're worn

Wearing a Necker



by every member of the group—Otters, Timberwolves, Pathfinders, and Rovers alike. To wear as part of your uniform, fold your necker in half diagonally (into a triangle), with any stripes on the outside, and roll it up, starting at the long folded edge and working towards the point. Leave some of the triangle unrolled and drape around your neck. Fasten with a woggle or a knot.

There are two official hat options for Pathfinders: a felt four-dent campaign hat—like Smokey Bear’s and perhaps your scoutmaster—or a red felt beret. Less formally, many scouts prefer a lighter-weight sun hat, like a packable nylon one, but whatever you choose, it’s highly recommended to have something to keep the sun off your face and neck during the day and keep the heat on your head at night.

Most scouts don’t wear their full uniforms all the time at during every scout activity. It’s acceptable to adjust for climate, sensory issues, and personal preferences. No scout should ever be excluded because of uniform concerns. For longer scouting activities like campouts or campaigning, leaders often call times for “full uniform” or “just neckers.” Some groups also use T-shirts specific to their group or OSG for times when full uniforms are not necessary but it’s good to appear in your “team gear,” looking like a group that belongs together.

Badges, patches, pins, and cords! These all have specific meanings and specific locations where they belong on your uniform. Do you know the subtle difference between a badge and a patch? Every fabric piece attached to your uniform is a patch, but the badges are the ones you have *earned*. For example, you will have patches showing your scout affiliations—WFIS, OSG, and your own group. You may get non-uniform patches at events—a Hullabaloo or a Moot, for example. Badges are earned by gaining new proficiencies and dedicating yourself to scouting—we show off on our uniforms that we have the skills of a Tenderfoot, a camp cook, or a team sports player. (Look at pages 378-379 for badge placements.)

The Scout Staff

The scout staff is a wooden staff that has been customized to be helpful in all sorts of outdoor adventures. All Pathfinders are encouraged to make a scout staff and bring it with them on hikes and camping trips.



5

Although there are no specific requirements to turn a walking stick into a scout staff, common customizations include making a grip by wrapping 50 feet of paracord around the staff—and now you have rope with you wherever you go. A hook, securely screwed into the top end, will be handy more often than you think. Scouts cut notches into the staff to measure inches or feet. Some wrap duct tape, or sometimes fishing twine and hooks, to have when needed.

You can also customize it for yourself, marking notches for each of your 5- or 10-mile hikes, carving the *fleur-de-lis* for decoration, or many other possibilities.

Once you have your own staff, you'll find it to be useful for so many things! Used either by itself or with other scout staves, it can be used to improvise a stretcher and help safely move an injured person, or it can be used to make a tripod to hang a pot over a fire. You might use it to help scale a high obstacle such as a wall.

You could also use it to make patrol tents or shelters, and if you know its height, you can use it to measure the height of other things, as well as distances (see Chapter 16, Measurements and Map Making, for some ideas on this.) It's a good practice to mark at least a foot of the scout staff with individual inches, so that it can also be used to measure small items. What other uses for a scout staff can you think of?



Scaling a Wall?

How do you scale a wall with a scout staff? Here's the secret. If you're out with another scout and come across a barrier you need to get over, first have the stronger scout cup their hands so when you put in your foot, they can give you a boost up. Now, once you're on top, reach down with your scout staff so the scout who helped you has better leverage to climb the wall—but be careful to not let them pull you off!



Investiture Ceremony



Scoutmaster or Senior Patrol Leader (SM): Welcome scouts and friends, today we are gathered to invest a new scout to the _____ (*Troop number and name*). A scout must first gain some simple skills and learn the Scout Law to be invested in the troop. Troop, please join me in the Scout Law.

Troop: (*Repeats Scout Law together and audibly.*)

1. A scout's honor is to be trusted.
2. A scout is loyal.
3. A scout's duty is to be useful and help others.
4. A scout is a friend to all and a sibling to every other scout, no matter to what class, country, or creed the other may belong.
5. A scout is courteous.
6. A scout is kind to animals.
7. A scout obeys orders.
8. A scout smiles and whistles under all difficulties.
9. A scout is thrifty.
10. A scout is clean in thought, word, and deed.

SM: _____ (*invested scout's name*) please step forward. Have you come here today willing and wanting to join the troop?

Scout: Yes.

SM: Do you know what your honor is?

Scout: Yes.

SM: What is your honor?

Scout: *(Brief reply of their choosing, indicating that it means the scout is trustworthy.)*

SM: Do you know the Scout Promise?

Scout: Yes.

SM: Are you willing to make this promise here in front of the troop?

Scout: Yes.

SM/Scout: *(Makes the Scout Sign with scout, repeat-after-me version of Scout Promise preferred by the scout.)*

On my honor I promise
 To do my best
 To do my duty
 To _____ *(God, my conscience, country, community or other or all)*
 To help other people at all times
 And to obey the Scout Law

(Scoutmaster presents the Tenderfoot badge and places the necker around the scout's neck if the scout agreed before the ceremony that it would be acceptable to do so. All scouts join in "Hip-Hip-Hooray!" or other congratulatory cheer.)

SM: To your patrol, quick march. *(Newly invested Tenderfoot scout returns to pre-chosen patrol position.)*

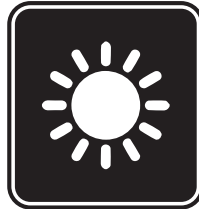
I hope that each of you invested scouts will remember this ceremonial entrance into the troop and the movement of scouting fondly. The investment you'll make as a scout in this movement will pay dividends for the rest of your life. Those rewards may not be your own but, as Lord Baden-Powell wrote, "the most worth-while thing is to try to put happiness into the lives of others."¹ Every day, every trip, every hike, every scout meeting, every community service opportunity, every

¹ Robert Baden-Powell, Letter September 1940.

parade, each time you smile and whistle or do a good turn or pay it forward lets this investment grow. And one day, young scout, one day, there will be peace.

End of Chapter Reflection Questions

- What does it mean to you to be a scout?
- What are some different ways to “Be Prepared”? What is one thing you do to be more prepared?
- Why do you think it can be important to make a promise when you first take on a new activity or a big change?
- How can you apply the Scout Law in your day-to-day life?



3

THE OUT OF DOOR SCOUT

As you've seen, scouting is as much a way of living your life as it is about doing particular activities and learning specific skills. Scouting includes being of service and caring for your fellow humans, animals, and the earth. Enjoyably, much of scouting is done outdoors. And the skills you learn while scouting can make your adventures in the outdoors broader by opening doors to more outdoor activities in a way that is safe, fun, and comfortable.

While scouting may come into play in many areas of life, the out of doors scout may go backpacking, birding, bicycling, boating, camping, hiking, mountaineering, rock climbing, skiing, and spelunking. Not all at the same time, of course! If there's an outdoor activity or adventure in which you're interested, chances are good that there's a place for it in scouting. And while you're at whatever outdoor activity you're doing, you may be learning other activities through also sleeping, cooking, and relaxing in the outdoors.

There are, of course, some things to remember while you're outdoors. One of those is how to be safe in your chosen outdoor activity, and you're going to see safety things emphasized over and over (and over) throughout this manual. So, here are a few basic safety things that should be mentioned up front:

When you're hiking, you want to wear good shoes with dry socks. Bring an extra pair of socks in case the ones you start out with get wet. Sweat, puddles, and river crossings can all leave you with wet feet. Wet socks will lead to blisters, and hiking with blisters is miserable and painful.

When you're out camping, give careful thought to where to put your tent. Look all around and think! If it rains, where will the water go? Water always runs downhill and collects in ditches. Don't pitch your tent where a big puddle will form. Check for sharp rocks and other potential hazards before getting out your tent. Also, look up before pitching your tent. Are there any dead tree branches above that could break off, fall, and hurt you? If so, find another spot.

If you are hiking *and* camping (backpacking), think about how to organize everything in your pack. Put the stuff you'll need first, or that you don't want smashed, at the top of your pack where you can access it easily and quickly. You can pack clothes in Ziploc bags to keep them dry and easily organized. And bring a spare pair of shoes, like flip flops, to wear once you're at your campsite to give your feet a break from your hiking boots.



Are You Ready?

You should also give some thought on how to take care of your gear when you're *not* using it. Many sleeping bags should be stored in a big, loose bag, rather than packed in the small cinch sack, and cooking gear should be stored clean and dry so that it's ready to go for next time. What gear do you have for your outdoor adventures? How should it be stored when your focus is on indoor activities?

Do you know what animals and plants are in your region that you need to be aware of? If you're in an area with bears, you'll want to know to keep the bears from coming into your camp and making a buffet of your meals (for example, by bringing a bear-proof container or hanging your food out of reach, or keeping all food locked in cars if you're car camping). If your region has dangerous snakes, learn how to identify them, and then steer clear. Do you know how to identify poison oak or poison ivy? Definitely know this before you pitch your tent in a patch of it!

Do you know how to start a fire and have what you need to do so when appropriate? There are many ways to start a fire, and the cooking chapter (Chapter 14) lists a variety of different kinds of campfires. If your outside activities might include a campfire, be sure you know how to start one safely. Work with your scoutmaster on this skill until you feel that you can do it independently. It's a good idea to know more than one way to start a fire, so that if your lighter stops working, you can still get a nice blaze going. Often, this fire-building skill works hand in hand with the knife skills (making a feather stick, for example) and axe skills (cutting wood to appropriate size) which are covered in Chapter 15.

Finally, keep a close eye on weather conditions and predictions, and plan accordingly. And take extra gear along so that you can stay warm (if it will be cold) or

cool (if you’re facing extreme heat). You’ll be much more comfortable, and safe, if you’re prepared.

These might’ve seemed like a lot of info and rules, but they are all focused on giving you the most leeway to go out there and explore! The out of doors scout is engaged in the world around them. It is a wonderful place to be.



“Leave No Trace”

While in the woods, it is important to follow the seven principles of “Leave No Trace.” This can be summarized with the short poetic phrase, “Take only memories, leave only footprints.” But that doesn’t sound like seven things, does it? The seven principles spell it out a little more. They also lay out a simple guide for having good manners in the woods. Pathfinders work to follow all parts of the Seven “Leave No Trace” Principles wherever they go.

The Seven “Leave No Trace” Principles¹

1. Plan Ahead and Prepare
2. Travel and Camp on Durable Surfaces
3. Dispose of Waste Properly
4. Leave What You Find
5. Minimize Campfire Impacts
6. Respect Wildlife
7. Be Considerate of Other Visitors

Plan ahead and prepare sounds a lot like our motto “Be Prepared” doesn’t it? But how is this part of taking care of the earth? Because a good plan means you’ll have less waste, create less trash and be a good steward of the area you are in. When you make a plan for where you’ll go and what you’ll do, you’re less likely to have problems and that is always a good thing.

¹ ©1999, Leave No Trace Center for Outdoor Ethics.

Travel and camp on durable surfaces means that you make choices to hike and camp on ground that won't be damaged by your presence. You wouldn't set up your tent on a patch of endangered flowers, right? So, look for paths and campsites that have sand, rock or ground that won't be harmed by your tent, campfire, or your boots. While hiking, stay on the trail.

Dispose of waste properly means you pack out your garbage if there isn't a trash can. Not only do we not litter, but we also don't want to leave left over food where wild animals can get it, because this can lead to problems for the animals. Animals who get used to human food can become a nuisance and that won't end well for them. Remember, a scout is kind to animals.

Leave what you find is exactly what it sounds like. It is wonderful to observe nature. The rocks, the trees, the flowers, and the animals, but it is important to leave them where you found them so they can maintain their place in the ecosystem.

Minimize campfire impacts means not only that you don't let your fire turn into a forest fire, but that you have an appropriately sized fire that doesn't damage local plants. If your campsite has a fire ring or grate, use it. It is a safe place to put a fire. If your site doesn't have one, and campfires are permitted, be sure to create your fire ring away from the base of trees or other plants. Plan for the smallest fire that will meet your needs. Place rocks around the ring, if possible, to help contain the fire and make other campers aware of where the fire should stay. When you are done with a campfire, be sure to put it out completely and not to let ashes or coals wash into local streams or lakes.

Respect wildlife doesn't mean you should offer to shake hands with the animals you see, but to stay back from them and let them go about their business while you go about yours. While our Scout Law says that we are kind to animals, respecting wild animals means we don't try to pet or tame them. Wild animals are happiest when allowed to be wild.

Be considerate of others is the last "Leave No Trace" principle. This one is important because we want everyone to enjoy the outdoors. It is important to have good manners wherever we go, and hiking and camping are no exception. One thing to keep in mind is that many people venture into the outdoors to get away from other people. It's acceptable to smile and say "hello" when you pass others on a trail, but don't insert yourselves into their space. Find your own room to enjoy, and make sure your volume doesn't intrude on the ears of those around you.

Be sure to step far off the trail when you take a break, so other hikers can proceed on their own hikes. When hiking in the mountains or hilly terrain, if you're coming

downhill and see others coming up, make way for them. This is because, coming up-hill, they can't see as far ahead as you can. Whether hiking or biking, let others know when you are coming up behind them, and say something before you pass them. When hiking in a group, stay single-file and don't take up more than half the trail space. When you choose a campsite, be sure to set it away from the trail and leave room for other people to also camp if that is appropriate.

Tracking and Sporing

The skills of observing and tracking have been crucial to humanity's survival since our very beginning. Early hunters knew how to read the land and deduce the actions and movements of animals from signs—the impacts they left behind—on the environment. Once the animals were tracked down, hunters had to know how to remain hidden while moving in to harvest their prey, lest they frighten off what they were hoping to make their next meal. Then they had to find their way home from a long hunt without a compass.

Here you'll read some tips and tricks you can employ to blend in with your environment and to follow intentional and unintentional trails. Learning these skills lets you more closely experience and understand nature. It can also be fun to sneak up on your patrol, play capture the flag, and other games of seek and find. The more you test these skills out, the more you'll learn what works and what doesn't!

Laying a Trail

Learning to follow a trail that was created for you is the first step in learning tracking. If you can't follow a trail that was made to be followed, your hope of following an animal's signs isn't great. There are many ways to mark a trail, and you should learn to both mark a trail and to follow a variety of trail markings.

Scout trail signs made of rocks, leaves, sticks and grass use natural elements that can be found along the trail and may even be left for others to follow without worrying about any impact to nature. As they are part of what you found at the site, they do no environmental harm. However, if your designs block a trail or will impact others, be sure to remove them when you are done using them. For example, if you're using trail signs to guide your patrol to a particular destination,


















the last member of the patrol to pass through should scatter the materials for each sign as they go. That way, they won't confuse other travelers or reduce the others' enjoyment of their time in the outdoors.

The chart below shows the basic trail signs you need to learn as a Tenderfoot. Notice how many of them are simply arrows pointing the way to go. The best trail signs will never be small or hard to find. They are clear and easy to interpret.

Cairns are stacks of rocks that are human made. Sometimes cairns can be huge or decorative, but even our small trail signs count as cairns. It is important to be aware that in some state and federal parks, the building of cairns is prohibited, as many are used to mark sites and trails of historic significance. Any newly built cairns in unexpected places may cause confusion amongst visitors attempting to use them for navigation. If you use rocks to mark a trail for your patrol, be sure to remove them when you are all done.

Trail Signs

Straight ahead	Turn right	Turn left	Do not go this way
			
			
			
			



Number of paces in the direction indicated



"I have gone home."

Following a Trail



3a

Established Trails

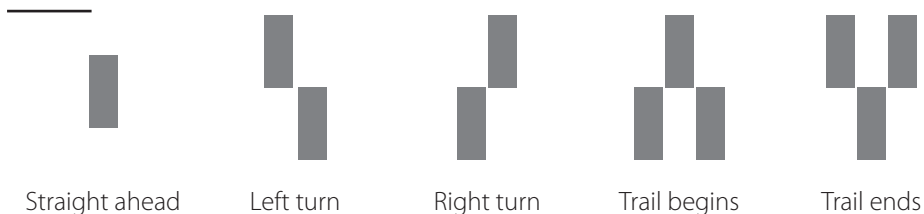
Sometimes you're on an established trail with no need to leave your own trail markings. Trails established and maintained by government agencies or private organizations will be marked with a few common types of markers.

For example, New York State uses a simple system of plastic discs fastened to trees or posts. Many will have the symbol of the NYSDEC or the park commission they are part of, like ADK for the Adirondacks or FOOT TRAIL for the Catskills.

There is another system that established trails use, and once you think about it, it makes a lot of sense. This system uses a simple rectangular marking painted on a tree or post about 2 inches wide and 3 to 4 inches long at about or just above eye level. If multiple trails exist in an area, the marking will match the color of the trail you are on. To help direct people on the trail, there is a second symbol used to point you in the correct direction. It is made of two rectangles of similar size and shape—but with an important difference. There will be a lower rectangle, centered on the tree and a second rectangle above and diagonally left to direct you to the left and above and diagonally to the right to move you right. Think of it this way; the lower rectangle is the direction you are coming from and the upper one is where you are being directed.

Lastly, there is a symbol to let you know where a trail ends and where it begins. This is made of three of the marker rectangles arranged in a triangle. If the arrangement points up then you are at the start of the trail. If the arrangement points down then you are at the end of the trail.

Trail Blaze Directions



Their only drawbacks are that paint eventually flakes or washes off, or a vandal could scrape it away. The colors can also blend in with foliage or the bark, so you should keep a sharp eye out for them. Plastic or metal markers tend to last much longer but they require wire or nails to keep them in place, so they may damage or kill trees. They can also be stolen.



Trail Tip

A good option is to carry a chunk of sidewalk chalk to leave temporary markings. The colors can be vivid or muted as necessary and it will wash off after a few rainstorms, thus saving you from having to clean up after yourself. If each scout carries a unique color, you can track individuals in your patrol easily.

If you ever find yourself needing to leave your own trail markers you should use the scout trail signs on page 44, the same ones you used to gain your investiture. Other scouts will recognize them, and they are less intrusive on the environment. Do not hack living plants or carve symbols into living trees or rocks. That is destructive and ugly. Don't use spray paint either, as many surveyors, loggers and landowners may use paint. Surveyor's tape can be useful for marking your

own trails but should always be recovered when it is no longer needed.

For a night hike, you may choose to use glow sticks or reflective push pins that can be easily pushed into a stake or the bark of a tree. These small push pins are nearly invisible during the day but can make a trail easily visible for those using a flashlight late at night or in the wee hours of the morning. Once again, be sure to go back and remove them when your event is over. Having your patrol mark a trail for younger scouts to follow on a night hike and then going back to remove the markers once the younger scouts pass through can be a fun group activity.

The Stories Behind the Spoor

Tracking animals or people involves finding their spoor. Spoor is the scent, tracks or droppings left by the person or animal as they passed. Both spooring and tracking mean finding and following this trail of clues.

Part of being a good tracker is not only being able to spot and follow a set of tracks, but to practice discerning something about the creator and what they were up to when the tracks were made.

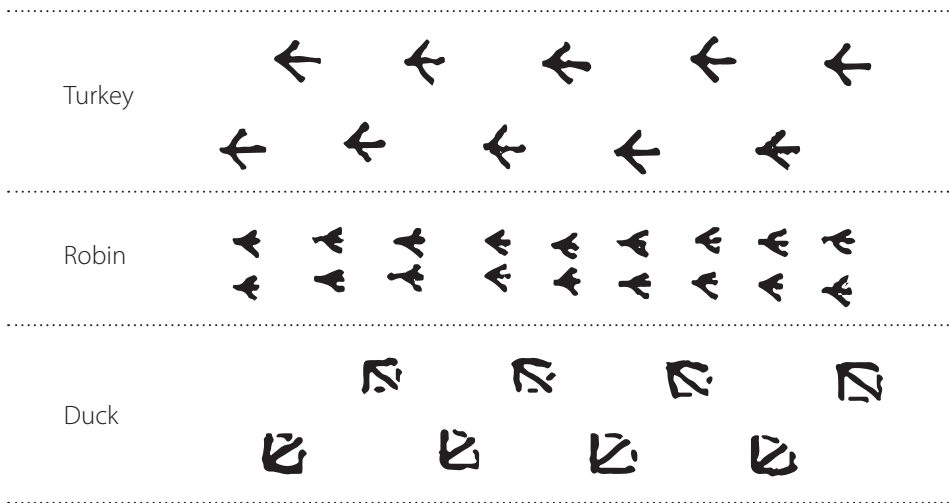


Scout Story

Imagine you go out the morning after fresh snowfall and you find fox tracks in your yard. The tracks are fresh, not filled in with any snow at all or crusted over. They come in from the neighbor's yard, and you're able to follow them in a looping line to a small, wooded area where there's a lot of fox prints around a mound with a small hole. Investigating carefully to avoid destroying any clues, you also find some rabbit tracks leading to the same mound. You don't see signs of a struggle—rabbit fur, for example, or a widening of the tracks that would indicate running—and the tracks lead off and down toward the road. Maybe the fox came to see if there was a chance of a rabbit breakfast and, deciding that wasn't going to work out today, continued on its rounds.

Tracks

It is relatively easy to find animal tracks if you look for them. Soft earth, mud, sand, and snow all do a relatively good job of preserving the tracks of those that have passed over these surfaces. Locating a track is only the first step, however. Learning to identify what animal made these tracks, and possibly some characteristics about that animal, is where tracking can become quite interesting.



SCOTT MOORE

The tracks of birds vary a lot, but it is pretty easy to determine basic characteristics of the bird that made them by noticing the types of tracks they leave. Pairs of footprints that are usually adjacent may indicate a songbird that spends much of its time in the trees and usually hops when on the ground. Bird tracks with an alternating gait and/or a pronounced rear toe (hallux track) may indicate a bird that spends a lot of time foraging on the ground, such as a wild turkey. The evidence of webbing between the front toes indicates an aquatic bird, such as a duck, goose, or gull.

Another important characteristic to look for in some mammals is the number of toes. Many mammals, such as dogs, cats, foxes, wolves, coyotes, and some rodents, have a vestigial toe known as a dewclaw which does not touch the ground when they walk. Animals with dew claws leave footprints that only show four toes per foot. There are many other mammals, including raccoons, squirrels, groundhogs or woodchucks, skunks, bears, opossums, beavers, muskrats, minks, and otters, that do impact all five toes per foot on the ground when they walk.

When tracking animals, take a moment to notice the space between adjacent steps. These can indicate if the animal was walking, trotting/jogging, or running.

Alternating Tracks



Deer, Moose



Coyote, Dog, Fox



Cat (Domestic and Wild)



Turkey



Duck, Goose, Gull



(Front)



(Hind)

Raccoon



(Front)



(Hind)

Skunk



(Front)



(Hind)

Bear

Parallel Tracks



Robin, Sparrow



Otter



Mink

Combination Tracks



(Front)



(Hind)

Rabbit



(Front)



(Hind)

Gray Squirrel

Common Tracks (not to scale)

A large number of prints overlapping in a small area may mean the animal stood in one place for a while and just occasionally repositioned its stance. Sometimes, you may even find an unusual interruption in a track pattern if an animal decides to bed down to rest, which will leave a large depression and possibly some hair along the track. Sometimes you'll notice signs that a bird took a dust bath which is how they rid themselves of parasites by sweeping up dry, dusty earth with their wings, frequently leaving a cleared area of dirt and a few feathers behind.

On the opposite page are a few of the more common animal tracks you'll find throughout the United States. Note that several types of animals share very similar tracks, such as dogs, coyotes, and foxes. The relative size of the track, in some cases, can help to eliminate some possibilities from consideration.

Biological Materials

Although footprints and areas of worn or missing vegetation are the most common trail components, remains of other biological materials are also helpful in determining the presence or movement of animals through an area. Fur and feathers may be shed by mammals and birds for a variety of reasons. The loss of fur or feathers can be due to seasonal changes; accidents such as scraping off a tuft of fur along a fence; or injury, such as a predatory attack.

By learning the different colors, patterns, and anatomy of common animals in your area, you'll become skillful enough as a tracker to identify where on the animal's body specific hairs or feathers may have come from—which will also help you figure out why they were left behind.

Animal feces, also known as *dung* or *scat*, can vary greatly from creature to creature. If you can learn to identify common types by their appearance, it can also give you a good idea of the general animal population within an area. Many mammal herbivores, such as deer and rabbits, produce numerous dark pellets, while most birds produce a lighter grey or white substance that is a combination of urine and feces. Larger predatory birds such as owls commonly produce a greyish mass that may contain the undigested fur and bones of prey animals.

Learning to identify the shape and appearance of various animal scats can be just as useful as knowing tracks when it comes to identifying a species. Numerous occurrences in one specific area could indicate the movement of a group in the area, or if the area is frequented by a more solitary animal. You can learn a lot about the specific type of animal identified and its behaviors for that time of year.

Many hunters learn to read blood trails as well. Blood trails can sometimes be

found within a few feet of a footprint trail of a wounded animal. Occasional large drops of blood, the size of a dime, very close to the animal's tracks could mean that an animal is bleeding from a minor wound, with the blood trail created as individual drops of blood drip from that wound. This sign does not mean the animal is likely to die or is even gravely injured—and the blood trail may disappear after a short distance once the bleeding stops.

On the other hand, many small, barely noticeable pinhead-sized spots of blood appearing several feet away from the prints may indicate bleeding from a severe wound, as these pinpoint spots of blood might be the results of a spray of blood continually coming off the animal. In situations like this, the animal may very well expire a short distance from its blood trail. When tracking an injured animal, the blood trail may be easier to follow than actual footprints, as it may be consistent even when the footprints of a running animal become fewer and further apart.

Other Trails and Signs

Just as there are many different types of tracks and spoor, there are many different types of trails, too. Although a single set of distinct footprints provide an easily identifiable trail to follow, other types of trails leave signs that can give you some insight into the behaviors of those who created and/or travelled along them.

For example, in grasslands, open fields or the herb layer of a forest, there may be too much plant cover to easily distinguish footprints. In such cases, areas where the plant growth seems to be bent or matted down could indicate a path left behind by an earlier traveler. Similarly, a trail of hardened earth that is free of plants in an otherwise plant-rich environment may indicate a regularly used path.

Some animals that live in communities—such as flocks of wild turkeys—spend a good portion of the year foraging for food together. While it would be difficult to track an individual turkey amongst a flock, turkeys will scratch up the ground as they move through an area, pulling up grass and creating small piles of leaves as they clear the ground in search of edible roots and insects. Learning to identify these scratchings allows a tracker to follow the movements of an entire flock.

In contrast to flock movement, male whitetail deer, known as bucks, spend much of the fall traveling alone in search of a mate. During this time, they will create *scrapes*. These are bare spots on the forest floor that are 4–5 feet in diameter that are cleared right down to the earth to deposit their scent for other deer to find, typically along easily noticeable trails. This is often done in a spot where a low branch overhangs the trail so that the deer can also deposit scents from glands located on their head onto the branch.

It's a long tradition for new scouts to begin learning tracking by playing games where they track their scoutmaster or members of their patrol. Other games, like capture the flag, can be more fun if you can figure out where your opponents are moving. Tracking people sometimes involves finding not only footprints, but also vehicle tracks. *Vehicles* can be anything from cars and trucks to bikes, roller blades, and skateboards, and may leave only a single track. A bicycle may leave only one wheel track as it imprints the back wheel over the front. Several bikes can even follow on top of the same set of tracks. Four- and six-wheeled vehicles may only leave two tracks: one for the left wheels and one for the right wheels. While three-wheeled vehicles typically leave three tracks since none of the wheels travel over the tracks created by the others.

Vehicle Tracking Tip



Finding an identifying feature like an uneven tread or defect in the surface of a wheel may allow a tracker to determine the diameter of the wheels that created the tracks by dividing the distance between the appearance of a repeated characteristic in the print—effectively, the circumference of the wheel—by pi (3.141592653589793238...).

Becoming a Tracker

Learning to be a tracker requires that you not only know how to follow a trail but know how to do it undetected. For this you must learn stealth. You need to learn how to blend in, be silent and observe far more than you would on a normal walk. This will allow you to observe wildlife unseen and get to see animals engaging in behaviors that most people never experience. You can use these skills for wildlife observation, photography, hunting, or scouting games.

Stealth

Stealth can be defined as the skill of remaining unnoticed. Using stealth can allow you to move into an advantageous position or perform some action you couldn't accomplish if you were being observed. Mastering stealth not only makes you a better observer and tracker by teaching you how to move closer to your targets, but it can also teach you what to look for when stealth is being actively used against you as well.

There are many different elements to stealth; each one relates to somehow decreasing the ability to be detected by one of your target's senses.

Becoming Invisible

Probably the first aspect of stealth that most people think of is the ability to remain unseen. Being un-seeable means more than just wearing camouflage clothing in a forest. To become truly invisible, you must not only manage your color, but your shape or outline, and your movements as well.

Color is probably the easiest component to address. For proper camouflage, your clothes should match the color spectrum of the environment you'll be active in. A mixture of greens with some browns and greys, for example, might be fine for springtime in a hardwood forest, but the green will strikingly stand out in that same forest come mid-to-late fall, when the browns and greys alone would be just fine. Due to the amount of shadow generated in a forest, darker shades usually are better than brighter ones.

For dry, grassy, open fields in late summer or early fall, lighter colors—such as pale yellows or light browns—may better enable you to hide among tall grasses. If you get a chance to scout out the area you'll be working in ahead of time, take notice of the range of colors you see and plan your camouflage around that. It's also a good idea to note important landmarks that can help you stay oriented.

Keep in mind that different animals see different ranges of the color spectrum as well. Fluorescent blaze orange, for example, is worn by many deer hunters for safety reasons. To other humans and some animals, blaze orange is strikingly visible even in low light and from long distances. But deer only have two of the three types of cones in their eyes that humans have, so they can't see shades of red and orange. Instead, they see them as shades of brown or grey. Turkeys, in contrast, can see all the colors and will steer clear of anything in blaze orange even when that individual or object would be unnoticeable to a deer.

Masking Your Outline

There are many different types of camouflage patterns, and you may have wondered why many of them include individual representations of sticks or leaves as part of the pattern. If someone is close enough to make out the individual sticks or leaves in the pattern on your jacket, you might think they are probably close enough to see you. The sticks and leaves are not there to make you look like part of a tree; they are there to mask your outline.

Even when you are dressed in colors that completely match your surroundings, the shadows and highlights around your body make you easier to see. Incorpo-

rating the appearance of depth with shadows and highlights around the pattern of sticks and leaves on camouflage clothing creates the illusion that you are looking at several layers of foliage. This takes away attention from the fact that you are looking at a single surface.

In addition to the patterns on camouflage clothing, you can also hide your outline by constructing a blind of downed branches and leaves to serve as a wall between you and the target area you are observing. Think of the duck blinds you may have seen at parks with large bodies of water; if the animals cannot see the shape of a human, they tend to be less nervous and easier to observe. Other ways to break up your outline are to pin artificial branches and leaves onto your clothing, or to wear a *ghillie suit*. Ghillie suits are a type of camouflage clothing covered in loose strips of cloth that serve to break up the outline of the person wearing it. This disruptive patterning serves to not only hide the wearer by matching the color spectrum of the environment they are used in, but by breaking up their outline as well. In other words, ghillie suits address two of the three points we've mentioned for becoming invisible.

It is worth noting here that for best results, your camouflage should be complete. Wearing a camouflage jacket with a pair of blue jeans and nothing hiding your face will likely not gain you much of an advantage. Care should be taken to make sure hands, neck, face, and head are all covered appropriately. There are several good hunting masks available, made of a wide-woven material and resembling a veil, which will hide your facial features as well as prevent annoying insects from landing on and biting you in warmer climates. Also, be aware of sleeves or pant legs that may pull up when sitting down or in a resting position; they may reveal socks or under layers of clothes that, if not in an appropriate camouflage color, could also give away your location. Don't let your white socks be the reason you lose at your troop game of hide and go seek!

Becoming Silent

Among novice observers, it frequently is not the inability to remain unseen that catches them out, but the inability to remain silent. In the open, whether in field or forest, voices and other sounds can travel a surprising distance. The inadvertent cough or the crunch of a footstep can ruin what would otherwise have been an extremely stealthy attempt at hiding. Sometimes, even the inability to control your own breathing, as might happen if you're out of breath after climbing a steep hill, is enough to create a distinct sound that can travel for many yards.

Quietness Tips

The best way to move as quietly as possible is to pay close attention to three factors: your *movement*, your *surroundings*, and your *voice*.



Most people, when they aren't specifically trying to be quiet, are fairly noisy when they walk. On different types of surfaces, you'll find that different types of steps—how far you lift your foot between steps, whether you land on your toes first, your heel-first, or on your whole foot—result in different sounds. This means that with some practice, you can figure out the quietest way to step across any surface or terrain. The second trick, then, becomes to be aware of your surroundings and how the area you are stepping into can change. Although it sounds simple, this is sometimes a difficult skill for many beginning observers to master.

When walking through an area attempting to cover ground quickly, many observers spend too much time looking far ahead or off to their sides. Their goal, typically, is to observe some person or animal a distance away, so it seems only natural to be scanning the horizon while moving. However, this means that the observer can easily forget to occasionally check the immediate area they are moving through and end up giving away their location with the unexpectedly loud snap of a stick, the crunch of ice or dried leaves, or the splorch of an unexpected, boot-swallowing mud puddle. A quick glance at the ground in your direction of travel every three or four steps allows you to navigate around such noisy obstacles while still giving you plenty of time to scan the area further away.



Sound Control

What about sneezing? Or coughs or hiccups? Even the occurrence of these uncontrollable noises can sometimes be reduced with some planning. Antihistamines decrease the possibility of sneeze reactions—if they are produced by allergies. Throat lozenges or sucking on a piece of hard candy helps reduce coughing and emptying a packet of sugar on your tongue can help stop hiccups. Once again, it's all about being prepared.

When traveling with other people, it's natural to want to talk with them as you move along—but the human voice can carry quite a distance outdoors and will give away your presence to other people and creatures that are even beyond the range of your sight. Use hand gestures or trail signs to communicate with others. If you must speak, whisper into someone's ear, not from several feet away. If someone can hear you from more than a foot away, you aren't whispering.

Occasionally, it may also be possible to mask an unwanted noise by making other sounds. For example, if you're sitting behind a blind hoping to photograph some birds, you might decide to cover any noise made by the occasional shift in position by utilizing a bird call or other natural sound when doing so. The disadvantage to this method, if used too frequently or for too long, is that it might draw unwanted attention to your position. There have been cases of coyotes and foxes closing in on a hidden person's position because the animal assumed the person was a bird

from the sounds they were making.

Finally, keep in mind that many animals and people may make certain sounds when startled, for example the blow of a deer, the alarm putt of a wild turkey, or the flushing of a grouse. These sounds can serve as alerts other creatures that something isn't quite right. When trying to be silent, you need to be aware not only of your actions, but what others might be doing could give you away as well.

Becoming Undetectable

Once you have sufficiently practiced becoming invisible and silent, you'll have developed solid skills that will serve you well when observing and tracking. In a full discussion on stealth, however, it would be remiss to ignore how other senses may play into your ability to remain undetectable as well.

The senses of smell and taste are closely tied together and some animals, people included, are more sensitive to these than others. To mask one's scent, the most important factor is to eliminate perfume, cologne, and strong food smells. These scents can travel a far distance with even the slightest breeze to reveal your presence nearby. There also are fragrance-free detergents that can be used to wash clothing in before going afield, as well as natural scent-masking substances that reduce the human scent when searching for animals.

Many of these scent-masking substances, however, may be attractant or repellent to certain animals, such as those based on the smells of certain predators or herbivores, so using them requires some forethought. Also keep in mind that if you discovered you are standing in a field of wild leeks from the smell, other creatures in the area may be aware of you having stood in that field for a while as well, as the scent follows you. Remember that even conditions such as a mild breeze can substantially affect the direction and distance scents can travel, which could easily work against a potential observer if they do not account for it.

Even accounting for everything mentioned above, the classic distractions of walking into a spider web, having a swarm of insects buzzing your face and ears and occasionally landing on you, or being stuck in the same position for so long it becomes uncomfortable can all make you want to react quickly by moving—which will likely give you away. In most situations, none of the previous annoyances are anything life-threatening, so taking an extra few seconds to be aware of your surroundings and limiting your motion during your response, or perhaps even training yourself to bear it without flinching, may help you maintain your stealth.



Play a Game

A good way to practice both stealth and observation is an old game, adapted here from *Scouting for Boys*. An umpire places themselves out in the open and sends each scout or pair of scouts away in different directions. When the umpire waves a flag, which is the signal to begin, the scouts all hide and then proceed to stalk the umpire, creeping up and watching everything the umpire does. When the umpire waves the flag again, they rise, come in, and report each in turn all that he did, either by handing in a written report or verbally as may be ordered. The umpire meantime has kept a lookout in each direction, and, every time they see a scout, they take two points off that scout's score. During play, the umpire performs small actions, such as sitting down, kneeling up, and looking through glasses, using handkerchief, taking hat off for a bit, walking round in a circle a few times, to give scouts something to note and report. Scouts are given three points for each act reported correctly. It saves time if the umpire makes out a scoring card beforehand, giving the name of each scout, and a number of columns showing each act of his and what mark that scout wins, also a column of deducted marks for exposing themselves.

Weather, Seasonal, and Environmental Effects

The guidelines above are intended as an introduction to the considerations necessary for any successful observer or tracker. We must always be prepared, however, to adjust accordingly for the specific elements of the environment around us.

Be sure to learn the current and expected weather conditions in your observing or tracking area. Precipitation such as rain, snow, and hail can quickly obscure or bury tracks and other signs. On the other hand, the sound of the falling rain and the moisture absorbed into the ground could enable you to move more quietly through certain areas. Severe weather, such as during a storm warning, makes finding adequate shelter a priority and could call for a pause in your tracking efforts until any potential threat has passed. And a moderate wind in a forested or grassy area can— in addition to its effect on the dispersion of scents— assist one attempting to move stealthily. When a strong breeze causes the swaying or grass or leafed-out tree branches, it's easier to mask the subtle movements of an individual trying to remain hidden.

Different seasons often require an adjustment in certain practices. As mentioned above, green based camouflage may work fine in a hardwood forest during spring or summer months, but oranges and browns usually work better in the fall or late summer grasslands. And depending on the amount of snowfall, whites and greys often serve as better camouflage in winter months. An area that is easy to cross quietly in summer may become crunchy and noisy due to autumn leaves

or wet and sloppy during a wet spring. And since some species exhibit different behaviors during certain parts of the year, you might find it easier to track or view certain animals during one season or another. If the animals you want to track are migrating or hibernating, be sure you are looking for them when they are still around to be found!

Finally, be aware of the environment around you and what elements could serve either to assist you or to put your stealth at risk. Standing on top of a mountain may give you a better view into a valley, for example, but it also means that everything in the valley can now see your outline, due to the sunrise coming up behind you. Always step cautiously and quietly when coming up to any crossroads in a trail you are following or when entering a field from a forest, so you can see if there is anything down either side of the cross trail or out in the field before you step into it and get spotted first.

Scout's Pace

The Scout's Pace is simple concept: alternating short distances of walking and running. This movement will help you go faster—by adding running—and farther—by not exhausting yourself. This can come in very handy when a hike is taking longer than expected and it's time to get off the trail.

Usually, the walking and running portions are an equal number of steps, but you'll find your own Scout's Pace by paying attention: by the end of walking, you should feel like you could run a little; by the end of running, you should feel like you could keep walking. Practicing your Scout's Pace can help you build your endurance and self-regulation. Try timing yourself for a pre-measured mile or half-mile at both your regular walking pace and at a comfortable Scout's Pace—how much does your speed improve? Traditionally, the scout's goal was to make a mile in exactly 12 minutes.



4



End of Chapter Reflection Questions

- Why do scouts follow the Seven “Leave No Trace” Principles? What’s one thing you might change to do a better job of spending time outdoors without a trace?
- What do you think it means to be considerate to other visitors in the outdoors?
- What do you think is the relationship between stealth and observation?
- What would you be excited to try if you could move through the outdoors unobserved?



4

KNOTS AND LASHINGS

Knots have been part of scouting since the very beginning. When Baden-Powell held his first exploratory camp on Brownsea Island in 1907, knots were part of the program. And when he finally wrote his ideas down in the first scout handbook, he had a whole chapter on knots.

But what are they really good for? How will learning these knots help you in your adventures?

Picture yourself hanging by one hand off a cliff face, tying a clove hitch knot with your other hand without looking as you prepare to summit a mountaintop. You'll be glad you know it!

So, it's pretty unlikely you're actually going to be in that situation. But there will be many times you'll use these knots, from the mundane to exciting. Hopefully, you'll never need to use a bowline knot to quickly construct a lifeline for a drowning friend. You are likely, however, to use a bowline in camp to suspend your food out of the reach of scavengers. Less dramatic, certainly, but also important.

As you learn these knots, try to imagine scenarios in camp or on adventures where you'll use them. Don't just think about the position of the rope, the steps themselves, but think of the *point* behind it. Who might have created this knot, and for what purpose? Why are you learning this one? What's it for? These are good, valid, and difficult questions. Vacant memorization is no good—it's far better to understand why you're attempting to learn something.

Rope work is of paramount importance in fields as diverse as construction, seafaring, exploration, rescue, healthcare, sports, theater, art, and helping people move. In fact, you could say that the practical application of skills is the scout method summarized.

Types of Rope



In times past the most common type of rope was a **three-strand or four-strand twisted natural fiber rope** made from hemp, coir, jute, sisal, vine, flax, grass, leather, animal hair, or cotton. The first ropes used by humans date back 50,000 years to Neanderthal sites in Europe. This type of rope is easily made and would be a fun project for your patrol. The ancient Egyptians created the first devices for mass-producing rope. This twisted type of rope has limited strength and in order to be strong enough to support human weight or “real” load must be quite large in diameter and very heavy. Depending on the type of fiber used, the rope can become more flexible and stretchy when it becomes wet, or it might even fail altogether. The plus side of these natural ropes is that they are biodegradable and can be used as fire starters when their useful life is over.



Braided ropes have overtaken natural fiber ropes as the technology to make them has increased. These are made from nylon, polyester, polypropylene, polyethylene, or aramid. Each has certain advantages over the others, but all are made from non-renewable resources—taken from deep within the ground. These require lots of electricity to create, and at the end of their useful life they are not recyclable. That means that these fibers will outlive us and outlive our grandchildren’s grandchildren. When these ropes burn, they create dioxin, one of the most carcinogenic and toxic substances known to science.



Synthetic ropes are stronger, lighter, have better abrasion resistance, and can be more flexible depending on temperature and wetness. They are also stretchier under load, which is not always a desirable quality. Synthetic rope like paracord is *kernmantle*, a mixture of braided and twisted. It has a core that is twisted, and the outer part is braided. This results in a stronger rope. That is why paracord can hold up so much weight even though it is very thin.

Ultraviolet light from the sun has a negative effect on all ropes over time and will degrade ropes to the point of uselessness. This damage may not be obvious. So,

do not use any ropes that have been left outside for a long period of time.

Natural fiber ropes and synthetic ropes sometimes require separate techniques to ensure that the knots tied in them will hold. Knots rely on friction to stay tight, and each type of rope has different amounts of friction. One thing is constant, though: an improperly dressed knot is likely to fail.

Basic Knot Terminology



Bight: A curved section between two ends of rope

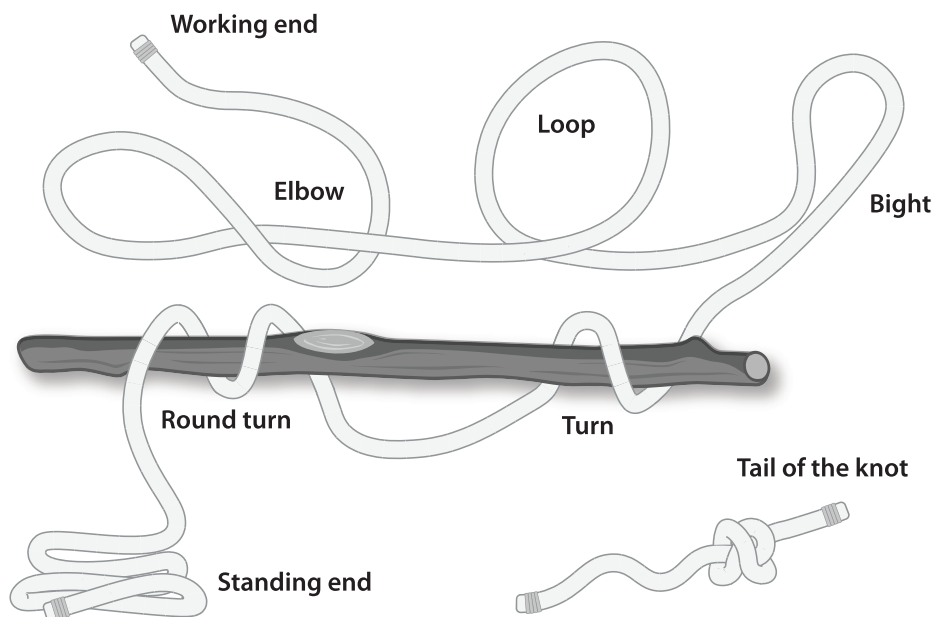
Loop: A bunny ear, like when you tie your shoes

Standing end: The part of the rope that's not active in knot tying—the opposite of the working end

Working end: The part of the rope you're manipulating

The knots scouts learn fall into six basic categories. Each type illustrates a different use for rope and different methods of attaching rope. We scouts start by learning six basic types of knots. These not only can be mastered quickly, but they will also lay the foundation to tie any knot for any situation.

1. A **bend** unites two ropes. Bend knots weaken the weight bearing capacity of any kind of rope.
2. A **bight** can be tied without access to the ends of a rope and doesn't weaken the rope.
3. A **hitch** can be used to tie a rope to an object.
4. A **shortening** knot is used to take up slack or shorten a rope without cutting it. When one makes a rope they will be a lot less likely to want to cut it.



5. A **stopper** knot is used behind another knot to make sure that the knot does not unravel.
6. A **decorative** knot is a knot whose sole function is beauty. It can be used to create useful objects.

As Pathfinders, you'll be expected to tie knots correctly, efficiently, and without hesitation. This means that you'll need to practice them under different circumstances. Tying knots with gloves on, in the dark and cold are common tasks for scouts practicing knots.

The knots presented here were chosen for their characteristics that are crucial in any knot work. Knots should be removed from a rope prior to it being stored. It is also good to reinforce knots with a stopper knot. The stopper knot should be tied as close to the primary knot as possible.

These five first knots are:

- Easy to tie
- Identified easily to confirm if tied correctly
- Once tied, they stay that way!
- Minimal effect on the ropes strength
- Easy/possible to untie

Caution: All knots, bends, and hitches that are used in rescue systems will have an adequate tail. The tail is the end of the rope that sticks out of the knot. In the drawings below, it has a wrap around it to show what it is. As a general rule of thumb for tail length after a knot is tightened and dressed; it should be approximately 4 inches, or 1 fist-width as a field measurement.

Tenderfoot Knots

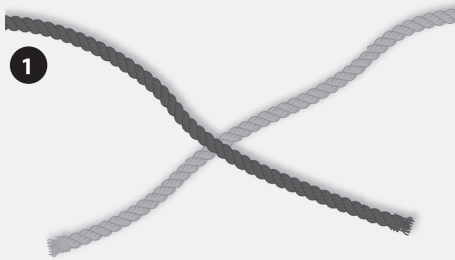
A Bend Knot: Connecting Two Ropes (or Ends of Ropes)

Square (Reef) Knot

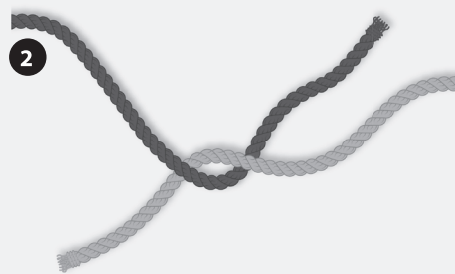
The square, or reef, knot is the simplest of the bend knots, mastered with a little practice. This knot is best for connecting two ends of the same line, to secure

it around an object. For example, you might use this knot in tying a bandage, package, or your shoelaces. You could also use this to connect two different ropes of the same thickness to each other. This knot should never be used for real load, although if a figure eight knot is tied on both working ends this knot will hold though you'll very likely be unable to untie it afterwards.

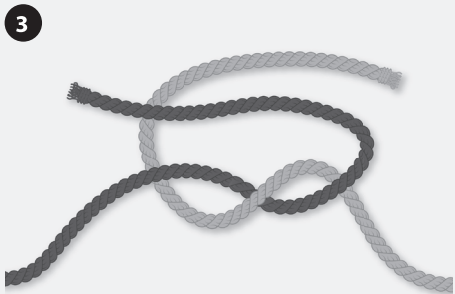
Tie a Square Knot



1 Lay two ends (or lines) with one over the other.



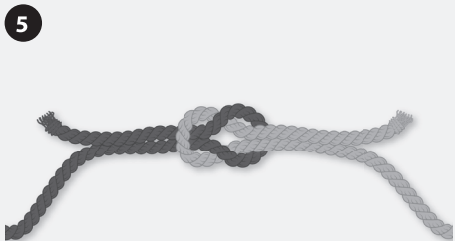
2 Cross the rope in front above and then behind the other rope.



3 Take the same working end and move it up and in front of the standing end of the other rope. Then cross it in front of the working end of the other rope.



4 Pass the working end of the other rope into the bight that is created.



5 Pull all four ends to pull the knot tight.

A way to remember this knot is to think “left over right, right over left.” Note that when it’s all tied, it looks like two interlocking bights. When you tie this knot so that it’s “left over right, left over right” you end up with a granny knot—which is much harder to untie.

Cautions: This knot has to have a safety half hitch on both ends if it is used for life safety. It will come untied if slack is applied.

Sheet Bend

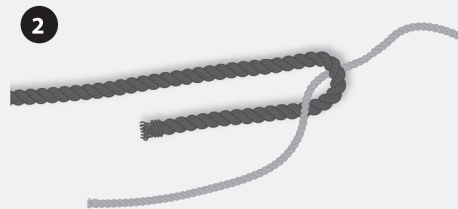
The sheet bend is commonly used for joining two lines of different diameters. This common sailing knot is used to tie the sails to the rigging. Sails are known as the sheets on sailing vessels, from which we also get the saying “knowing the ropes.”

The larger diameter rope will be the one with the bight and the smaller rope is the one that gets manipulated to form the knot. This is a great knot for rigging a temporary tarp or emergency shelter improvised from a tarpaulin or poncho.

Tie a Sheet Bend



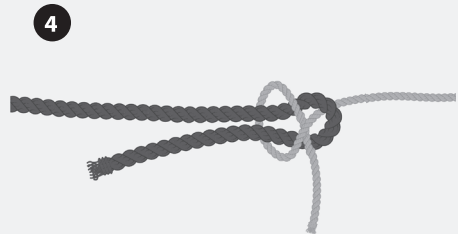
To tie the sheet bend, first put a bight in one line (ideally, the thicker of your two lines, if you have different thicknesses.)



With the working end of the smaller, or other, line, come up from the bottom through the bend of the bight in the thicker line.



Now take your smaller line around behind of the thicker line. Pass all the way under the bight and come up in front of the thicker line.



Put the smaller line under itself where it comes up from the bight but stay on top of the thicker line. Pull both of the ends of larger rope and the standing end of the thinner rope to tighten the knot.

This knot also works for tying a rope to your necker to create a longer rope when you don't have one at camp or as part of a game.



Did you know?

Tarpaulin is the full length version of the word **tarp**.

Knots to Secure a Line

Clove Hitch

The clove hitch is a quick, easy way to secure a line to a post, spar, or tree branch. It is used to start lashings, and it is secure with force exerted upon it but will come loose without. That means that this knot can slip. Keeping tension on the line when the knot is complete will help prevent this, as will keeping the wraps of the knot close together.

There are several ways to tie a clove hitch, depending on your situation. For example, you can tie it and then slip it over the top of a post. Or you can tie this knot directly to a tree branch (or ladder rung.) Learn as many ways as you can.

Tie a Clove Hitch: Method 1

When you can slide it over the end of a post or branch (or a scout staff)

1



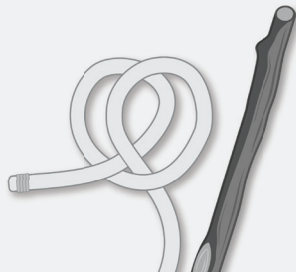
Make a loop, by crossing your line over itself.

2



Repeat, so you have two loops next to each other.

3



Put your second (right hand) loop on top of the first loop, so they are stacked.

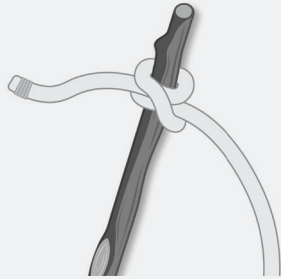
4



Slide it over the end of your post/staff/etc.

CONTINUED...

5

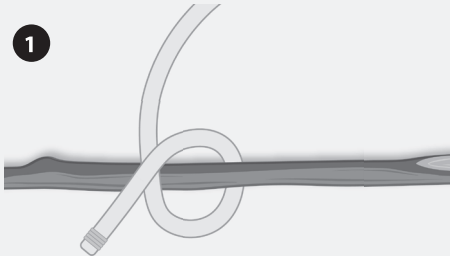


Pull it tight with both the standing and working ends.

Tie a Clove Hitch: Method 2

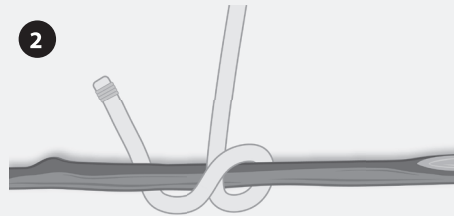
When you can't slide it over anything (e.g., tying to a ladder rung)

1



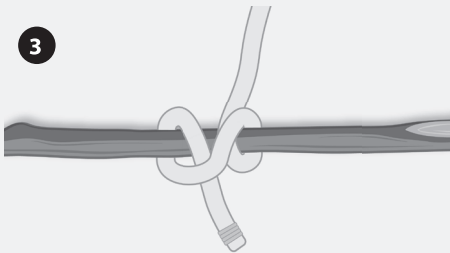
Pass the working end all the way around your object. When the working end comes to meet itself, cross over the top forming an X.

2



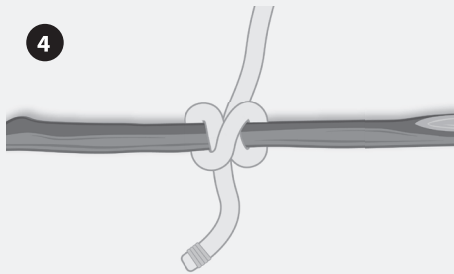
Go all the way around again. The working end will be next to the first wrap.

3



Tuck the working end under the X.

4



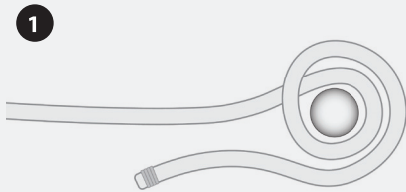
To tighten, pull the working end and the running end.

Round Turn and Two Half-Hitches

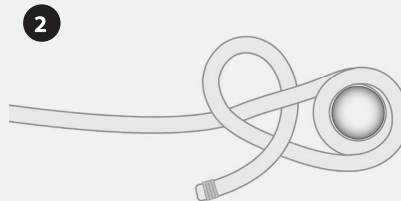
The round turn and two half-hitches knot is an excellent way to secure a line to a post or a ring, and you won't need to adjust the line. The name probably sounds like it describes the knot—and it does! You go completely around the object you're tying the knot to, so the rope passes itself. Then you secure the working end to

the standing end by tying a half-hitch twice. This is a good knot for securing a tow rope to a disabled automobile, for example.

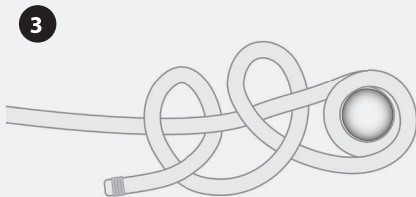
Tie a Round Turn and Two Half-Hitches



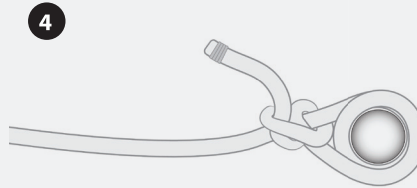
1 Pass the working end of the rope around your post or ring (or whatever) twice.



2 There's your round turn. With the working end, go OVER the standing line and under it, coming up between the working end and the post. That's one half-hitch.



3 Repeat this over- and- up- through (but this time between your working end and your first hitch.) That's your second half-hitch.



4 These two half-hitches keep the line in place, while the round turn takes most of the weight of the load.

This knot is great for tying off your tent stakes or to create an emergency shelter with a tarp.

Knot With A Fixed Loop

Bowline

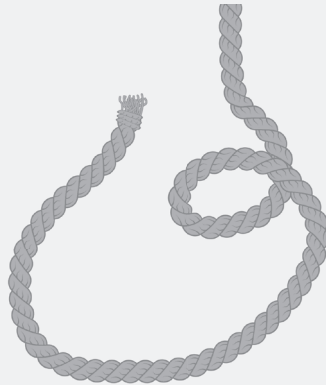
The bowline (pronounced *BOW-luhn*) is used to make a loop that cannot slip. If you only ever master one knot, make it this one. This knot is easy to untie even after it has been under heavy load, and it can be used to stake out a tarp or tent (there are other knots for this too, of course), or to make a loop around an object you need to pull (or hoist), or to moor a boat.

Every scout, before hiking anywhere with cliffs, steep drops, or danger of other kinds, should be able to tie this knot, ideally with one hand. Both the bowline and the alpine butterfly knot can be used to form a non-slipping loop to hoist a person safely.

This knot is used when one end of the rope is already attached to something, and you are tying a knot to the other end. The rope could be attached to any item. Learning this knot will make more sense if one end of your rope is actually attached to something. If you don't have something to attach it to, ask a friend to hold onto it for you.

Tie a Bowline

1



With the free end hanging down, make a loop with the part that goes to the working end on top of the attached end.

2



Take the working end and bring it up through the loop you created. See that new loop you are creating? That's going to be your fixed loop.

3



Go around the back of the standing line with the working end

4



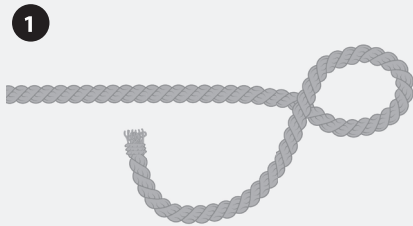
Then go back down through the first loop. Tighten the knot by pulling the attached end and both sides of the working end.

Stopper Knot

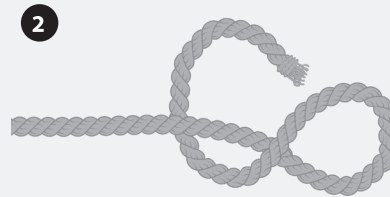
Figure 8 Knot

One of the first knots scouts learn is the figure 8 knot. It is the basis for a whole family of knots and a great stopper or securing knot that will absolutely not let go. You may have learned the figure 8 knot as a younger scout. It can be used to take up slack; it is easy to untie after being under a load; and you can double it up in some cases, like when rock climbing. This is a great knot to tie on the running end of a knot or to increase the holding power of any bend or hitch.

Tie a Figure 8 Knot



Take your working end and make a loop with the working on top.



Bring the working end around the back of the standing part.



Then feed the working end back through the loop you just made, from the bottom to the top.

If you leave plenty of extra line in the working end, you can put the working end through something (like a climbing harness), and then retrace the knot, doubling it up.

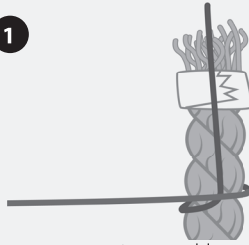
Whipping the End of a Rope

Natural fiber ropes may start to unravel or fray with use. So, in order to keep your rope reliable, you need to know how to *whip* the end of a rope. This does not mean snapping it like a lion tamer—it means finishing up the end of a rope so it doesn't fray or unravel further.

There's more than one way to whip the end of a rope (especially if you're into sailing). Here we teach you one way that is useful in most circumstances.

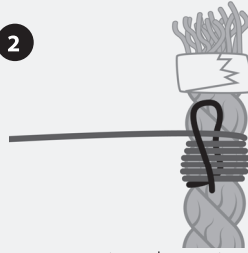
Whip the End of a Rope

1



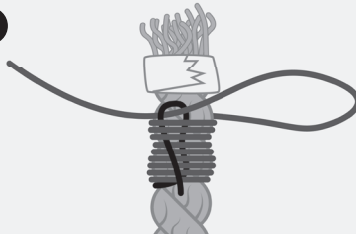
Use some twine and lay a bight of the twine on top of your rope end with the bight closest to the end of the rope.

2



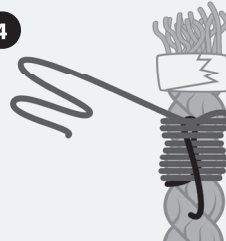
Start wrapping the twine around your rope, working your way towards the frayed end. After wrapping the rope several times, fold the twine down making a bight in the twine.

3



Continue wrapping the twine over the bight. Keep the wraps close together. When you've wrapped at least 1 ½ times the diameter of your rope, put end of the twine through the bight.

4



Now use the other end of the twine to pull that bight tight and pull the part where the twine goes through the bight into the wrapping, so it's hidden.

5



The ends can be trimmed, melted, or wrapped in duct tape.

It is best to whip the end of a rope with waxed thread, which doesn't rot or slip, and that's particularly important if you're using it while pioneering to make structures that are lashed together, since your rope will be out in the weather.

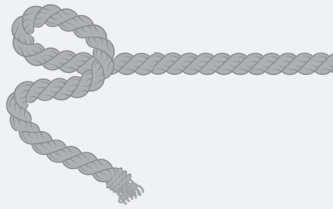
Other Useful Knots

Slip Knot

The slip knot is the beginning knot used in knitting and crochet, but it is useful in many scenarios, and chances are good that you've previously learned it. The slip knot can be untied quickly by pulling on one end, and it can be used as a stopper knot in some cases when using thicker ropes than yarn.

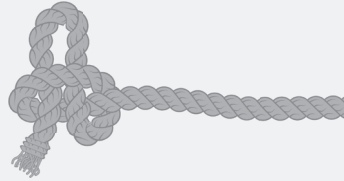
Tie a Slip Knot

1



Form a loop in your standing line.

2



With the working end, create a bight, and place it through the back of the loop. Tighten the loop.

To untie, pull on the tail (or working end) and it will come undone. This is the beginning of knitting or crocheting.

Sheep Shank

A sheep shank is a knot traditionally used to take up slack, and it works very well with traditional ropes when under load. It's not recommended with synthetic ropes because it easily slips with these smooth ropes.

Tie a Sheep Shank

1



Make two bights one with the running end going up, and the other with the working end going down. The slack you want to take up will be between the bights, so judge the length carefully.

2



Then make a loop on each end, and feed the bight you made through the loop.

3



Gently pull the loops tight around the bights.

Your rope is now shorter without being cut. For this knot to hold, it needs to be under tension.

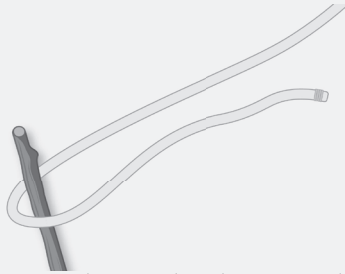
Second Class Knots and Lashings

Taut Line Hitch

A super useful knot, the taut line hitch can slide along a line to tighten or loosen it, and then holds fast and doesn't budge once it's under load. Want to tighten up the rain fly in your tent? Adjusting your hammock? The taut line hitch is the way to go.

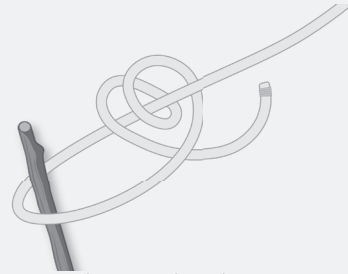
Tie a Taut Line Hitch

1



Take your working end and go around the thing you want to connect to (tent peg, rock, tree).

2



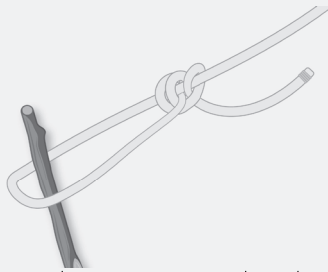
With your working end, coil twice around the standing line, working your way toward the object to which you are anchoring.

3



Make one more coil on the OUTSIDE of the two you just made away from the anchor and then tighten the coils up around the standing line.

4



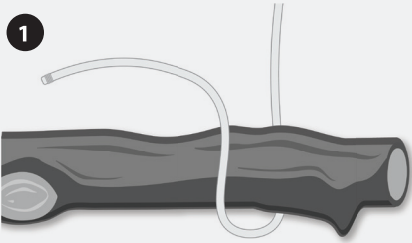
Slide it to where you want it, let it be under load where it won't slide, give it a pat, and walk away happy that your rain fly is keeping the rain OUT of your tent.

This knot becomes a rolling hitch when it is placed around an object like a log or pole instead of around the standing line of the rope

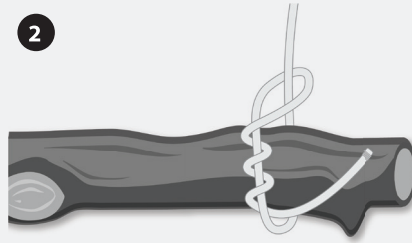
Timber Hitch

A timber hitch connects a rope around a cylindrical object like a piece of timber (huh, go figure), and is useful when you're going to tow a spar or log, either in the water or on land. It stays tied when it's under load, and then easily unties when the force is stopped or removed.

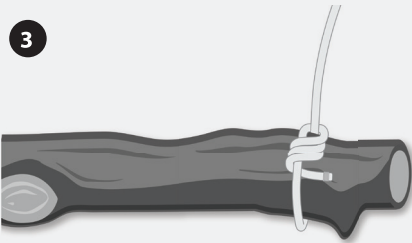
Tie a Timber Hitch



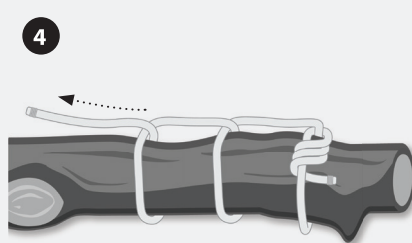
Pass the rope around the cylindrical object.



Then pass all the way around the standing end. Tuck the working end around itself at least three times.



And pull out the slack but not too tight.

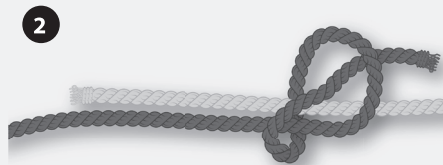
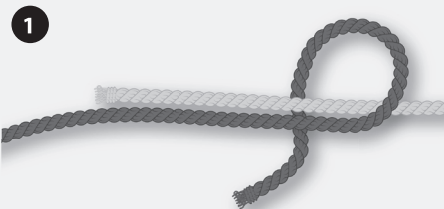


Add one or two half hitches near the hauling end so that the knot doesn't get twisted as you haul your object away.

Angler's Knot

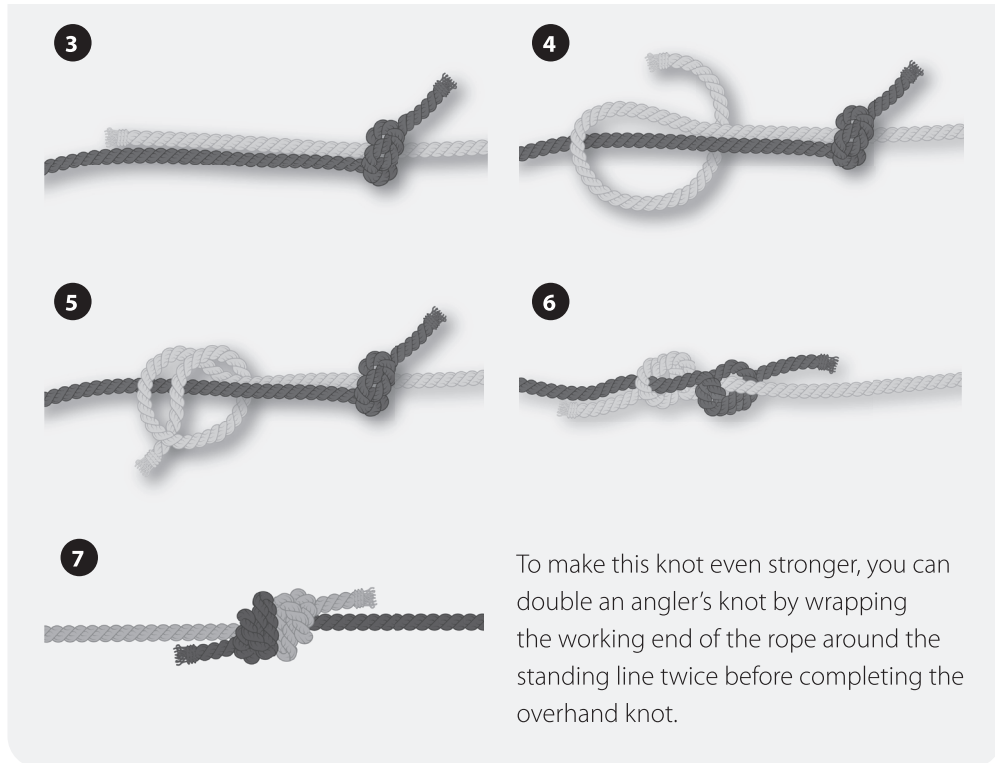
You're fishing and your gear is wet, and now you need to connect to wet or slippery lines. What knot do you use? If you guessed the angler's knot, you would be correct. It is also a good knot to connect two sheets to shimmy down the outside of a building.

Tie an Angler's Knot



Take the working end of each line and tie a loose overhand knot around the other line. Tighten each knot, and then pull them together.

CONTINUED ...

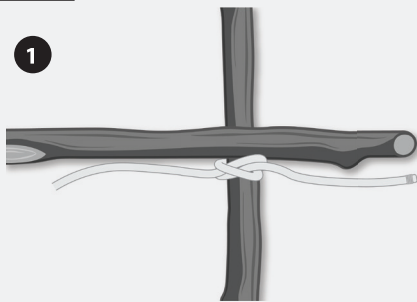


Second Class Lashings

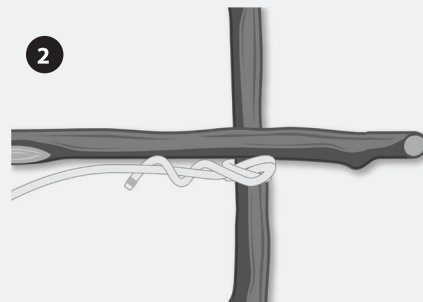
Square Lashing

You're building a shelter, and you need to connect two spars at right angles. Now is the time to use the square lashing.

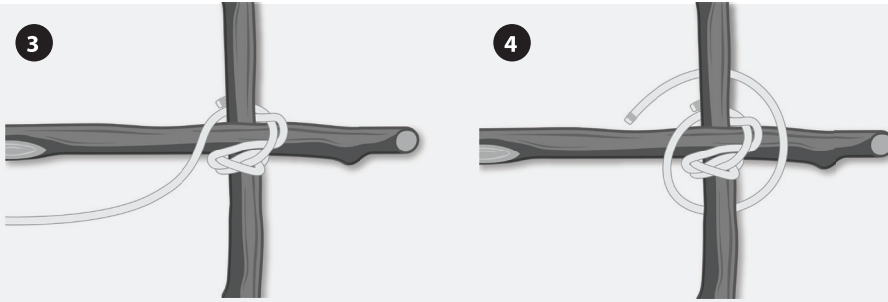
Connect Spars With Square Lashing



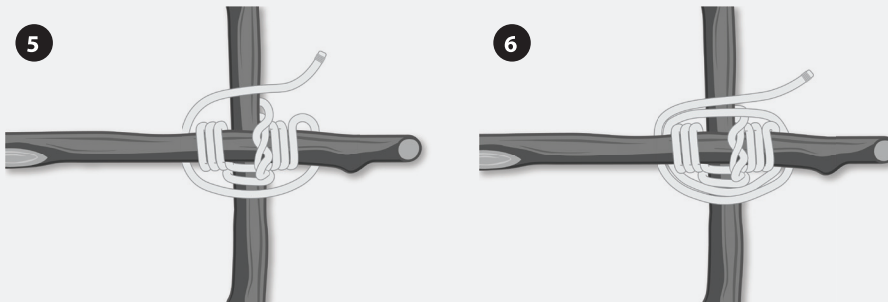
Start with a clove hitch (remember your Tenderfoot knots) around the upright spar.



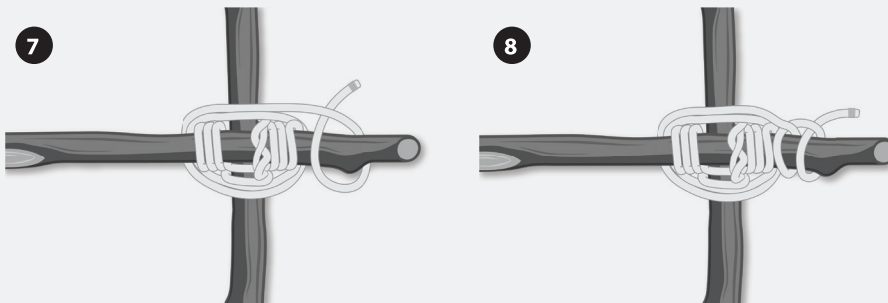
Wind the working end of the clove hitch around the other rope to ensure that the lashing will not come loose. *CONTINUED...*



Now lash the two spars together by wrapping around the front of the spar, around the back of the other spar, around the front of the other side of the first spar, and then around the back of the spar on the opposite side, ending up right back where you started. Repeat at least three times.



Then begin your frap. **Frapping** is a way to tighten the ropes so that the lashing won't move. It will bind your lashing tighter by weaving the rope in the opposite direction of your initial weaving. Over the first spar and under the second perpendicular to the first three wraps. These wraps will be around the ropes between the spars.



Go all the way around at least three times, keeping them nice and taut.

Finish with a clove hitch, on the most convenient spar to secure the end of the lashing.

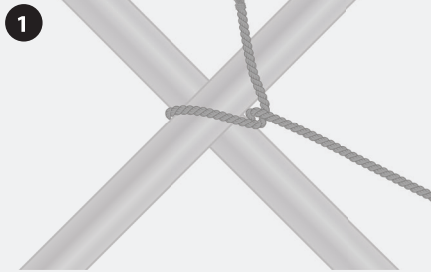
You can use square lashings and spars to build all kinds of neat things with your patrol. Experiment with making things that are fun or functional, like monkey bars or a table to eat dinner at during a camping trip.

Diagonal Lashing

When the spars that you're lashing need to resist diagonal forces you will need to

use the diagonal lashing. It is just a little trickier to do but will hold your spars well and add rigidity and shear strength to the structures you are building.

Connect Spars With Diagonal Lashing

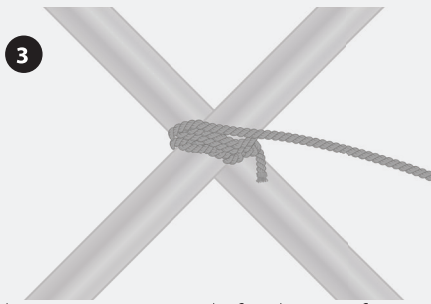


1

Start with a timber hitch around both spars.

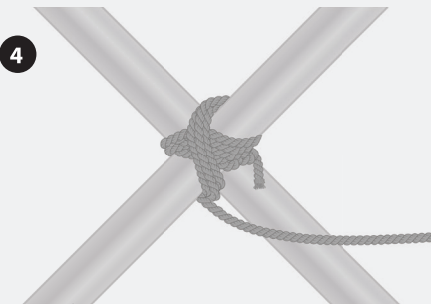


2



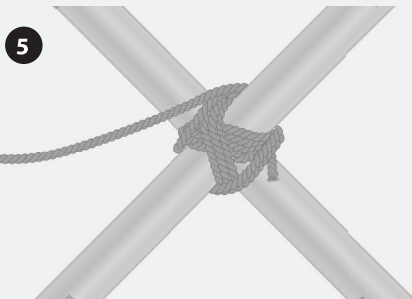
3

Then wrap at an angle for three or four times.



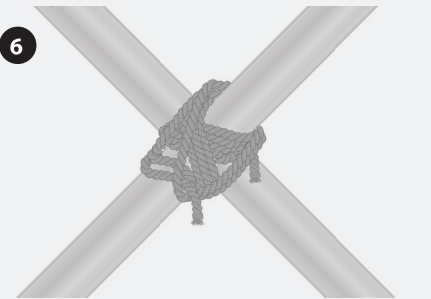
4

Wrap in the opposite direction for three or four turns.



5

Next begin your frap. Over the first spar and under the second perpendicular to the first three wraps. These wraps will be around the ropes between the spars. Tighten with each frap.



6

Make several half hitches around the most convenient spar to finish the lashing.

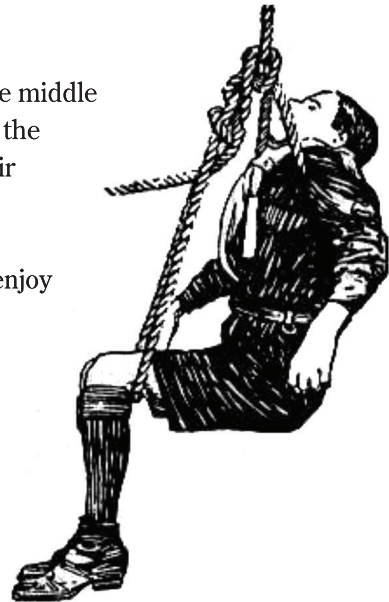
Diagonal lashings are great to use in towers. They make good strong triangles, which are great for building. See if you can figure out how to make a chair with this lashing and just 3 spars!

First Class Knots and Lashings

The Firefighter's Chair

The firefighter's chair is a hitch which can be made in the middle of a rope, and which provides two loops: one to go under the shoulders of an unconscious person, the other under their knees, so that they may be safely lowered from a height.

This advanced knot is beautiful, functional, and you will enjoy learning to tie it.



Tie a Firefighter's Chair



Start with two loops, like you would for the clove hitch (the one you slip over something), giving yourself plenty of line.



Overlap the loops.



Pull the inner sides outward, into two loops. When used as a rescue knot one loop should be the size of the person you want to rescue's torso and the other the size of their legs. And tighten. You have just made the **handcuff knot**.

CONTINUED...

5



6



Now make a half hitch over each loop but first adjust the size of your loops to be the desired sizes.

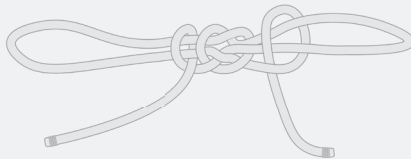
7



8



9



10



Alpine Butterfly

The alpine butterfly knot is useful when you need to create a strong loop in the middle of a line to attach a carabiner or another rope. One could tie this in order to isolate a damaged section of rope. It can also give a climber a useful handhold or foothold while summiting or descending using ropes.

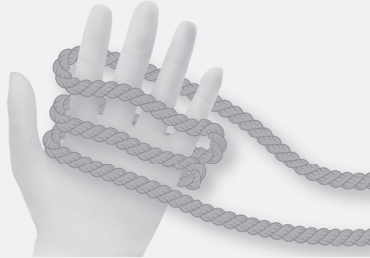
Tie an Alpine Butterfly

1



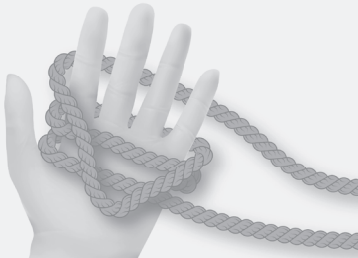
With one end of the rope anchored, hold your left hand in front of you with your palm facing you. Loop the rope over your palm, so it runs from near your thumb down towards your pinkie.

2



Come around the back of your hand and make a second loop, and then repeat again so that the rope is running across your palm three times.

3



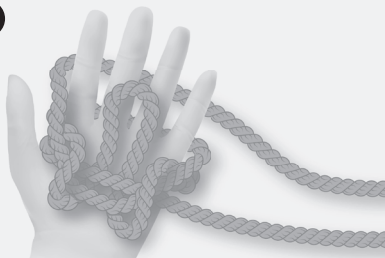
Grasp the section of line nearest your pinkie and pass it over the other two.

4



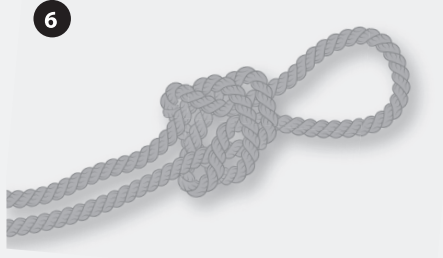
Now take the new part that is closest to your fingers, which was previously in the middle, and pass it over the other two sections, just like you did with the first one. It is now on the end closest to your wrist, and you should hang on to it!

5



Pull that bight that you're now holding under the other two loops towards your fingers and through the middle.

6



Pull it tight!

Unlike other knots, the alpine butterfly can withstand pressure from every direction—laterally and tangentially.

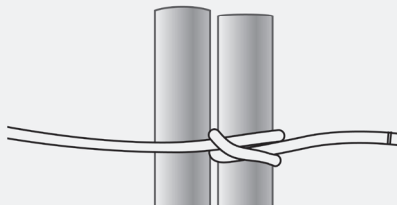
First Class Lashings

Shear Lashing

Shear lashings are used when the ends of the spars will be opened up, like scissors or an A-frame, or when you need to reinforce a weak or broken pole.

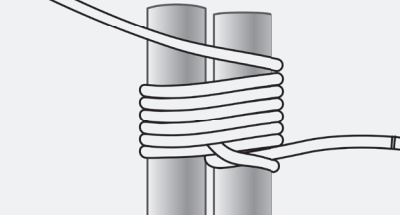
Connect Spars With Shear Lashing

1



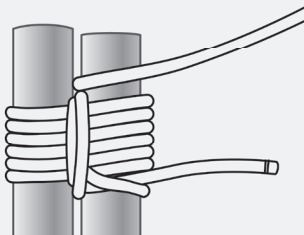
Tie a clove hitch around one spar.

2



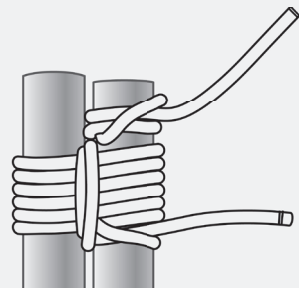
Then wrap the cord all the way around both spars several times.

3



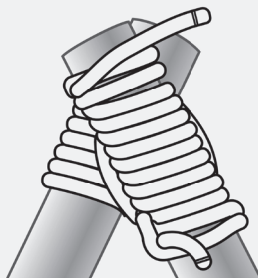
Pass the rope between the spars and make several frapping turns. A frap is a turn between spars, and tightens up the wraps.

4



Finish the lashing with another clove hitch.

5

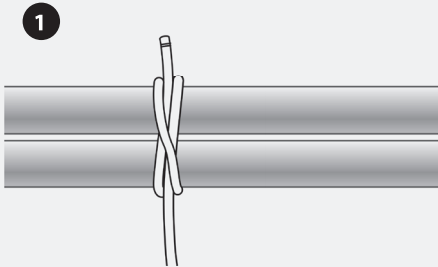


These 2 poles will now lean against each other without falling down and can be used to brace other spars to make a fence.

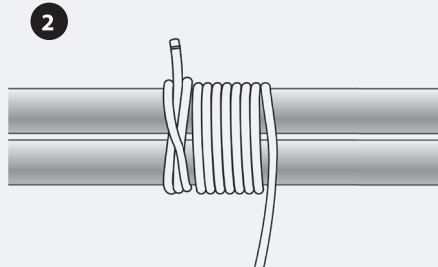
Round Lashing

Round lashing is used to tie two spars together, to make a longer pole. The objective is to make them a single, long spar. If you add some wedges between the poles, both above and below the lashing, it will be much tighter.

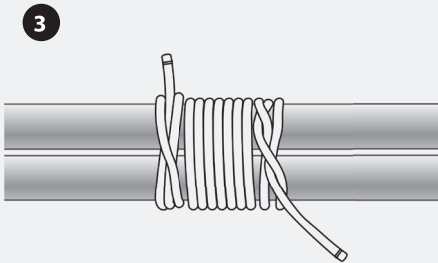
Connect Spars With Round Lashing



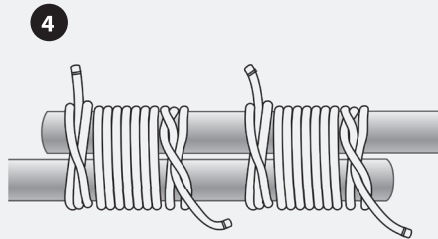
Start by tying a clove hitch around both poles.



Then wrap the rope around both poles tightly several times.



Finish with another clove hitch.



Tying multiple round lashings will increase the strength of your spars.

Lashing poles together is a great way to make a flagpole for your group camp.

Splicing

Back Splice

The back splice will keep the end of a fraying rope from fraying further. Note that a back splice makes the end of the rope bulky, which may prevent it from going through blocks or pulleys.

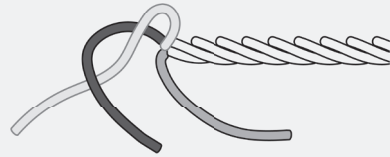
Make a Back Splice

1



Start by unraveling your rope 3 or so inches. These instructions are for a three-strand rope.

2



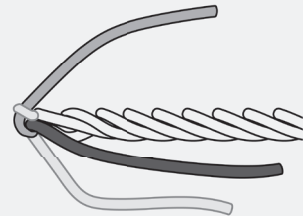
Place the unraveled rope so that one strand is at the back of the rope (compared to you), one strand goes off to the right, and, you guessed it, one goes to the left.

3



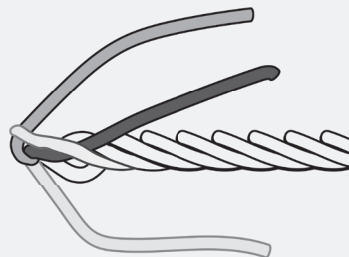
Bring the back-most forward and pin it in place with your thumb, making a loop at the top. Take the right-hand strand and put the tip through the loop, forming a new loop that sticks off to the right.

4



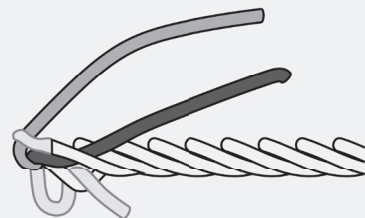
Now bring your left-hand strand around the front, crossing over the back-to-front loop strand, and go through the loop you created on the right. Then gently tighten all three until you have a knot at the end, with three tails.

5

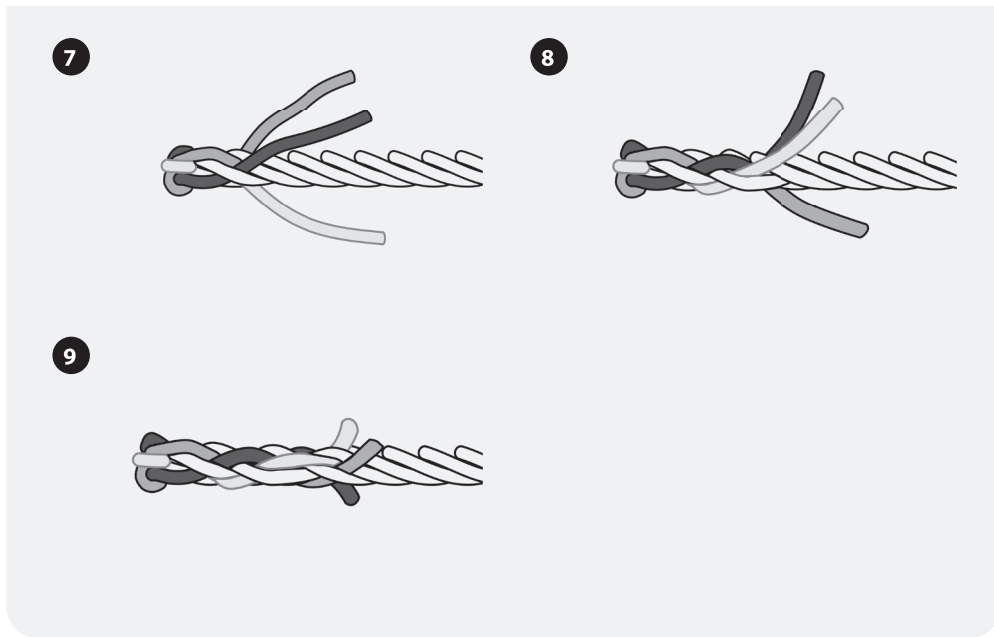


Now, untwist the rope a bit so that your tails can be woven into the end of the rope. Do this by going over the strand that is its immediate neighbor, and under the next strand, working your way towards the standing part of the rope.

6



CONTINUED ...



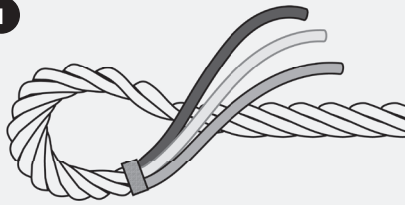
Your rope will now stop unraveling!

Eye Splice

Finally, the eye splice puts a permanent loop at the end of a rope, usually for attachment to a fixed point. To tie an eye splice, you'll want to use a piece of twine or tape around your rope, at the point where you want your rope to connect to itself, and then unravel the remaining of the working end so that you have individual strands. Identify how big you want your loop to be, hold it in place, and then open up the rope (essentially untwist from that point back towards the rest of the rope). Note where multi strand ropes twist over each other are called *tucks*. You want to have at least enough unraveled rope to go through five tucks which is roughly five times the diameter of the rope. So for a 1 inch rope you would need to unwind 5 inches or more to have enough tuck it. The more you tuck in, the stronger your eye splice will be.

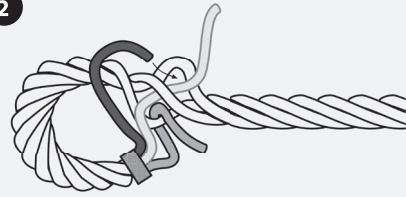
Make an Eye Splice

1



Unravel the amount of rope you need.

2



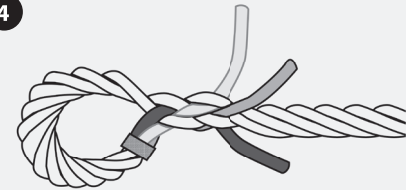
Put the center unraveled strand through the closest strand at the first tuck below the tape marker.

3



Then, put your left strand under the upper left strand in the standing end, and put your right strand under the lower right strand in the standing end.

4



Repeat this process for the next four or more tucks. Then remove your tape or twine.

5



You now have a loop at the end of your rope that will not come untied. This splice was often used by sailors.

Time to Practice!

Knot tying is a useful skill and can also be a true art form. The knots described here are just a few of the many knots you can learn. They should serve you well, in both your scouting life and the rest of your life. Now go forth and make as many puns that have to do with knots and rope as you can. And practice your knots! You're not alone.

End of Chapter Reflection Questions

- Why is learning knots so much fun?
- How can learning knots help us to be prepared or be more prepared?
- Which of these knots will you use the most?



5

THE GAME OF SCOUTING

We often talk about “playing the game of scouting.” Why do we say this? Most of all, because scouting is fun! Even better, games are great ways to learn.

Your patrol can and should play all kinds of games. Games help your patrol bond and work together more efficiently, allow them to learn and remember skills, and create the “team spirit” that will make your scouting better.

Types of Games

Simple Games

Games don’t have to be elaborate to be fun. For example, when your troop welcomes new members, you can use a game to introduce the new Pathfinders to the rest of the troop and ensure everyone remembers each other’s names.

Name Circle is a great game to break the ice. There are many variations. The simplest is to have the troop sit in a circle. The first Pathfinder starts by introducing themselves by their first name. The next Pathfinder in line repeats that name and adds their own. The third Pathfinder repeats the first two names and adds

their own, and so on in order until you reach the end. The last scout might have a lot of names to remember!

Another variation is to state your name and say something interesting about yourself, acting it out in a simple motion.

- “My name is Jamie and I love to read.” (*Mimes turning pages in a book*)
- “This is Jamie, and they like to read. My name is Nia, and I won a surfing competition last summer.” (*Mimes balancing on a surfboard*)
- “This is Jamie, and they like to read. This is Nia and they won a surfing competition last summer. My name is Rebecca and my dog weighs 180 pounds.” (*Mimes walking a horse-sized dog*)

If you forget a name, the person can mimic their action to help you remember. Play this game a couple times, and even new scouts will feel they know the group!

Skills Games

Games are also a good way to learn and practice your scout skills. Games can be collaborative—where you work together—or competitive, where you try to best another scout. Your group can vary between team games or one-on-one, so everyone has practice working together and in getting to know each other individually.

For example, imagine that your patrol is working on knots for the Tenderfoot tests. Perhaps some of your patrol members are learning these skills for the first time, while others are practicing and refining their skills. You can play a game where scouts identify the knots on a table and name the uses for each. The next meeting, have races to see who can tie knots the fastest. Finally, create a game where the competitors must use all six knots to hang a gallon jug of water from a tree with pieces of rope. Use several ropes of different materials and thickness into short pieces and give some to each team. Use the sheet bend to join two pieces of unequal thickness, the bowline to create your loop for hanging, and so on.

These games can take many different forms, depending on the composition of your troop. If you are a large troop with several patrols, you might compete against each other. If you only have one available patrol, you could compete in pairs or even individually. Also, scouts could compete against the clock, to see how fast you can complete all six knots. This game can also be done as a relay race. The exact format doesn't matter, only that you create a game suitably challenging and fun for your patrol members.

Collaborative Games

Some of the best games don't have any losers, and everyone can win. The knot game above can be adapted into a collaborative game, everyone in your patrol working together to help each other towards a common goal.

You can build patrol spirit many ways. Decide what your patrol needs and build a game around it.

Games to Try

Outdoor Games

Capture the Flag

The goal of Capture the Flag is to venture into your opponent's territory and steal their flag, then bring it back to your home base. It can be played in a big open field or a wooded area, and each type of playing field will require different skills.

The field is divided into thirds—each team has a side, with an equal-sized patch in the middle that is neutral territory. Each team creates a home base on either end of the playing area, and a jail for prisoners. Their patrol flag is prominently displayed at the home base, and teams may choose to guard it, or not—but if a team has enough players to have so many guards that the flag cannot realistically be stolen, the teams are probably too large. Players from the opposing team need to sneak into the home base, steal the flag, and bring the opposing team's flag to their home territory without being tagged.

Players move freely about their own team's territory and the neutral territory. But when they cross into their opponents' zone, they run the risk of capture. A tag from an opposing player behind enemy lines means you are captured and go to jail. Teammates can sneak across the border to rescue jailed players with a tag.

Teams can win one of three ways:

1. By capturing the opponents' flag and carrying it to their territory; or
2. By jailing all their opponents; or

3. If time runs out and neither team has been able to secure a victory, the winning team is the one who has captured the most prisoners.



Scout Meets Scout

This is another very old scouting game. Scouts can play as singles, in teams of pairs, or as an entire patrol, but it doesn't work well to play in more than two teams. In the original version of the game, the patrols are taken out into the woods a few miles apart and must work towards a single rendezvous point. This could be a landmark, a trail, or some other notable location.

The patrols must find their way to the rendezvous point without being spotted—the patrol which first sees the other wins.

Scouts may employ any ruse they like, such as climbing trees, hiding in carts, and so on, but they may not dress up in disguise. Upon first spotting the other patrol, the patrol leader must sound their whistle and hold their patrol flag high. A patrol doesn't always have to stay together, but your patrol will need to raise its flag to win, so if you are going to separate from your patrol leader it's a good idea to create some sort of code or signals to communicate. For example, you may agree on a series of bird whistles or animal calls to let each other know where you are.

You can play a variation of this game whenever your troop meets, or at a Pathfinder Moot; as you approach a campfire, flagpole or other assembly point, each patrol should try to move quietly and try to be the first to see the other.



Tug of War

A long rope helps but if you don't have one, your patrols can still play this game. Line up each patrol facing the other in one long straight line. Each scout removes their necker and holds it in their right hand. In their left, they grasp the other end of the necker of the scout in front of them. An extra necker joins the first two players on each team.

The two teams tug until one team has been pulled over the line, or somebody lets go and breaks the chain.



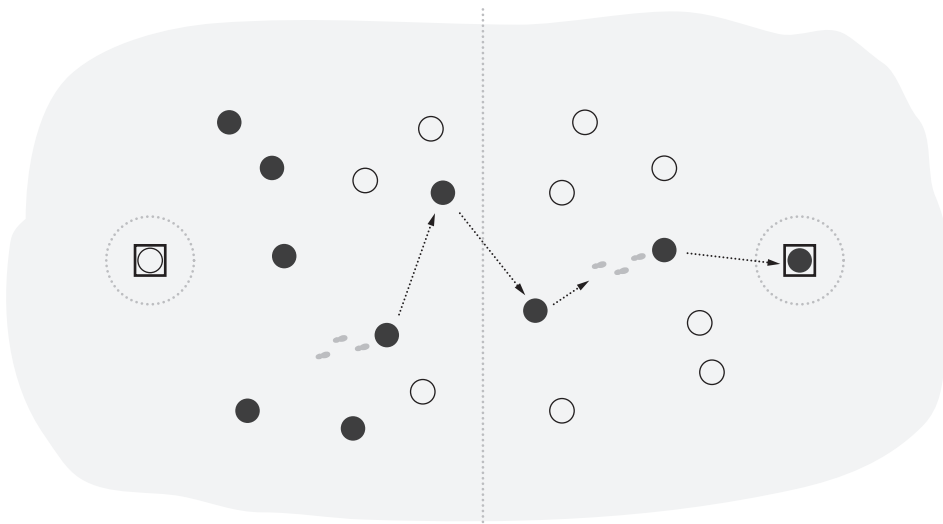
Captain's Ball

Captain's Ball is a team game similar to ultimate but played with a ball, usually a volleyball or softer ball of similar size instead of a flying disc. The goal of the game is to work with your teammates to move the ball down the field and get it into the hands of your goalkeeper, who is a teammate standing on a milk crate at the end of the field.

Use any method to choose teams; once teams are chosen, the two teams should decide which end of the field is assigned to which team and which team will receive the ball first. The teams gather at the ends of the field opposite their own goalkeepers, and nearest the opposing team's goalkeeper. The sending team throws the ball as far as they can down the field toward the receiving team, who retrieve the ball. No player from the sending team may touch the ball until it has been picked up by a player from the receiving team.

Once the ball has been picked up, play is continuous until one team or the other scores a goal. Any player who gains possession of the ball may take up to three steps but then must stop in place and is not allowed to move until they get rid of the ball. Therefore, the ball moves down the field using a series of passes. If someone takes more than three steps with the ball, they are required to move back to where they took possession. Flagrant or repeated violations may, at the discretion of the group, be addressed by awarding possession of the ball to the other team.

The team on defense can try and block throws, intercept passes, or grab the ball from the ground. However, players are not allowed to make intentional physical contact with other players, and "stripping" the ball—taking it out of the hands of



another player who has a firm grasp on the ball—is strictly forbidden.

To win a goal, the team with the ball passes it to their goalkeeper, who must take possession of the ball without falling from the milk crate. Once a goal is scored, the goalkeeper holds the ball for a moment, then tosses it to a nearby member of the opposing team. That toss may not be intercepted—play doesn't resume until the opposing team has possession.

There is a natural tendency for certain players to try and block throws to the opposing team's goalkeeper. However, there is a circle drawn around the goalkeeper's milk crate, in approximately a 3 foot radius with the milk crate at the center. Players in the field may pass through this circle but may not remain in the circle. While passing through the circle players may block or intercept throws.

Play continues until a predefined score, such as the first team to get to 10 goals.

Finer points include:

- **Changing goalkeepers:** Teams may change goalkeepers at any time during play, switching one out for a player in the field. Just after a goal, by either team, is a particularly good time to switch. This way everyone gets to be part of the fun, and goalkeepers can get some rest!
- **Handoffs and passing:** Handoffs of the ball are permitted but can be difficult. If you have the ball, it's a good idea to pass it quickly, if you are able, before the defenders can catch up.
- **Inclusivity:** Make extra effort to include all players, making sure everyone regularly gets a chance with the ball. When you do so, everyone ends up having more fun. This is especially important when playing with mixed ages, for example in an all-sections game that includes Otters, Timberwolves, Pathfinders, and Rovers. When everyone plays respectfully, this type of game works well! In these games, when the younger scouts have the ball, defense should step back so their opponents are given a real chance to catch, move, and pass the ball.



Ghost in the Graveyard

Ghost in the Graveyard is a favorite nighttime game for many troops, a bit like a reverse game of tag.

Find a good area to play in, preferably one that has a combination of open playing field and good places for hiding, such as trees and buildings. Watch out for terrain that may cause people to stumble in the dark and get hurt and be sure to set clear boundaries for play before you begin!

One scout is selected to be the “ghost” and a starting area is set up as “home base.” The ghost goes out into the playing area and hides while the rest of the scouts, the searchers, count to a large number such as 100—you can change the number based on the size of the playing area and how many people need to hide. Once the game begins, searchers fan out across the playing field, looking for the ghost. The ghost, meanwhile, tries to catch other scouts and turn them into ghosts by tagging them.

If a searcher sees the ghost before they are tagged, they shout, “Ghost in the graveyard!” Any ghosts should come out of hiding to chase the searchers while the searchers try to run for the safety of home base. The ghost tries to tag as many as possible. When everyone is either tagged or safely at home base, the players regroup, with all tagged players now “ghosts.” The game is repeated, with the remaining searchers counting again and all the ghosts hiding. Usually, every round there are more ghosts and fewer searchers. The game continues until the round when the last searcher is tagged as a ghost.

One favorite strategy for later rounds of the game is for hiding ghosts to allow searchers to pass them so that, when someone finally shouts “Ghost in the graveyard,” they can jump out of hiding and be between the searchers and home base.



Find the North

This is a good game to play while taking a break on a hike. You can play individually or by patrol. Each person or team spreads out as far apart as feasible and, without consulting a compass or other instrument, sets down a stick pointing due North. If working by patrol, you have one minute to communicate amongst yourselves before deciding. Compare your results—who was closest to true North, and what methods did they use to determine it?



Nature Treasure Hunt

Another great game to play on a hike, in which players search for the most unique

natural items they can find on the ground. Select categories such as “Leaves” or “Feathers” and each patrol looks for items as you hike, with the trick that each patrol can only have one of each item. You cannot disturb anything to secure your items—leaves must already have fallen off the trees—and no living creatures!

After the hike, patrols compare their “treasures.” Each patrol is awarded the following points:

- Zero points for an item another patrol also has. For example, if two patrols brought back maple leaves, neither would get a point.
- One point for each unique item.
- One additional point if the patrol can identify their treasure—for example, what type of rock or what tree the leaf came from.

Anywhere Games



3b

See and Remember

See and Remember is another fantastic game to play with your patrol. You could change it up by using similar items in different colors, such as crayons. The See and Remember game (then called Kim’s Game) was played by the earliest scouts.

It’s very simple; the scoutmaster or patrol leader collects a dozen or so articles—for example, a pen, pencil, stone, knife, and so on—and covers the items with a necker. The players all sit in a circle, and the game leader uncovers the group of objects for one minute. When the items are covered back up, the players list as many as they can remember. The one who remembers the most wins the game!

There are many different variations you can play. You could add many more objects and have your Patrol work together to refresh each other’s memory.

One way of keeping score is to ask the scouts “Who can list seven items under the necker?” Count the raised hands and ask, “Who can list eight?” Continue until you only have one person with their hand up. If they can list as many as they said, then they win. If they can’t remember as many as they thought, go to the last person to put their hand down and let them have a chance.



Sardines

Sardines is another fun night game that you can play indoors or outside. The play-

ing area agreed, one scout goes off to find a great hiding place while the remaining scouts, the searchers, count to a pre-selected number, like 100. Afterward, searchers fan out looking for the hidden scout.

Once they find the person who hid, instead of exposing them they instead join them in the hiding place. Especially crafty players will, if there is another searcher nearby, pretend that they haven't found anyone until they are alone and can sneak back to join them without giving away the hiding spot. The game continues with more and more scouts trying to stay silent and hidden in a spot that's probably too small to really hold all of them, while the remaining searchers wonder where their friends have gotten to. The round ends when the last person finds everyone hiding, and typically that person is selected to hide first for the next round.



Flip the Tarp

For this game, you will need a tarp large enough for your patrol or troop to stand on, but not so large that you have much room to spare.

Working together, the goal is to reverse the tarp and stand on the other side without anyone stepping off. No hands or feet may touch the ground around you!



The Marshmallow Tower

This is a good one before a campfire. Each patrol gets a bag of marshmallows and a small box of toothpicks. Set a time limit, say 20 minutes, and see which patrol can build the tallest structure.

For a collaborative version have all the patrols work together to see how high you can build your structure. Either way, everyone wins when you roast the marshmallows!



“I Can Do That with One Hand Tied Behind My Back”

Scouts work in pairs of two or more, each with one hand tucked in a pocket or held behind their back. Try to complete basic tasks by working together—making a sandwich, pitching a tent, holding a rucksack open while packing your gear,

raising a flag. If that seems too easy, then tuck your dominant hand away!



The Human Knot

Have your patrol stand in a circle. Everyone reaches in with both of their hands and grab the hand of two other Scouts to create a “human knot.”

Without letting go of any hands, everyone works together to untie the knot. Duck under other peoples’ hands, step over each other, whatever you need to do! You win when you have “untied” the knot into a whole new circle.



The Silent Knot

Once you have gotten good at the Human Knot, do it again but without any verbal instructions. Point and gesture to the extent you can to communicate untying instructions to your Patrol members.



Mousetrap Fishing

This game requires a specific piece of equipment—one mousetrap for each patrol. Be sure to get adult help when learning to set the mousetrap—they can cause painful injuries! Everything else comes from a standard camping kit (paracord, staves) or can be scrounged from the campsite (sticks, a small rock for weight).

The goal is to lash scout staves or fallen branches together and use them to set off a trap from distance.

Begin by marking off the “riverbank,” a line beyond which no scouts may cross. Place the set mousetraps 15 feet, roughly five paces, away from the riverbank.

Each patrol is given a length of paracord, and they must use the cord to lash together sticks or staves or anything handy. At the end of the patrol’s “fishing pole” your patrol must tie a small stone to a length of paracord at least four feet long.

The first team to catch their mousetrap and bring it back to the patrol wins!

If your patrol triggers the trap but fails to catch it on the paracord, then everyone puts the pole down on the ground and one member may go re-set the trap. But be quick, because the patrol can't start fishing again until all members are safely on the riverbank!



"I Spy"

This is another good game that doesn't require a winner. It can be as simple or as complex as you want. One person is chosen to be the "spy" and looks around for something they can see that will be hard for people to guess. Then they say, "I spy with my little eye, something..." and giving a clue. Colors are popular clues, such as, "I spy... something blue." But the clue can be anything you want. Scouts take turns trying to narrow it down, asking yes or no questions which the spy must answer truthfully. When someone's ready, they can guess what the spy is thinking of. If they guess correctly, they become the spy. If they guess wrong, the game continues until someone guesses correctly.

If you are learning bird songs, you can adapt the game to "I Hear with My Little Ear."

Adapting Games to Your Patrol

Games have established rules. Those rules are clear, or ought to be, and fair. But sometimes we agree to change those rules according to the circumstances, just as kids always have done; if we don't have enough people to field two full soccer teams, scouts could play five-a-side or six-a-side. If our baseball field is up against a building, we may need to agree what part of the wall is a home run and which part is in play.

Similarly, scouting has rules. For each badge you want to earn, you can read a list of requirements to meet. But like any other game, those rules can be adapted. Inclusive scouting means taking into account our different abilities. Scouts facing physical challenges might find the standards set out for the Athlete special proficiency badge to be unrealistic. They might not be physically able to run 100 yards in 15 seconds or meet a 3½ foot high jump. Does that mean they can't be athletic?

No! Your scoutmaster is empowered to adjust the rules of scouting where necessary, finding new benchmarks that are challenging but still attainable with hard work and effort.

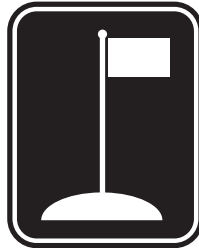
You can adapt almost any game to meet the needs of your patrol. If you want to play tag with scouts who are uncomfortable with any physical contact, use beanbags or other soft material tossed underhand to “tag” each other. Or you could play “shadow tag”, where you step on the other scout’s shadow to “tag” them.

As with most games, rules will change over time. When baseball was first introduced, pitchers had to throw the ball where batters could easily hit it, and if the fielder caught a fly ball on a bounce the runner would still be out. Try that in your local park today! But even though baseball has changed, the basic structure remains the same. So too, we would like to think that the scouts who first gathered at the Crystal Palace Rally in London in 1909 would recognize what we do as scouting. They would marvel at our technology, the clothes we wear and the gadgets we use, but they would have learned essentially the same skills, enjoyed essentially the same adventures, and played essentially the same game of scouting.

Most importantly? Games should be fun and team building. Just like scouting.

End of Chapter Reflection Questions

- What are some of your favorite games? Could you teach them to your troop or patrol?
- Can you invent a game to teach or learn something new?
- What do you think are good ways to figure out when rules should be changed so everyone can participate?



6

AMERICAN FLAG, ANTHEM, AND SONGS

Traditionally, the American flag, when displayed at scouting events, has served as a symbol of connection to the larger community we live in. Just as each patrol has its own symbols and calls, the flag represents the collective identity of the country we live in, and signifies that scouting is not limited to individual meetings or campouts but extends to our lives in society.

In using the civic flags of our country and state, we acknowledge that scouting is intertwined with our larger society. The flag serves as a reminder that our scouting activities are not isolated but are connected to a broader community.

The skills we learn and practice in scouting are not solely for personal growth but also for the betterment of our communities. Learning about the flag demonstrates our commitment to taking our role in the community seriously and helps us determine what our contribution should be.

The Power and Pitfalls of Patriotic Symbols

Symbols of patriotism, such as our flag and our anthem, can be very contentious. Just as it is easy to be friends with someone who always agrees with you, it's easy to support your country when you agree with what it's doing.

But what about when you don't agree?

We sometimes speak of a *national identity* as if there is only one. But the reality is that not all communities are always treated the same, and consequently our experiences and relationship with the nation can vary wildly. Those differences can feel even more distinct in the context of symbols intended to represent us all.

Patriotism can be used as a weapon. Politicians claim they are more patriotic than their opponents and insist that if you don't support such-and-such a policy, or such-and-such an action, you don't really love this country. But is it really that simple? Can our own experiences affect the way we understand and feel patriotism?

Ideals vs. Reality

There is often a cultural expectation for American citizens to show respect to our flag, with the idea that caring for the flag is a symbolic way to honor our country's history and people. Honoring the flag doesn't mean you think America has always been—or is—perfect, but that you esteem the principles of democracy and equality that this nation prioritized upon its founding. By treating the flag as a symbol of national pride, we are trying to focus on what unites rather than what divides us.

People from historically marginalized groups will often have a very different view of our country. Civil rights icon Jackie Robinson, who broke baseball's color barrier in 1947, wrote in his autobiography about standing on the baseball field while the anthem played before games. He felt a strong contradiction between the nation's lofty ideals of equality and the reality of the openly racist treatment he received from fans, other players, and even his teammates. He wrote:

“The air was sparkling. The sunlight was warm. The band struck up the national anthem. The flag billowed in the wind. It should have been a glorious moment for me as the stirring words of the national anthem poured from the stands. Perhaps, it was, but then again, perhaps, the anthem could be called the theme song for a drama called The Noble Experiment... As I write this twenty years later, I cannot stand and sing the anthem. I cannot salute the flag; I know that I am a black man in a white world.”

We cannot, and should not, discount Robinson's perspective. We know that he is not alone. At the same time, flag ceremonies have been part of scout camps since the earliest days. How can we square those traditional practices with our commitment to inclusivity, our promise to welcome all scouts regardless of beliefs?

We square it by doing our best and offering scouts and troops options that are

meaningful to them, so everyone feels they have a voice and that their views and experiences are respected. Find your truth; you may personally participate in the flag ceremonies or not. Some groups choose to skip them altogether. There is no wrong choice, so long as we respect the perspectives, experiences, and opinions of others. And by showing that respect, maybe we can make our own experiment just a little more noble.



Deciding to Fly The Flag

How will your scout group decide if and when to display the U.S. flag? This is a great topic to practice having difficult discussions about things that mean a lot to people. Emotions may be high and conflicting—a clearly outlined process with structures can help people feel safe sharing their emotions. Try to create and participate in a conversation that will help everyone hear, be heard, develop their own thinking, and build trust.

Flag Protests

People show respect for the flag and flag ceremonies differently. People may use the time during display of the flag to protest something currently happening in our country. Here are some things to think about and discuss with your patrol, your leader, and your caregivers:

- What do we do if someone next to us chooses to kneel in respect or protest?
- What do we do if someone next to us does not kneel?
- What do we do if some people stay outside the circle until the flag ceremony is over, then join the circle?
- Why is this piece of fabric more important than any other piece of fabric?
- How can we show respect to each other's choices, whatever they may be?

Having a Difficult Conversation

Before you start a big conversation, agree on what you're trying to decide, and how it will end—not the outcome, but how the process itself will work. It's very important to know from the beginning how the final decisions will be made—will there be voting? Who votes—each person, each patrol, only adult leaders? Maybe feedback is collected and submitted for consideration to a final decision-maker such as the troop's court of honor or your scoutmaster. Will it be a once-and-for-all decision, or re-visited annually?

When everyone understands what you're talking about and the plan for the outcome, you can begin the process of sharing everyone's thoughts and feelings for



Watch For Signs

As a scout, you learn to watch for signs in nature, such as plants budding or animal tracks. You can, and should, also watch for signs in important conversations that maybe the conversation isn't going well, and it might be time to try and help.

People can only talk about something they care about a lot if they feel safe. If they feel like other participants will ridicule their ideas, or them, or begin to get aggressive to make their point, they'll stop sharing. When people stop sharing, any hope of helping everyone understand each other is over.

Some signs that you can look for during a conversation:

Sign	Example
Getting aggressive	Raising their voices, cutting people off, attacking people
Directing the conversation	"It's really like that, don't you think Brooklyn?"
Withdrawing	Refusing to enter or dropping out of the conversation
Labeling opinions so they can be ignored	"Well, I guess that would make sense to a <i>Tenderfoot</i> "
Sarcasm	"Really, Sherlock?" "Well then I guess we should ALL do that!"

consideration. The goal of the first phase of discussion is to make sure there is both collection of opinions with a few rounds of reacting and developing thinking for better understanding. Watch for signs of how it's going. Silence can be good if it's showing that people are contemplating each other's feedback. Silence can also show that people don't know how to respond to what's going on. How can you tell that everyone feels like they have been heard and that all the positions of all the people in the group have been brought up? A scribe can help here, or an agreed quick physical signal people can use to show understanding and support.

You've probably been in discussions where people just take turns going around the circle, but that often leads to people focused on reacting to the person just before them or the loudest voice. Some tools to help are using limits, including non-verbal options, and using very narrow questions. Some examples of limits would be asking everyone to give exactly two sentences or using a timer. Non-verbal options can include physical feedback like a show of hands or thumbs up/down. Written feedback can be gathered and shared a lot of different ways: individually; as a shared list of pros and cons on a board; or a tally board. The big question for this discussion may be, "how do you feel about flag" but that's too big for most people to answer all at once. Try narrow, specific questions like "How would you feel about calling the steps of a flag ceremony?" or "What would you do if the person next to you kneeled instead of saluting?"

It's important to keep plans of action—what to *do* with people's feelings—out of the discussion at the beginning. It's hard to share feelings and thoughts while also worrying about what to *do* with them. Knowing from the beginning how the final decision will be made will give the group the freedom to really share all their thoughts and feelings. That in turn means the final decision will be better informed.

If you and your group were able to do this first part well, you should all be able to calmly state, in your own words, the important ideas and feelings other people have about this topic that should be taken into consideration in the decision. This is good to try with a few people, both because it checks that people understood each other, and helps people feel heard, which strengthens trust in the group.

Then you can turn to a conversation about how to answer the question you started with. Take proposals. Try to get as many ideas out as people have before you start discussing them. Once you have ideas out, encourage people to talk about how their ideas take into account the things we learned in the first round. Discuss a proposal for a few minutes before moving onto another one. Keep watching for signs that people aren't feeling safe. Encourage people to look for ways to compromise, maybe taking parts of different proposals to come up with new ideas that will be more inclusive of everyone.

When you feel that the conversation is starting to get repetitive, that's a good sign it's time to be done. You may ask people to take it away and think about it, or you may turn it over to whatever process you agreed to make a decision. Either way, if you were able to have a conversation where people shared their thoughts and feelings and everyone feels respected, you've done a great job.

The National Flag

The U.S. Flag Design

The current U.S. flag is made up of 13 red and white stripes, one for each of the 13 original established as the original states in 1776. It also has a blue square called a *canton* with 50 white five-pointed stars in the upper left-hand corner. The canton has been repeatedly updated to have a star represent each state: currently there are 50 states, so there are 50 stars. There are some several proposed new states, including Puerto Rico, Guam, and Washington, DC. If they were to become states,

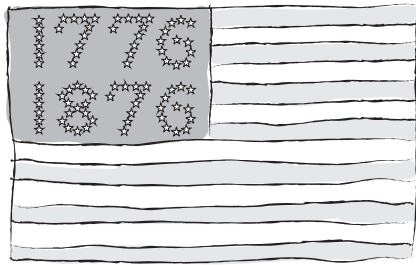
additional stars would also be added to the flag. The flag would be updated on the 4th of July the following year, as is the custom.

The U.S. Flag Code

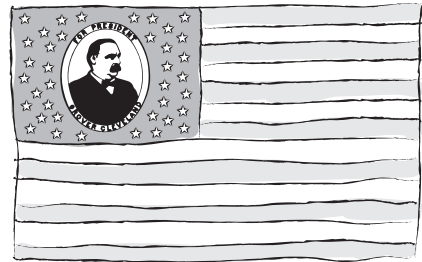
The United States Flag Code governs the design, display, and treatment of the flag. Although the Flag Code is technically a federal law, it is not mandatory. It functions as a series of guidelines with no legal consequences for not following it.

Ever since the flag was adopted as a symbol of the United States, people have been adapting it and remixing it to reflect their feelings about the country, both positive and negative. Although contrary to the Flag Code, these types of adaptations don't have to be considered disrespectful. They can be viewed as a reflection of how different people view, celebrate, or challenge our nation.

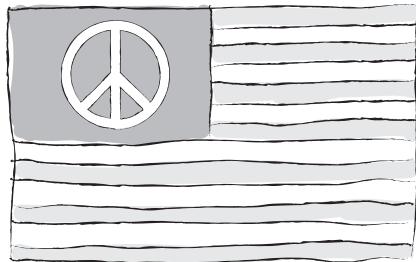
Here are a few examples. What other examples have you seen?



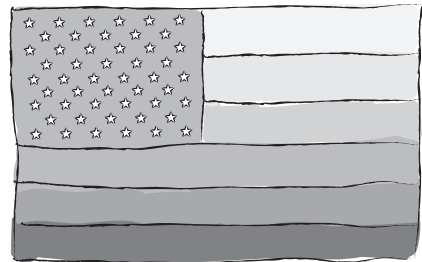
This flag was adapted to celebrate the United States centennial in 1876, with the stars arranged to form numbers.



This flag was created to promote the presidential candidacy of Grover Cleveland.



This flag, with a peace symbol in the canton, was first flown at protests in the 1960s.



This flag, with rainbow stripes replacing the thirteen stripes, was designed to promote equality.

How to Fly the U.S. Flag

The U.S. flag should be flown with the canton the top on the left, the side of the flagpole. The U.S. flag should only be flown upside down as a sign of extreme distress and when in need for actual immediate help. If you ever see a flag flying upside down, you should seek to see if those flying it need assistance.

If accompanied by other U.S. government flags such as state, county, or city flags, the United States flag should be flown slightly higher than the others. The flag should be displayed only between sunrise and sunset, although the Flag Code permits nighttime display “when a patriotic effect is desired.” Similarly, the flag should be displayed only when the weather is fair, except when an all-weather flag is displayed.

The U.S. flag should only be flown using a flagpole, never hung from a tree, or draped over an object such as a tent.

The flag is saluted as it is hoisted and lowered. The salute is held until the flag is unsnapped from the halyard or through the last note of music, whichever is longer. The U.S. flag should be folded as described below when not in use.

Half-Staff (or Half-Mast) Explained

The flag may be flown at half-staff—in the middle of the flagpole—in times of national mourning. It is only called half-mast when on a ship, by U.S. law. Notable days when the flag is flown at half-staff include:

- Memorial Day, the last Monday in May, only until noon
- September 11, in remembrance of the September 11th attacks
- May 15, Peace Officers Memorial Day
- December 7, Pearl Harbor Remembrance Day

When a flag is to be flown at half-staff, the flag should first be raised to the top of the pole and held there for a moment before being brought down to half-staff. When lowering a flag from half-staff, it should also be raised to the top of the pole for a moment and then lowered.



4



What's a Canton?

There is a whole body of terminology and ideas around flag design and use—people have considered flags important symbols throughout history and all over the world. *Vexillology* is the art of designing flags.

In vexillology, a *canton* is a rectangular element at the top left of a flag. In the American Flag, this is the blue rectangle where we have the stars representing each of the states of the United States. The field is the section of red and white stripes.



4



How Many Red Stripes?

It's easy to remember how many red and white stripes are on the flag if you can remember that the top and bottom stripes are red. If they were white, it would be harder to see the edges of the flag against the sky. Because the stripes alternate, that means the 13 stripes must include 7 red and 6 white stripes.

Only the President, State Governors, and the Mayor of the District of Columbia can order the U.S. flag lowered to half-staff. The President is authorized to lower the U.S. flag by proclamation upon the death of principal figures of the U.S. government. They may also lower the flag at other times, as well: upon the death of the governor of a state, territory, or possession, or of other officials or foreign dignitaries. A state governor may order the U.S. flag to half-staff upon the

death of a present or former official of the government of the state, or the death of a member of the Armed Forces from that state who dies while serving on active duty.



4

Carrying a U.S. Flag in a Parade

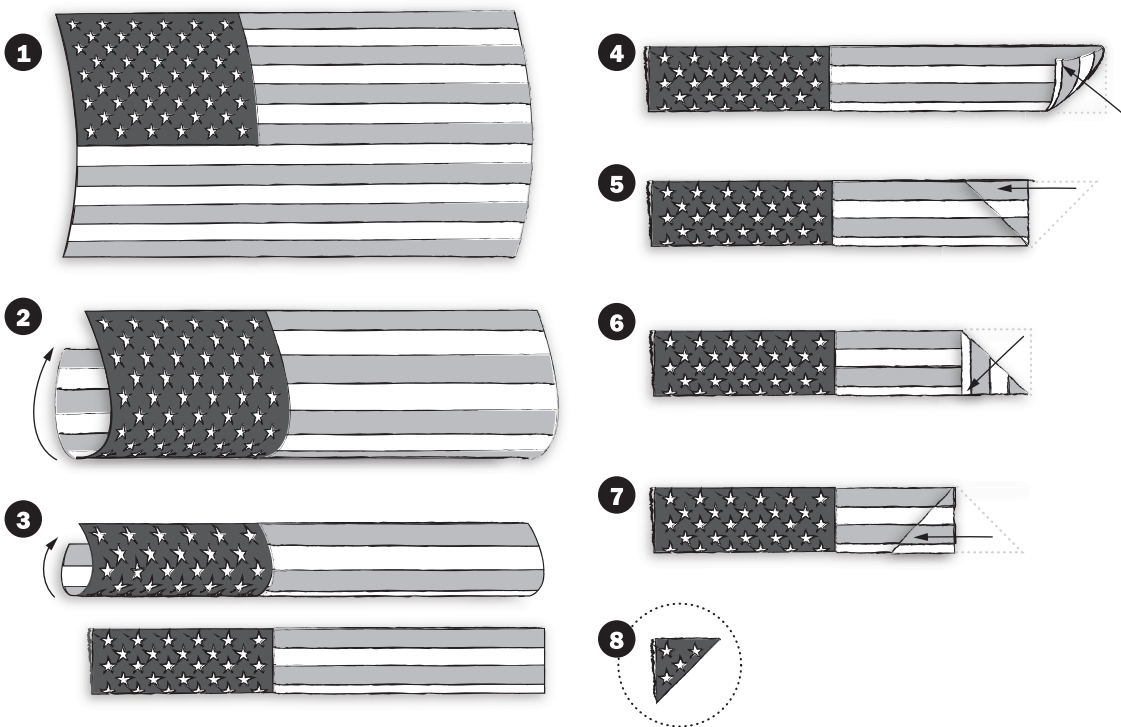
When placed upon a stage facing an audience or carried in a parade, the flag should always be on the observer's left, which would be the speaker's or carrier's right. It's important that the flag should be carried firmly and securely.

Folding the U.S. Flag

If you are to participate in a flag ceremony, it is important to learn to fold, present and retire the flag properly, which means you should understand the symbolic meaning of the American flag-folding ritual. The American flag is not just folded up into a square, it is folded into a triangle, which is sometimes said to resemble the shape of the tri-cornered hat worn by the colonial soldiers during the American War for Independence. When folding the flag into a triangle, you start with the stripes, and end with the stars, so that the flag is folded into darkness for the night.



4



- 1 Hold the flag out flat.
- 2 Fold in half, lengthwise.
- 3 Fold in half lengthwise again, keeping the canton facing out.
- 4 Create a triangular fold by bringing the striped corner of the folded edge across to the open edge.
- 5 Turn the outer point inward, parallel to the open edge, to form a second triangle.
- 6 Take the open edge corner and fold across to the folded edge, forming another triangle.
- 7 Turn this outer point inward, parallel to the folded edge.
- 8 Continue folding triangles tightly until you have the whole flag wrapped, and finish by tucking the loose edge inside a fold.

Flag Traditions

Raising and lowering one's national flag has always been a part of the scouting movement and is also common at residential camps and other outdoor education programs. You can look at these ceremonies as opportunities for centering the whole group, as they start and end our day together in silence, observing tradition. We welcome all people to the circle, but do not require anyone to participate in a flag ceremony, and not all groups will choose to hold flag ceremonies at their meetings and camps.



Bugle Calls

Traditionally, "Post the Colors" is played as the flag is both raised *and* when it is lowered. Some scout groups may also choose to play the national anthem when raising the flag or "Taps" before lowering the flag. "Taps" is a traditional song signaling the end of the day.

If your group chooses to hold a flag ceremony, it is important that the people who perform it—who carry, fold, raise, lower, and salute the flag—are women, men, non-binary, young, old, people of color, LGBTQ+, immigrants, and hold a variety of religious and secular beliefs. This reflects the diversity of our organization and our country. Those who wish to define patriotism as one dimensional

should look no further than an Outdoor Service Guides flag ceremony to see why we are proud to stand together as fellow scouts, ready to serve; at its best, the flag ceremony is our attempt to bring people together.

- Pathfinders should try to attend all flag ceremonies in uniform.
- The command "ALERT" means that everyone should stand quietly with hands at their sides and face the flagpole area. We do not use the term "Attention", which has military overtones.
- During the ceremonies, when a salute is called for, Pathfinders in uniform give the appropriate salute: three fingers to the brow, or with the arm at a right angle across your chest if you're holding your patrol flag or a staff. Family members, guests, and scouts not in uniform who wish to show this type of respect to the flag should place their right hand over their hearts.
- The command "TWO" is the signal to drop the salute.
- Everyone should be silent and respectful during the flag ceremony, and not enter the center of the circle.
- For any Pathfinders who do not wish to salute the flag, or who are present

when another country's flag is being raised, they may stand in quiet respect with their hands at their sides.

There are directions for how to have a flag ceremony at the end of this chapter, starting on page 114.

Flying Other Flags

OSG groups may choose to fly flags that represent their state, county, city, or group at their campsites, in addition to the U.S. flag. Some groups may fly the OSG flag, or the flag of the WFIS. If the U.S. flag is to be flown it should always be raised and lowered first, as a sign of respect, and placed in the middle and slightly higher than other flags. Second should come state flags, followed by city flags, then OSG specific or group specific flags. In general, the principle is to go from the larger group to the smaller group. Flags can create a sense of community and any flags used by a group should be agreed upon by the group as representing them and their values.

Patrol flags are also important to scouting. Once your patrol has chosen a patrol mascot you should work together to create a flag that represents your patrol. This flag can be as simple or elaborate as your patrol chooses. This flag should be displayed at your campsite on camping trips to designate your space as a patrol.

Disposing of American Flags

Contrary to urban legend, the Flag Code does not state that any flag that touches the ground should be burned. Instead, it is considered disrespectful to the flag and the flag in question should be quickly moved so that it is no longer touching the ground.

Many flags are made of synthetic fibers that are very toxic when burned. The customary way to dispose of a synthetic flag is to remove the canton from the field. Then cut the field into colors red and white. Then it is no longer a flag and can be disposed of in an appropriate way. Recycle when possible.

Burning the Flag

Historically, American flags have been burned as a sign of protest actions or decisions of the U.S. government. The right to protest is one of the most important parts of having a free nation and flag burning is currently protected as a form of free speech under the U.S. Constitution. Think about how freedom of expression and the United States flag are intertwined.



4

The Pledge of Allegiance

At the start of a Pathfinder meeting, Pathfinders may choose to say the Pledge of Allegiance or sing the National Anthem. If you are in uniform, you may salute the flag. If you are not in uniform, you may place your right hand over your heart.

The Pledge of Allegiance

I pledge allegiance to the flag
of the United States of America,
And to the republic, for which it stands,
One nation,¹
With liberty and justice for all.

Of course, that's just one way to open meetings. Other groups start meetings off by joining together and reciting the Scout Law or through a shared song. Whatever you decide to do, it's a good idea to think about it carefully. A good meeting opening will help scouts transition from their day into "scout meeting mode" and get them ready to be active participants in scouty fun.

Anthems

The Star-Spangled Banner

Our official national anthem is "The Star-Spangled Banner," written by Francis Scott Key during the War of 1812 and set to the tune of a popular drinking song from that era. From the ship the HMS *Tonnant*, Key observed the British naval bombardment of Fort McHenry, which guarded the port of Baltimore. The attack was fierce, with bombs and rockets assailing the fort throughout the night. The success of the attack was unclear until, in the first light of dawn, soldiers in the fort raised a large American flag, signaling that they were still standing strong and ready to defend their country. Inspired, Key began writing the poem that would be



Did You Know?

The flag raised over Fort McHenry that day had 15 stars and 15 stripes, part of an early United States tradition to add a star *and* a stripe for every new state to join the union.

¹ "Under God" was added to the pledge in 1954, and may be stated here, or not, as your group chooses.

officially adopted as the national anthem in 1931.

The Star-Spangled Banner

Oh, say can you see by the dawn's early light
 What so proudly we hailed at the twilight's last gleaming?
 Whose broad stripes and bright stars through the perilous fight,
 O'er the ramparts we watched were so gallantly streaming?
 And the rocket's red glare, the bombs bursting in air,
 Gave proof through the night that our flag was still there.
 Oh, say does that star-spangled banner yet wave
 O'er the land of the free and the home of the brave?

As a national symbol, the anthem has been at times controversial, and unofficial anthems have been adopted in response by communities across our country.

Lift Every Voice and Sing

A poem written in 1900 and set to music in 1905, “Lift Every Voice and Sing” was quickly adopted as a “Black national anthem” by some people who felt unrepresented by existing national symbols. It has seen renewed popularity during times of focus on civil rights.

Lift Every Voice and Sing

Lift every voice and sing
 Till earth and heaven ring,
 Ring with the harmonies of Liberty;
 Let our rejoicing rise
 High as the listening skies,
 Let it resound loud as the rolling sea.
 Sing a song full of the faith that the dark past has taught us,
 Sing a song full of the hope that the present has brought us,
 Facing the rising sun of our new day begun
 Let us march on till victory is won.

This Land Is Your Land

“This Land is Your Land” was written by Woody Guthrie in 1940 as a ballad about our country. It was meant to be more inclusive of our diversity as Americans than other patriotic songs of the time; unlike other anthems, Guthrie’s song speaks not only to our lofty ideals as a nation, but how short we sometimes fall in attaining them. It’s also easy for most people to sing. Many OSG groups enjoy singing it around the campfire or at meetings.

This Land Is Your Land²

This land is your land, this land is my land
From California to the New York island,
From the redwood forest to the Gulf Stream waters;
This land was made for you and me.

As I was walking that ribbon of highway
I saw above me that endless skyway;
I saw below me that golden valley;
This land was made for you and me.

I've roamed and rambled and I followed my footsteps
To the sparkling sands of her diamond deserts;
And all around me a voice was sounding;
This land was made for you and me.

When the sun came shining, and I was strolling,
And the wheat fields waving and the dust clouds rolling,
As the fog was lifting a voice was chanting:
This land was made for you and me.

As I went walking I saw a sign there,
And on the sign it said "No Trespassing."
But on the other side it didn't say nothing.
That side was made for you and me.

In the shadow of the steeple I saw my people,
By the relief office I seen my people;
As they stood there hungry, I stood there asking
Is this land made for you and me?

Nobody living can ever stop me,
As I go walking that freedom highway;
Nobody living can ever make me turn back
This land was made for you and me.

² Words and music by Woody Guthrie. ©Copyright 1956 (renewed), 1958 (renewed), 1970 and 1972 by Woody Guthrie Publications, Inc. & TRO-Ludlow Music, Inc. (BMI)

Scout Songs

Anthems aren't the only songs we sing. Singing scout songs is a tradition as old as scouting. It builds community and is a lot of fun! Learn some songs to sing with your patrol. Try these songs or find modern ones you and your patrol enjoy together.

Make New Friends

Make new friends,
But keep the old.
One is silver,
The other is gold.

A circle is round,
It has no end.
That's how long,
I will be your friend.



Singing while hiking may scare away the local wildlife, but it can help you and your group travel together. Singing also can help you keep the same pace: faster songs will make everyone step more quickly, while slower songs tend to be good for times when everyone is tired.

Everywhere We Go

*(Call and response, insert patrol or group name in the blanks.
Start off very quiet and repeat until nice and loud.)*

Everywhere we go,
People wanna know
Who we are,
So we tell them.
We are the _____ !
The mighty, mighty _____ !
And if they can't hear us,
we'll shout a little louder!



Black Socks

*(Sing as a two-part round, one half singing the “verse”
and the other half “not yet, not yet, etc.”)*

Black socks, they never get dirty,
The longer you wear them the stronger they get.
Sometimes I think I should wash them,
But something inside me says No, no, not yet.
Not yet, not yet, not yet...



A great way to end a meeting, or finish a campfire, is with Vespers, an old scouting song that ends on a quiet note, unlike most scout songs.

Vespers

(Sung to an old German folk tune used in the song “O Christmas Tree”)

Softly falls the light of day,
While our campfire fades away.
Silently each scout should ask:
“Have I done my daily task?
Have I kept my honor bright?
Can I guiltless sleep tonight
Have I done and have I dared
Everything to be prepared?”

Flag Ceremonies

Here are typical flag ceremonies used by OSG scout groups that choose to raise and lower the American flag as part of their activities. These might be used at the beginning and end of each day at a troop or multi-group camping trip, or at the beginning and end of troop meetings.

For a flag ceremony, scouts line up by patrol either in a horseshoe facing the flagpoles or in straight lines starting across from the flagpoles.

In both cases, members of a patrol should line up together with the patrol leader on the left and the seconder at the end of the patrol on the right. The patrol leader holds the patrol flag as they would a scout staff. Audience members who are not scouts may join either between patrols or at the end of a side.

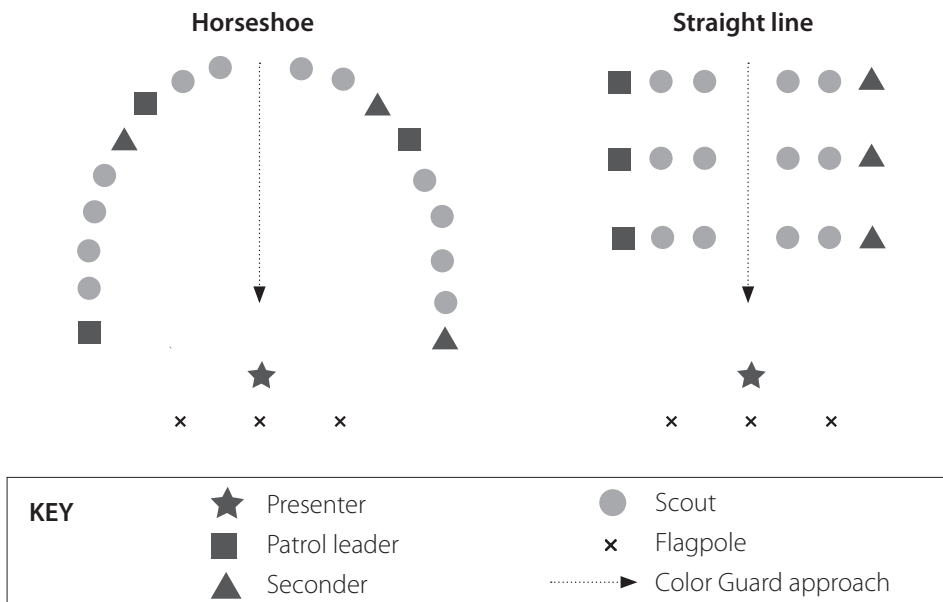
Each ceremony is led by a Presenter. The Presenter stands with their back to the flagpoles, facing the group.

Flags are carried by a Color Guard. There should be one Color Guard member carrying each flag plus an additional member to help raise the American flag, so if there are three flags there will be four members of the color guard. They should be standing silently, awaiting the beginning of the ceremony, at the far end of the field opposite the presenter. If attendees are in a horseshoe, they should leave a gap sufficient for the Color Guard to pass through.

When the Color Guard advances to the flag poles, they may either form a single file line or walk abreast. When walking single file, the member holding the American flag should be first. When walking abreast, Color Guard should do their best to maintain a straight line, and the member holding the American flag should be on the Color Guard's right side.

All scouts in attendance should be in uniform. Presenter and Color Guard must be in uniform.

Flag Ceremony Formations



Raising the Flags

All words in bold are announced by the Presenter. Responses/actions are in square brackets [like this].

Please stand for the presentation of the colors. [Audience stands and is silent.]

Scouts and audience, alert. [Scouts stand at attention.]

Color Guard, alert. [Color Guard stands at attention.]

Color Guard, advance. [Color Guard walks to flagpole.]

Color Guard, halt. [Color Guard halts at flagpole.]

Color Guard, post the colors. [Two members of the Color Guard handling the American flag unfold the flag and hook the flag to the lanyard.]

Scout salute! [As the American flag is raised, scouts and other members of Color Guard salute. Audience members stand at attention with their right hand over their heart. Color Guard hoists the flag smartly to the top of the pole and ties off the lanyard securely. If desired, a bugler may play “Post the Colors” as the flag is being hoisted. If it is played, the entire call should be played—not stopped in the middle. When Color Guard finishes, they stand at attention.]

Color Guard salute! [Color Guard salutes the flag.]

Two! [Audience and Color Guard salutes are released.]

[Color Guard post any remaining flags. The member of Color Guard who did not carry a flag may assist in the raising of any flags, as necessary. Once all flags are raised, all members of the Color Guard stand at attention facing the flags.]

Color Guard, about face. [Color Guard turns toward their right until facing the back of the formation and stands at attention, prepared to exit.]

Forward, march. [Color Guard leaves the field in the same manner as they entered. Presenter waits until the Color Guard has proceeded beyond the formation.]

Halt. [Color Guard stops.]

Color Guard, dismissed. [Color Guard members return to their patrol(s).]

Audience, at ease.

Typically, at a scout event such as a camping trip, before dismissing the audience the Presenter will use this opportunity to address the scouts and audience on topics of interest, such as the schedule for the day, any safety concerns, or what time to return to camp. Afterward, the Presenter calls all present to attention and dismisses the gathering.

Retiring the Flags

All words in bold are announced by the Presenter. Responses/actions are in square brackets [like this].

Please stand for the retiring of the colors.

Scouts and audience, alert. [Audience stands and is silent.]

Color Guard, alert. [Color Guard stand at attention.]

Color Guard, advance. [Color Guard proceeds to flagpoles.]

Color Guard, halt. [Color Guard stops.]

Color Guard, retire the colors. [Presenter waits until the Color Guard has unwound the rope and is ready to lower the American flag.]

Scout salute! [Scouts and remaining Color Guard salute. Audience members stand at attention with their right hand over their heart. Color Guard lowers flag slowly and reverently, catching the flag before it touches the ground. If desired, a bugler may play “Post the Colors” as the flag is being lowered. If it is played, the entire call should be played—not stopped in the middle.]

Two! [Once the flag is unhooked and in the color Guard’s hands, salutes are released.]

[After the flag is unhooked, a member of the Color Guard ties the lanyard off securely while other members fold the flag. Color Guard then retires any remaining flags.]

Color Guard, about face. [Color Guard turns toward their right until facing the back of the formation and stands at attention, prepared to exit.]

Forward, march. [Color Guard leaves the field in the same manner as they entered. Presenter waits until the Color Guard has proceeded beyond the formation.]

Halt. [Color Guard stops.]

Color Guard, dismissed. [Color Guard members return to their patrol(s).]

Audience, at ease.

End of Chapter Reflection Questions

- Does your troop fly the American flag at any events? How do you feel about that?
- What are ways you can have difficult conversations when your close friends disagree about an issue that feels important?
- Are there any other songs that your group or community like to sing, to celebrate our country, its history, or its diversity? You can choose ones that are old or new. You can even make up your own!



7

THE INDOOR SCOUT

Household Helper and Caregiving Skills

Scouting is a way of life that teaches all of us to pay attention and see what we can do to make things go better, noticing what might help others, and then doing it. The best place to practice this is in our day-to-day lives, in our homes and schools, with those we live and play with every day.

The scout at home helps their family in many ways, large and small, by taking care of themselves and helping with shared responsibilities. Along the way, you'll learn new skills that are fun, creative, and useful.

A Chore Chart

A chore chart is a good way to help everyone in the house share the work of keeping a clean home. Seeing what everyone is doing helps things feel fairer, and also highlights when someone is doing more (or less) than their fair share. Also, it's definitely acceptable to divide work by who likes to do what! If you hate doing dishes, see if someone else will do them while you do something else, like walking the dog or getting the recycling ready.

Sample Chore Chart

NAME	TASK	SUN	MON	TUE	WED	THU	FRI	SAT
Payton	Mow lawn	<input checked="" type="checkbox"/>						
	Make breakfast		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Leslie	Vacuum			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	Laundry		<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
Robin	Take out trash					<input type="checkbox"/>		
	Load dishwasher	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kris	Pack lunches		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Clean bathroom				<input type="checkbox"/>			<input type="checkbox"/>
Taylor	Feed pets	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Clear table	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A good idea is to list out chores by week. Try to include one or more chores that each person will do every day, like setting the table for dinner or washing the dishes, with a couple of chores that only happen once a week, like cleaning the bathroom or taking out the trash. That way, knowing your own responsibilities, you can figure out on your own the best time to do it.

It's handy to post this chart somewhere easy for everyone to see, and to have a way to mark when things are done.

Laundry

Through work, play, and just plain use, clothes get dirty. Why are clean clothes important? Oils from your body and other residue can allow microorganisms to grow on your clothes which can lead to body odor or even skin infections. You'll want to put on clean underwear and socks every day and wash your outer clothing after four or five wears, if it starts smelling, or whenever visibly dirty. Some people prefer to wash their clothing more frequently. Exercise clothes should also be washed more frequently.

Whether you have laundry machines in your home or apartment building or take your clothes to a laundromat, learning the basics of doing laundry is a simple, useful way to help your family. The quick steps are:

1. Sort
2. Measure
3. Wash
4. Separate
5. Dry
6. Fold
7. Put away

Delicate Matter



Pay special attention to fabrics that are delicate—if you don't know which ones those are, feel for cloth that is thin and feels especially smooth to the touch, or anything that stretches when you wear it.

Sort your clothes, typically by color and what type of washing they need. This will protect your favorites from getting damaged in the wash. Generally, separate whites from bright, bold, or dark colors. If you don't, you may find that your favorite white shirt comes out of the wash looking very dull... or even a new shade of pink! Also wash separately very dirty things like muddy clothes from the campout and wash that needs to be sanitized, like rags used to clean bathrooms.

Measure the laundry detergent. Most detergents come with a cap or scoop that have measurements marked for the different size loads. Put the detergent into the machine before the clothes (depending on the washer,) so it doesn't leave marks on your clothes before the water has time to dilute it.

Wash the clothes by putting them in the machine and choosing the settings. If the clothes are delicate or might shrink, use warm or cold water. If you don't know what to choose, cold water is safest and will get most clothes clean just fine. Cold water is also more environmentally friendly, as it saves the electricity used to heat the water. Most washing machines have different wash cycles for colors or whites. If you have extra-dirty laundry, for example, after a camping trip, you may want to do a "pre-soak" (if your machine has that option). This means just letting the laundry sit in soapy water before the washing starts, so the soap can pre-soak the dirt out.

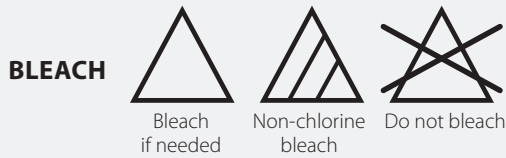
Separate your clothes after washing, pulling out anything that can't be put into a dryer. Again, this is where you pay special attention to delicate or stretchy fabrics, which are best air dried. Your family may have a drying rack that allows you to spread out these clothes completely or hang on a hanger. Bunched up wet clothing won't dry well and can even mildew and start to smell.

Dry everything else in a dryer if one is available. The most important setting on a dryer is the temperature—most clothes should be dried on medium. Save the



Laundry Care Symbols

Do you know it's a law that every article of clothing has to have a tag saying what kind of fiber it's made of and how to care for it? Sometimes there are words like "Machine wash warm/Tumble dry low" but often there are just symbols. Most important is the temperature to wash and dry each item.



Dry cleaning is a method to clean clothes that is done at a special shop. It isn't actually dry—it's done with very specialized liquid chemicals that are very gentle on some fabrics and garments, but toxic in the environment. It's less and less common to have dry-clean-only garments, but it is often the only way to clean suits and formal wear like fancy dresses. Because it's expensive and so hard on the environment, it's something to look out for when you're doing laundry and when you're shopping for clothes.



highest temperature for your toughest clothing, such as cotton or denim. Nothing stretchy—with spandex, nylon, polyester, or similar artificial fabrics—should ever be dried on high. Especially delicate clothing may occasionally go through the dryer using the “tumble dry” or “low” setting.

Fold or hang your clothes as soon as possible once the dryer is finished, to minimize wrinkles and help keep you looking your best.

Put away your clothes in whatever place you have set up for them, whether a dresser, closet, or some other method.

Cleaning

Helping keep your home clean and tidy can be a huge gift to yourself and your family. It simply feels better to walk into a room where things are mostly tidy and look clean. It's much easier to be ready to cook and serve dinner if you don't have to spend time cleaning the kitchen before you start!

Cleaning has big health benefits too. Dust and dirt in the air can set off people's allergies, making breathing difficult for those with asthma and other respiratory conditions. Pots and pans and all the work surfaces in a kitchen need to be regularly cleaned to prevent foodborne illness. Some studies have even shown improved happiness when people keep their homes tidy.

High to Low

A good approach to cleaning almost any room is to clean from high to low. For example, wiping down a counter or table will often push some of what you're trying to clean onto the floor, so you should wipe down first, and clean the floor after. If there are high shelves or a ceiling fan, do those before the lower shelves or tables.

Supplies

Every family has their own way of cleaning, and the adults in your household almost certainly have their favorite cleaning supplies. Get them to show you where the cleaning supplies are kept in your house and how to use them safely. Ask about safety, as some cleaning supplies can be dangerous if combined or used improperly.

Dusting

When dusting, the key is to not spread all of the dust on a surface back into the air where people can breathe it in, or it just settles back down on the furniture or the floor. Instead, get a good rag and moisten it with your dusting spray, then wipe down the surface. This helps the dust stick to the rag. As the rag gets dirty, refold it to find another clean part and spray the rag again.

Floors

How you clean a floor depends on what type of floor it is. For carpeted floors, a vacuum is your best bet. Some upright vacuums have different settings for the type of carpet, from a carpet with low, tight fibers to those with long, wavy fibers, so if yours does, check the setting before you begin. It's also a good idea to check

the vacuum bag or filter before you start and, if it's full, change it. Move furniture as you work, so you can get under the furniture and reach every wall and corner.

For floors without carpets, start with a good sweep to remove loose dirt. Then mop using products best for that type of floor. A tile floor can then be mopped with hot, soapy water, while a wood floor may be better treated by using a dust mop and spraying the floor with a solution of equal amounts of white vinegar and water, perhaps with an essential oil for scent. Again, be ready to move furniture around to get all the parts of the floor.

The Kitchen

Cleaning the kitchen so it's ready for cooking the next meal is more than just washing the dishes. It only takes a minute to wipe down all work and surfaces and the table with a clean, damp cloth. Also wipe down the stove and do a quick pick-up, putting things away so that counters and tables are clear. Then, do a quick sweep of the floor. Maybe once a week the floor will also need a mop.

The Bathroom

The bathroom may be the best room in the house for cleaning from high to low. You also may want to wear protective gloves if you have some. Some people start by putting their favorite cleaner into the toilet. While that's soaking, wipe down the sink and scrub the tub or shower. Keep an eye out for any dark spots, especially in corners or between tiles, that may be the start of mold or mildew. Don't forget to wipe down the mirrors while you're at it!

After scrubbing the toilet bowl with a brush, don't forget to wipe the rim of the bowl and the seat. Put things away where you can, mop the floor, and you're done. It takes less time than you expect!

Your Room

Your room may be your private space where you can get time alone, or you may share it with your sibling. Either way, keeping your room clean and tidy makes it a more relaxing and pleasant place to hang out— and with a little maintenance it doesn't take much time.

Maybe the single best thing you can do to make it easier to keep your room tidy is to *set up your room so that it makes things easy to put away*. Also, try to develop the habit of putting things away when you're done with them. The less work to put something away, the more you'll do it—and the more you put things away, the less

you must put away each time. Just getting everything off the floor or the bed can make a big difference.

Once a week, spend 15 minutes cleaning your room. Sweep or vacuum the floor, change out your dirty sheets for clean ones, and, if possible, air out the room for 30 minutes by opening windows, or at least letting in some natural light and opening any doors you have. Wipe down surfaces to get rid of dust, and you're done!

Hospitality

For many young people, hanging out with friends is the best way to spend your time. It's great to go out, but going out can cost money, you might need to find someone who can drive you and pick you up, or maybe it's just easier or better to hang out at one of your houses. When it's your turn, you want to make sure your friends feel welcome and comfortable—that's what we mean when we talk about "hospitality."

The people who are planning an event and sharing their home or yard are the hosts, and the folks who show up are the guests. Although in the past people wrote whole books about how to be a good host, the core is to help make your guests comfortable—which you can do by remembering a few simple rules:

- Invite guests ahead of time.
- Greet and introduce guests.
- Help everyone have fun, inclusive conversations.

Invitations: Give people have time to plan by letting them know ahead of time that you're hosting an event. Invitations could be mailed for a more formal event like a graduation party, or you could just send a text thread asking friends if they want to come over on Friday. This way, you can get an idea of who might come, people have a chance to figure out how they can make it happen, and no one feels left out because they heard about it at the last minute.

Greet and introduce: When someone arrives, go over to say hi as soon as you can. It makes people feel like the host really wanted them to come. If everyone already knows each other, you won't need to introduce guests to each other. But if there's a new friend at school, or you're maybe bringing people together that



What's a Good Introduction?

A good introduction helps people relax. Really, it's taking someone over to meet someone else, making sure they know each other's names, and saying something about why they'd get along, or some interest they share. That's it!

For example:

Host: "Digby, have you met Zephyr from the drama club?"

Digby: "Nope."

Host: "Well, you two should talk. I know you like role playing games, and Zephyr here runs a great game on Thursdays after school. Zephyr, you may not know it, but Digby plays the greatest Wizard in all of Trenzalore. Last month, they punished me by making a water elemental follow me around and spit water in my friends' faces for a week."

you know from different places, the only thing some of them know they have in common is *you!*

Help great conversations happen: Make sure that nobody feels left out. If you're hosting a large party, this might mean walking around a few times and stopping to talk to different groups of friends. In small groups, watch out to see that everyone is comfortable and having a good time, and, if not, think about what you can do to help fix it. This is one of the most important jobs of a host.

Provide good food and drink: Whether your friends are coming over for an afternoon video game session, a movie night, or a full party, make sure there are snacks and drinks that everyone will enjoy. Does anyone coming over have allergies or things they don't eat? You probably know what many of your friends like to eat from hanging out together, so plan and have a couple of things ready to share. Even if you're just hosting one friend who came over unexpectedly and you don't have anything in the cabinet, you can, and should, offer them a glass of water when they arrive and again later if they stay more than a few minutes.

Food Storage and Canning

Introduction

When we think about food, we probably think first about eating... then maybe about cooking. But first we need to make sure food is available. Many of us get our food from the supermarket, bodega, or a local farmer, but growing and preserving your own food can be a fun way to help your family eat healthier and more delicious meals.

The easiest way to store food in the modern world is to freeze it. Lay fresh berries on a sheet pan to freeze separately, so they don't stick together. Then place them into an airtight container in the freezer for up to three to six months. Use them in smoothies or other recipes as needed!

Freezing works for storing certain fruits and vegetables in much the same state they grew. But what if you want to store something a bit more processed, or don't have space in the freezer? That is what canning is for! Canning is the process of putting cooked vegetables, sauces, jams, pickles, or soups in airtight jars to eat later. Done correctly, canned food can last for 12 months or even longer. More importantly, since well-canned food can stay on the shelf without refrigeration, canned food won't spoil if you lose electricity.

In the modern world, canning might be frugal if you're using it to save food that you already have which might otherwise go to waste. For example, if your family has a garden and all your tomatoes are ripe at the same time, it may be impossible to eat them all, so you might decide make tomato sauce and can it instead. The jars can also be reused year after year. On the other hand, if you're buying all the equipment and food just to do some canning it may be quite expensive and take a lot of time. Working together as a family, you might work a whole weekend to can some garden veggies or make and preserve jam.

Key Concepts

Making sure that canned food is safe to eat is all about creating an environment where dangerous bacteria, such as botulism, can't grow. Our main tools to avoid botulism are acid, heat, and creating a vacuum.

Acid: Acidic foods can slow or prevent the growth of botulism. This is why it's safer to can high-acid foods like citrus or fruits, vinegar-brine pickles, or sauces with high sugar content like jam. Did you know sugar is acidic? When the food you're

canning has enough acid, you can use simpler equipment for canning because you don't need to get the cans super hot.



Pressure and Heat

When you boil water, heat escapes through the steam so the water never gets hotter than boiling temperature—which varies based on altitude because of the pressure of the air on the water changes. Pressure cookers and pressure canners can let you get the inside of your pot hotter by using a sealed lid to hold in the steam to create pressure—preventing the water from releasing energy and allowing heat to build up. At sea level, boiling water only reaches 212°, whereas the USDA recommends canning temperatures for low-acid foods at 240–250°.

Heat: Most dangerous bacteria can't survive high heat, but some may be able to survive temperatures hotter than you think. If you're canning a food with high acidity, it can be enough to sterilize your jars and lids by immersing them in boiling water. You should look up how long to boil them based on your altitude and whether the food you're canning is going to be packed hot.

If a food doesn't have high acid, you need more heat to ensure safety. In these cases, you'll need a special piece of equipment called a pressure canner. If you're going to use

a pressure canner, be sure to work with an adult who knows the equipment well and look up the times and temperatures for your food and altitude to ensure that you're canning safely.

Vacuum: Even if you do everything else right, letting food have contact with air once it has cooled could ruin everything. You'll want to make sure to leave the amount of head space—the amount of space between the top of the food and liquid and the top of the jar—required by your recipe to handle food expansion. Typically, as the food and jars cool the air will contract, pulling down on the lid and forming a vacuum that will keep the food safe. This is the magic of canning! Make sure you test your seals afterwards.

The Canning Process

Here is an overview of the process to get you thinking about what might be possible. However, food safety is critical—contaminated food can make you very sick, or worse—so you should consult more detailed resources such as those provided by the National Center for Home Food Preservation before trying it yourself. And no canning by yourself. Be sure to work with an adult throughout the process.

To make sure your canned food stays good and doesn't become contaminated, be sure your jars and lids are very, *very* clean before you start. Boiling them is one

way to make sure all germs on them are killed. However, most modern cooks find that running them through a sanitize or hot wash cycle on a dishwasher and a heated dry, also works well. Also make sure that your hands and cooking utensils are very clean. Germs in your canned food can cause the food to spoil and be a source of food poisoning that will make you and your family sick.

Next, prepare the recipe for what you are going to can. Soups and sauces can be prepared as usual, then boiled, and placed in the clean jars. However, one of the most rewarding things to can is jam. To make jam, purchase fruit pectin, such as Sure-Jell, and follow the directions in the package. Jam is basically fruit, sugar, water, and pectin boiled together. For smoother jam, chop your fruit fine, and cook it until soft. Then mash with a potato masher or put it through your blender. If you like your jam with chunks of fruit, just skip the blender and mashing steps.

One of the most important steps in canning is setting up a workspace where you'll put your lava hot jam or sauce into jars. You'll need a place where you can remove it from the heat and ladle the jam into jars. Be sure to set this up before you start cooking. You'll also want to have a canning funnel to help you pour into your jars, and clean kitchen towels you can use for wiping jam off the lip of the jar. Hold the funnel in the jar, ladle the jam into the jar, leaving some space at the top, then wipe the rim of the jar. Place the flat canning lid that you washed or boiled onto the jar and add the ring. Tighten the ring.

Sometimes, this lava hot jam will cause the jars to seal themselves. However, you can also make sure your jars seal by dipping them for a few minutes in boiling water. Before starting, make sure you have canning jar lifter tongs, which make this process safer. Also, place a canner rack in the bottom of your pot so the jars won't be sitting on the bottom of the pot. Boil as directed in your recipe. You can tell a canning jar is sealed if the lid has pulled itself down tight from the heat and cannot be flexed. Unsealed lids make a small popping sound when pressed in the middle.

Tailoring

Why Learn to Sew?

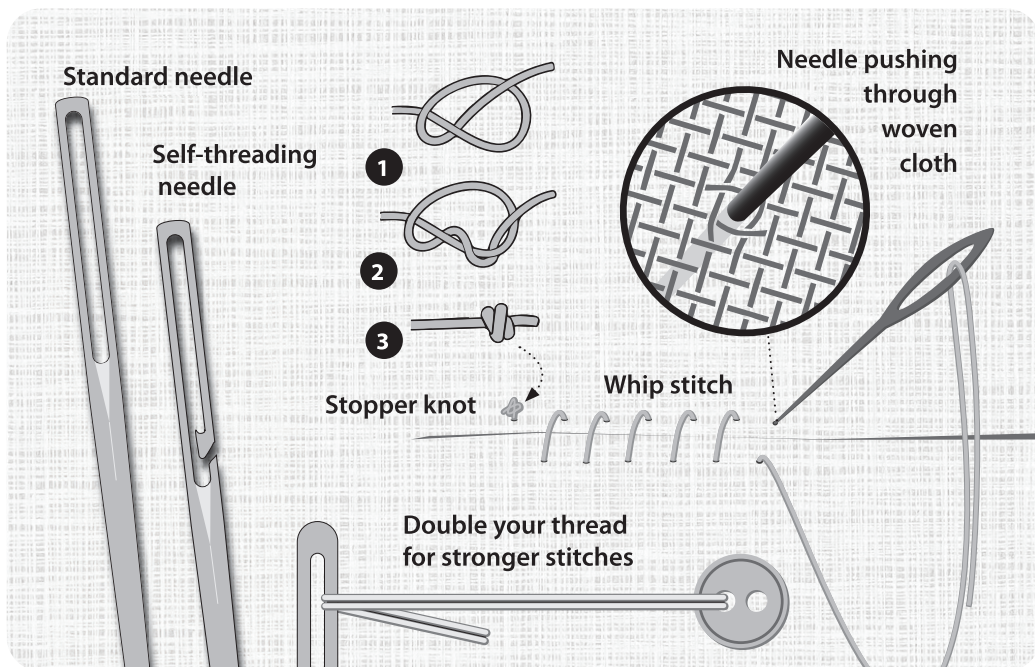
Knowing how to sew can open a world of cool projects. People have always liked to make new things by shaping materials and putting them together. Just like woodworking or building models, sewing lets you bring your ideas to life using color, shape, and depth to create a unique, usable item. You could decide to make clothes that suit you better than those you can buy, make a fun banner for your bedroom, embroider a design onto something, or even make a piece of art for exhibition.

Sewing can also be useful in smaller, everyday ways. Knowing how to sew by hand or with a machine means you can add your own patch on your scout uniform, repair a tent or backpack when camping, or patch a favorite jacket to keep it wearable a while longer.

The Basics

Every scout should know the basics of sewing, whether you plan to earn the Tailor special proficiency badge or just be able to handle basic repairs.

You probably already know that sewing involves using a needle and thread.



A needle, like a pin, has a sharp end that you can use to push through fabric. However, unlike a pin, a needle has a hole in the head called an “eye” that you can put a thread through. Needles can be thicker or thinner, longer, or shorter depending on the type of fabric they’re meant to work with. For miscellaneous sewing projects, you’ll probably use either sharps or maybe self-threading needles. Sharps are the most common types.

You may have noticed that although fabric looks solid most of the time, when you examine it closely it’s made up of different threads that are woven together by the way they loop around each other. This is easy to see in a big sweater made with thick woolen yarn. But the same is true for cotton cloth, like your favorite T-shirt.

What you’re trying to do, when sewing, is to push a couple of the threads apart with the sharp end of the needle so you can pull your sewing thread through without cutting any of the threads already there. You don’t want to break these threads if you can at all avoid it—the number and length of the threads both hold the cloth together and give it the strength to do its job.

Threads can be made of different fibers with different thicknesses and strengths and, of course, different colors. For most minor repair jobs, an “all purpose” thread will work.

If you’re putting together an emergency sewing kit, have a small amount of all-purpose thread in brown, black, your favorite color, and whatever color goes best with the clothes you like to wear.

Some people like to match the thread to what they’re sewing to make it invisible; others like to use the thread as a bold decorative color. Stitching can look cool and unique when you’ve practiced a bit and can control how your stitches look.

Threading the needle is when you put an end of the thread through the eye of the needle so that the needle can pull the thread along with it. First, cut a length of thread that you think is long enough for the sewing you want to do, plus a generous bit of extra, because it’s a pain to run out of thread mid-project. If you’re going to use your thread *doubled* so you have two strands of thread for every stitch, then take twice as much. It’s not generally necessary to double the thread, but it makes the stitches stronger, so may be especially useful for mending a hole where there might be pressure on the seam.

Needle Tip

When choosing a needle for your project, choose a size small enough to push through the fabric without stretching the fabric, but strong enough not to bend.



To thread your needle, hold close to one end of the thread so it stays straight and perpendicular to the ground. It might help to wet your forefinger and thumb and run them along the end of the thread to help it stay straight. Then, push the eye of the needle onto the thread. This usually takes a few tries for beginners. If using a self-threading needle, there's a hole in the top of the eye, so you can just pull the thread down into the eye, or there are needle-threading tools available. Once your needle is threaded, if you decide to double the thread, pull the needle to the center of your cut thread, and pull the other two ends together so that when you push the needle through the cloth it pulls both halves together.

If you were to start sewing now without taking care of the end of the thread, you would end up pulling the thread straight through the cloth you're trying to sew. There wouldn't be anything to hold your stitches in place! So, knot the end of your thread to make it thicker than the weave of the fabric. When you pull the thread through, this knot will catch on the cloth and give you something to pull against to make nice, tight stitches while holding the thread in place.

If your family has a sewing machine, learn how to use it. You can use it to make bigger projects, or just get things done faster. Scouts sometimes patch camping gear, repair clothing, make creative patrol flags, or even sew their own backpacks.

Caregiving

Scouts know how to be prepared for any situation. Sometimes, that means being ready to act in an emergency, and sometimes that means doing the things that need to be done consistently over a longer period of time.

When someone who lives with you is sick or unable to fully take care of themselves, you can do your daily good turn right at home. You're already learning many of the skills you need through first aid (Chapter 12), but caregiving is more about paying attention to understand someone's needs, doing real things to help them, and doing so with empathy.

Have a Great Attitude

The best place to start, if you're going to help someone else, is to come in with a cheerful attitude: "A scout smiles and whistles under all difficulties."

Bring a smile, do what's asked of you cheerfully, and—maybe most importantly—try to really see the person you're helping. Are they holding their bodies in a way that shows they're in pain, or avoiding pain? Do they need someone to listen to them talk about how they're feeling? How can you let them know that you care about how they're doing, and want to help them be as comfortable as possible?

Understand What's Needed

Whether you're caring for small children, a sick sibling, or someone older who needs help, pay close attention to what the adult in charge tells you is needed.

For childcare, this might include information about allergies or other special care needs, a parents' phone number, the address where you are, or who to call in an emergency. For other care needs, they may share instructions on food to prepare, how to handle a task like helping get a bath ready or physically helping someone who can't safely perform certain actions.

It's always a good idea to write down any instructions you've received and repeat them back so that you both are sure you've understood what's needed.

Share How It Went

After your time to help is over, go back to the adult in charge and let them know what happened. Review the things they asked you to do, how it went, and anything they might want to know. Did the baby refuse to eat? Did someone in your care

Know When to Get Help

Sometimes, it's just not possible to prepare for everything. A situation may come up that is beyond what you're capable of handling by yourself. For example, if an elderly member of your household falls, and you're not strong enough to help them get up safely, what will you do?

Whenever you're going to be the primary person responsible for taking care of another person, give a little thought, perhaps with the help of the adult in charge, to what might go wrong. Then, figure out how you can get help when something comes up, either a problem that you foresaw or something unexpected. Have a list ready of who can help, and how to get in touch with them. Most importantly, pay attention to how you're feeling in a situation. If you feel overwhelmed and like you don't know what to do, you should probably be getting someone to help. It's always good, when caregiving, to have the number of a trusted adult in hand—if you feel uncertain, it's a great idea to call them to get their take on the situation.



not get their medicine? Did you decide to go out to the park, or watch something on TV together?

Caring for a Small Child

Babies and children under a year old require special care. Before taking care of such a young child, you'll want to either get an adult to teach you how to do some of the basics, like how to hold and feed a baby, or take a class from a local community organization. It's often best if you start by helping while one of the child's parents is with you, so they can help teach you what their baby likes and needs, and you can get enough experience in caring for the baby to make sure you can do so safely.

Crying

When a baby wants something, because they can't talk yet they only have a few ways to let you know. They can look at the thing they want or try to reach for it. If those don't work, or if they're uncomfortable, then they'll cry.

A good place to start when taking care of a crying baby is to ask yourself some basic questions: Have they had enough sleep (are they tired)? Have they had enough to eat (are they hungry)? Does their diaper need to be changed (are they clean, dry, and dressed comfortably for the temperature)?

Once you're sure these basics are taken care of, try comforting the baby. Many babies like to be held and rocked gently or to have someone walk around with them. Some like to be swaddled in a blanket. Ask the parent ahead of time since they'll know best how to soothe their child.

Feeding

When you're taking care of an infant, eventually you'll be feeding the baby. Most often, the baby will take a bottle, or maybe some pureed food. Infants under three months generally lack good head control and will need to be held in a way that supports their head and body. While giving them a bottle be sure that their head and back are supported and that their head is higher than their stomach. All humans digest food better if they let gravity help the food work its way down to the stomach. Cradling an infant in your arms and against your body to feed them is easier to do while you are seated.

Be sure the bottle is at the right temperature, not too hot, and if you must mix formula, be sure to follow the directions on the package. What's too hot? Test the temperature of the bottle's contents by squirting a bit on your inner arm. If it's uncomfortably warm for you, it's too hot for the baby.

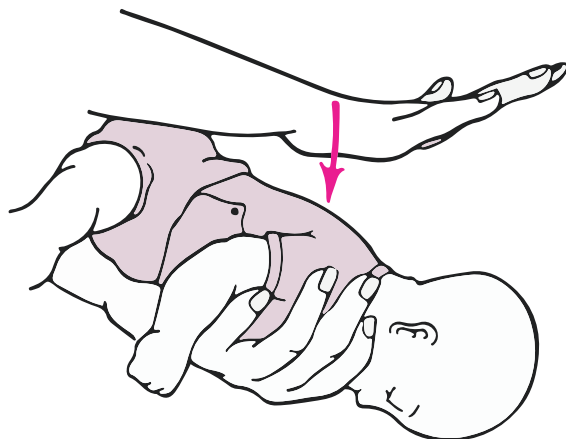
Babies this age often need help burping. Once the baby has ingested about two ounces of milk, try to burp them. First put a burp cloth on your shoulder. Lift baby to your shoulder, so their head is above your shoulder and their body against yours. Gently pat baby's back to encourage air to come up and out. Sometimes, the baby will also spit up. Any time the baby becomes fussy during or soon after feeding, try burping them. Once the baby has burped, you can resume feeding them the rest of the bottle. Burp again when they are finished eating.

As babies grow, they are better able to hold their head up and to help hold their bottle. The typical six month old may push against you to get into the position they prefer to eat in, whether that is laying down or sitting up. Take your cues from the baby and allow them to hold their bottle if they can, or help you hold it. They may not yet be strong enough to hold themselves up while holding a bottle, so don't let go. Babies who look steady can topple over when they become tired.

Babies who are ready to eat solid food are also able to sit up and are easiest to feed in a highchair. If you use a spoon to feed an infant, be sure you are giving only foods they have had before. Babies can choke on small lumps of even soft foods if they haven't learned to chew them up yet. Many parents start solid foods slowly so they can watch for food allergies. This means that even if baby could eat ice cream, their caregiver might not want them to. Stick only to approved foods.

Be sure to offer only small bites on the spoon so baby can swallow the food before the next bite and not choke. Offering a sippy cup of water between bites can also help the baby swallow and digest their food. Babies who are 9–12 months old, may be ready to feed themselves. It is important that you stay close by and watch them when eating, so that you can help them if they start to choke.

If the baby starts to choke, first use your finger to sweep their mouth and remove food. Sometimes baby has just put too much in their mouth. If that doesn't work, remove baby from the



Back Blows—Infant¹

¹ From the MSD Manual Professional Version (Known as the Merck Manual in the U.S. and Canada and the MSD Manual in the rest of the world), edited by Sandy Falk. Copyright ©2023 Merck & Co., Inc., Rahway, NJ, USA and its affiliates. All rights reserved. Available at <https://www.msdmanuals.com/professional>. Accessed September 13, 2023.

highchair and position them so their head is face down in your hand and body on your forearm, with their face lower than their stomach. This allows gravity to help baby spit out the food. Pat baby firmly on the back and sweep their mouth again. This will usually dislodge the food.

Getting Trained

While not all families expect babysitters to be formally trained, it can be a good idea if you expect to do it often. Many babysitting certification programs will expect you to know what to do in an emergency and be able to perform basic first aid, in addition to keeping the children fed and busy.

The Child Care special proficiency badge is a great place to start, and if you can earn your First Aid and Homemaker badges you can be confident in your skills. If your troop doesn't have a teacher for those badges, try finding a class. You can use the Internet to learn where national organizations such as the Red Cross or YMCA offer babysitting courses nearby or online or ask at your local community center.

As you've seen, there are many ways you can use the principles of scouting—helping others, being useful, being thrifty and a friend to all—indoors, often while getting to express your own creativity. There are many others beyond what's been discussed here and exploring them can be a lifelong pleasure.

End of Chapter Reflection Questions

- Why is helping out at home an important part of being a scout?
- What are some ways you can help out at home?
- What are three things you would make if you had the skills? Where might you be able to learn?



8

HEALTH AND WELL-BEING

General Rules for Health

Being a good Pathfinder is one of the ways you can become the best version of yourself. To get the most out of it—and out of everything in life—you have to take care of yourself. No one is at their best when they are hungry, tired, or emotionally worn out. Self-care can mean many things to many people, but there are some basic things we all need to do.

1. Eat a balanced diet, including plenty of fresh fruits and vegetables.
2. Drink plenty of water.
3. Get 7–10 hours of sleep every night.
4. Find ways to exercise in the fresh air regularly.
5. Keep your body, clothing, and gear clean.
6. Spend time building and enjoying healthy relationships with friends and loved ones.
7. Pay attention to what your emotions, mind, and body are telling you.
8. Strive for balance in all aspects of your life.



1a

Eating, Sleeping, and H₂O

All humans need to eat, sleep, and stay hydrated. We take water bottles on hikes so that we don't become dehydrated, but you can also become dehydrated at home. Do you drink water every day? Drinking water helps keep your internal organs clean by washing away the toxins that build up as byproducts of being alive. Your body needs at least 6–8 cups per day and will require extra if you are exercising or out in hot weather. Being hydrated helps you feel your best.



MyPlate

You can read more about healthy eating on the USDA website, **MyPlate**. It explains how to build healthy meals, offers recipes, and suggests ways to help your whole family eat a balanced diet. You can read more at: <https://www.myplate.gov>

Food choices can be intensely personal, as what we will and won't eat can be affected by our culture, family, religion, morals, and taste. We honor those part of ourselves while still ensuring our bodies have what they need to be at our best. Healthy foods give us what we need to have energy, grow, heal and be mentally fit. Eating plenty of fruits and vegetables ensures that you are getting the wide variety of nutrients

needed for a healthy immune system. Eating foods with protein, like eggs, meat, and beans, helps you build muscles needed for adventures like hiking and backpacking. Whole grains provide energy to keep going and be active.

Make it your goal to eat foods from each of these categories every day. You can try to have each category at every meal, but many people find it easier to balance the day rather than each meal. Try to skip foods with a lot of sugar, as those can give you a short term burst of energy, but ultimately leave you drained because they lack the vitamins and minerals your body really needs.

Sleep is when our batteries reset as humans. While we sleep, our bodies do important work like regulating hormones, activating our immune systems, and allowing bones and muscles to grow. As a teenager, you need at least 8–10 hours of sleep each night for your body to reset. You may even need extra if you are growing, sick, or healing from an injury. Sleep deprivation makes you feel tired, cranky, and mentally sluggish. When you haven't slept enough, you'll tend to reach for high-sugar, low-nutrient foods that give you quick bursts of energy but leave you more depleted. So, make sure you make time to sleep.

The biorhythms of a teenager may make it hard to fall asleep at night and to get up in the morning. If you can go to bed later and get up later in the morning, you may feel better. If you cannot, because you must be up early for school, be sure to at least lay down in bed for eight hours to rest, even if you can't sleep. Your body will benefit from the rest, even if you aren't asleep.

Cleanliness

“A scout is clean in thought, word and deed” is part of our Scout Law. While no one else knows for sure what you are thinking, they can certainly tell if you are physically clean. Keeping your body and your living space clean is important for good health. Wash your face daily and shower or bathe using soap at least every other day. If your hair is prone to tangling, use a conditioner. Brush your teeth using toothpaste twice a day and use floss once a day. These steps will reduce cavities, help you create good oral hygiene habits, and give you good breath.

Since we are talking about smelling, most of you are now in the age range where you need some deodorant. Deodorant reduces the smell of body odor and is generally worn in the armpits daily. Wash it off at night and apply a fresh coat each morning, or after showering. Different soaps, shampoos and toothpastes work better for different people, so shop around until you find one that works for you. You should also wash your hands many times per day with soap, both after you go to the bathroom and before you eat or prepare food, to kill germs and prevent illness.

Keeping your gear, clothes and room clean also gets rid of germs and dirt that can cause disease or infection. Most people are allergic to mold and mildew, so it is important that we store our scouting and exercise clothes, gear, and shoes in a clean and dry way. Wearing fresh socks and underwear every day is also good basic practice. Now, we might not be able to see your socks inside your shoes, but we don't want to smell them either. Also: don't leave food or drinks out to mold or rot in your room. That's gross and can create airborne spores that will leave you and others feeling yucky.

Exercise

Your body has nerves, muscles and bones that need to move every day to maintain their function and help your brain stay alert. You are like a machine that will rust from lack of use, meaning muscles can atrophy and weaken if you don't use them. When you lack core strength, it can be hard to sit up, sit still or even focus on anything, including schoolwork or video games. To keep your body strong, you need to do physical things every day. Try for at least 20–30 minutes of exercise that increases your heart rate.

For most people, the easiest way to stay active is to go for walks. Walking with a friend or family member creates a time for conversation and to trade thoughts away from the distractions of home or school. You can also use walks to pick up litter, or to spot local animals or plants. Take a camera and take pictures of your favorites. Another benefit of walking daily is that you'll be stronger for hiking and backpacking with your patrol, which will make scouting more fun.

Swimming, bike riding, dancing, or playing on sports teams are also great ways to get a workout. The key is to find what you enjoy and do it often. If you want to be very fit, it is best to rotate through many different exercises, so you don't create an overuse injury. Every activity uses different muscles. The more different muscles you work each week, the fitter you become.

Exercise can also be calming and a way to de-stress. Yoga can help you become stronger and more flexible: it lets you focus on your own body, without competition. All people can participate in some form of yoga, as it's adaptable to everyone's abilities. To get started, you'll need a mat, some space and a video or book to show you what to do. Yoga has the added benefits of increasing your balance, focus, and body awareness, which can literally help you with anything else you do.

There are hundreds of free yoga videos available online, but in-person classes are beneficial, particularly at first, as instructors will help you get your form correct. And like scouting, yoga is a practice, and you'll show improvement with effort.

Swimming

The Benefits of Swimming

If you are able to swim, it is a great way to strengthen your body. It exercises muscles without the risk of bumps, bruises, or strains. It washes away poisons thrown out through the pores of the skin. Swimming can help develop self-reliance, willpower, courage, the willingness, and ability to help other people.

Every scout who can should learn to swim, because

1. Swimming is splendid recreation.
2. Swimming is a great form of exercise.
3. It is every Scout's duty to "Be Prepared" to save life.



1

The First Class Swimming Test

This is not a speed test. No time limit is fixed within which the fifty yards must be covered. You may use any stroke desired, and may change stroke during the test, so long as your feet do not touch bottom. You should finish the distance with

plenty of reserve strength, such as you would need should he swim that distance in order to aid some person in distress.

Where the test is taken in a swimming pool or tank the length of the tank must be measured carefully, and you must swim as many times its length as will equal fifty yards. In doing so, you must not touch the sides or bottom of the pool. You may dive at the start.

Every effort should be made to qualify with the swimming test, not only for your own benefit and safety, but so you may be ready to rescue others from drowning.

Swimming With Clothes On

Many excellent swimmers have lost their lives through suddenly finding themselves in the water fully dressed and becoming excited because of the weight and the binding of their wet garments. Therefore, although it is not required to pass the swim test, every scout who can should learn to swim with clothes on.

Like swimming in all other conditions, it is merely a matter of *keeping calm*. If you are wearing a coat, use the breaststroke. Bubbles of air will work into the shoulders of the coat and add to your buoyancy.

Swim Cautions



- For growing scouts, while the brief “morning dip” is a great joy, prolonged swimming before breakfast is not recommended.
- Never enter the water directly after a meal; wait at least an hour to avoid cramps.
- Never enter the water when fatigued.
- In case of cramp, keep calm, turn on the back, and rub and stretch the affected limb. If seized in the leg, turn up the toes, straighten the limb and stretch the muscles, and rub, or kick the surface of the water until relieved.
- In unknown water, beware of holes, weeds, and swift currents, eddies or undertows.
- Don’t call “Help!” unless you really need it.

Safe Swim Defense

The following guidelines are “defenses” for providing a safe swimming experience on scout outings. These are adopted from the OSG water activities policies, and are a good set of recommended practices by EACH local unit. The Safe Swim Defense consists of eight points to be covered in any swimming situation.

Scouts and leaders may refer to the OSG Safe Swim Defense Guidelines for the complete Safe Swim Defense Policy.

1. Qualified Supervision

All swimming activity must be supervised by a mature and conscientious adult, age 21 or older, who understands and knowingly accepts responsibility for the wellbeing and safety of youth members in his or her care, who is experienced in the water and confident of his or her ability to respond in the event of an emergency, and who is trained in and committed to compliance with the eight points of Safe Swim Defense.

2. Physical Fitness

Provide evidence of fitness for swimming activity with a complete health history from physician, parent, or legal guardian. The adult supervisor should adjust all supervision, discipline, and protection to anticipate any potential risks associated with individual health conditions. In the event of any significant health conditions, an examination by a physician should be required by the adult supervisor.

Those with physical disabilities can enjoy and benefit from aquatics if the disabilities are known and necessary precautions are taken.

3. Safe Area

When swimming in areas not regularly maintained and used for swimming activity, have lifeguards and swimmers systematically examine the bottom of the swimming area to determine varying depths, currents, deep holes, rocks, and stumps. Mark off the area for three groups: not more than three and a half feet deep for non-swimmers; from shallow water to just over the head for beginners; deep water not over 12 feet for swimmers.

A participant should not be permitted to swim in an area where they cannot readily recover and maintain footing or cannot maintain their position on the water, because of swimming ability or water flow. When setting up a safe swimming area in natural waters, use poles stuck in the bottom, or plastic bottles, balloons, or sticks attached to rock anchors with twine for boundary markers. Enclose non-swimmer and beginner areas with buoy lines (twine and floats) between markers. Mark the outer bounds of the swimmer's area with floats. Be sure that clear water depth is at least seven feet before allowing anyone to dive into the water. Diving is prohibited from any height more than 40 inches above the water surface; feet-first entry is prohibited from more than 60 inches above the water. For any entry from more than 18 inches above the water surface, clear water depth must be 10 to 12 feet.

Only surface swimming is permitted in turbid water.

Swimming is not permitted in water more than 12 feet deep, in turbid water where poor visibility and depth would interfere with emergency recognition or prompt rescue, or in whitewater, unless all participants wear appropriate personal flotation devices, and the supervisor determines that swimming with personal flotation equipment is safe under the circumstances.

4. Lifeguards on Duty

Every swimming activity must be closely and continuously monitored by a trained rescue team on the alert for, and ready to respond, during emergencies.

Professionally trained lifeguards satisfy this need when provided by a regulated facility or tour operator. When lifeguards are not provided, the adult supervisor must assign at least two rescue personnel, with additional numbers to maintain a ratio to participants of 1:10. The supervisor must provide instruction and rescue equipment and assign areas of responsibility as outlined in Point #3 on Safe Areas. The qualified supervisor, the designated response personnel, and the lookout work together as a safety team. An emergency action plan should be formulated and shared with participants as appropriate.

5. Lookout

Station a lookout on the shore where it is possible to see and hear everything in all areas. The lookout may be the adult in charge and may give the buddy signals.

6. Ability Groups

Divide into three ability groups: non-swimmers, beginners, and swimmers. Keep each group separated. Non-swimmers have not passed a swimming test.

Beginner Swim Test

Beginners must pass this test: jump feet first into water over the head in depth, level off, swim 25 feet on the surface. Stop, turn sharply, resume swimming as before and return to the starting place.

Swimmers Swim Test

Swimmers must pass this test: jump feet first into water over the head in depth. Level off and swim 75 yards in a strong manner using one or more of the following strokes: sidestroke, breaststroke, trudgen, or crawl; then swim 25 yards using an easy resting backstroke. The 100 yards must be completed in one swim without stops and must include at least one sharp turn. After completing the swim, rest by floating.

These classification tests should be renewed annually, preferably at the beginning of the season.

7. Buddy System

Pair every youth with another in the same ability group. Buddies check in and out of the swimming area together. Emphasize that each buddy lifeguards his buddy. Check everyone in the water about every 10 minutes, or as needed to keep the buddies together. The adult in charge signals for a buddy check with a single blast of a whistle or ring of a bell, and call “Buddies!” The adult counts slowly to 10 while buddies join and raise hands and remain still and silent. Guards check all areas, count the pairs, and compare the total with the number known to be in the water. Signal two blasts or bells to resume swimming. Signal three blasts or bells for checkout.

8. Discipline

Be sure everyone understands and agrees that swimming is allowed only with proper supervision and use of the complete Safe Swim Defense. The applicable rules should be presented and learned prior to the outing and should be reviewed for all participants at the water’s edge just before the swimming activity begins. Scouts should respect and follow all directions and rules of the adult supervisor. When people know the reason for rules and procedures, they are more likely to follow them. Be strict and fair, showing no favoritism.

Friends and Relationships

Let’s talk about friendships—those amazing bonds that make life sweeter. Having healthy friendships is super important because they bring so much goodness into our lives. Good friends offer support, laughter, and a shoulder to lean on when things get tough. They make us feel like we belong, accepting us for who we are. Through friendships, we learn about trust, respect, and the art of compromise. They remind us that we’re not alone in this world; we’ve got our people, those who appreciate and celebrate what makes us unique. So, let’s cherish and nourish our friendships—they’re the threads that weave a beautiful tapestry in our lives.

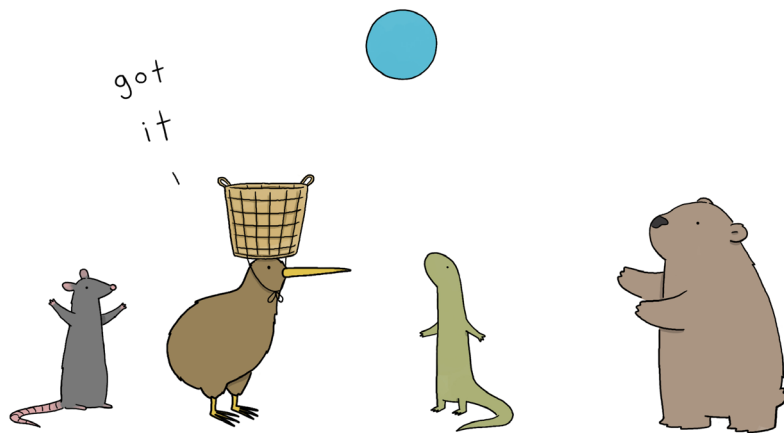
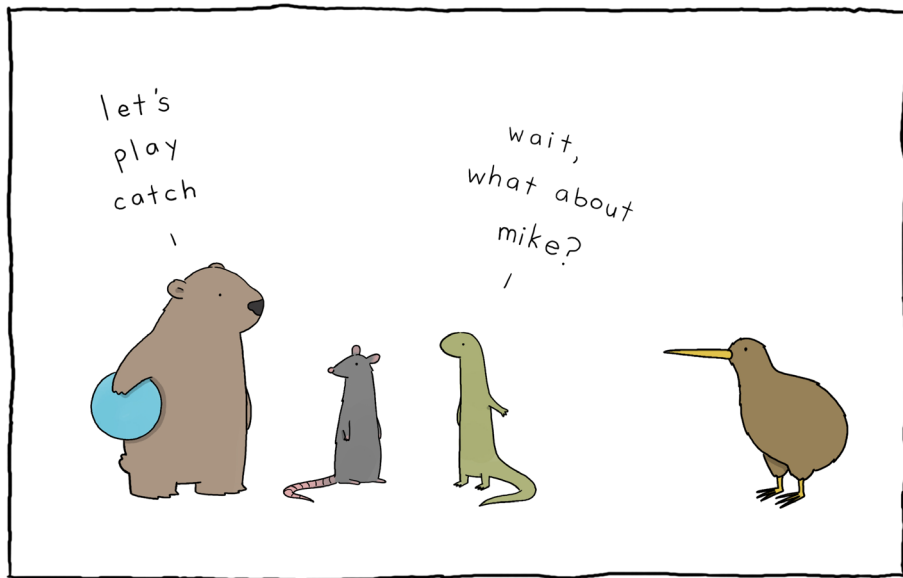
Knowing who you can rely on as a good friend is important. There are a few signs that can help you figure it out. First off, mutual respect is key. A good friend respects your thoughts, feelings, and personal boundaries, just like you do for them.

No judgment, just a whole lot of understanding. Another thing is open communication. In a healthy friendship, you can share your thoughts and concerns without fear. It's a safe space to be yourself. Healthy friends also support your growth and cheer you on. They're your biggest fans, celebrating your victories and offering a hand when things get bumpy. And let's not forget trust—it's the foundation. With a good friend, you know your secrets are safe, and they've got your back. No matter how well you get along, sometimes you'll disagree. Good friends look for ways to figure things out peacefully. Keep an eye out for these signs and surround yourself with friendships that bring out the best in you, remember to BE a good friend, and you'll find your life a whole lot brighter.

For many, the best part of scouts is having friends with which to do things, but friendships can at times be tricky. Some people are just easier to get along with than others. On rare occasions, friends can even turn into bullies or friendships can be strained for many reasons. Being a good friend means listening, caring, and helping others. While it's important to do those things to be a good friend, it's also important to expect those things from your friends. Good communication means that you both get to listen and to talk. A friendship should never be one-sided, and friendships do evolve. You may not always be as close with all your friends as you are today, but being a good friend means that you may continue to develop new friendships.

Sometimes friends hold hands, hug, or do favors for each other. When you give your consent to do something, that means you are agreeing to it. In a healthy friendship, you can always say no to anything that you aren't comfortable with, and your friends can also say no to you. It's important to give other people the ability to give their consent or not about any activity, and also essential to let ourselves and other people change their minds. For example, someone can agree to play tag with you, but they get to quit when they get winded and need to sit down. You might offer to help your friend with their math homework, but when you have to stop so you can get your own work done, they should understand and not become angry. For things like sharing hugs or holding hands, neither you nor others need a reason to decide you aren't comfortable doing that.

Sometimes friendships change, and that is common. People who have been friends for a while may decide to start dating, which will change their relationship. Sometimes a friend becomes more distant if they start a new activity where they make new friends that you aren't friends with. If your best friend joins the school basketball team, and now is friends with their teammates and attends lots of practices and games, it can feel like they no longer have time for you. If you used to hang out after school, and they now have practice after school, you may have to find new times to hang out or different things to do together. Even great friend-



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ships can have tricky things to navigate as you both grow. You can still be friends, even if you each have other friends or even if one of you moves away.

Friendships are one kind of relationship. There are different types of relationships, depending on whom you're interacting with. Whether you're talking to classmates, parents, siblings, dates, or patrol members, show respect to all people by listening to them and not interrupting. This is the most basic part of any relationship:

Listening to others and trying to understand what they are saying to you, even if you don't like it. You should also expect that other people in your life respect and listen to you. If you have a relationship that is leaving you hurt, whether emotionally, physically, or mentally you may need to end that relationship or establish new boundaries. Sometimes the best thing you can do for yourself is simply to stop being around someone who is toxic for you. If your friend is no longer acting like a friend and is bullying you, or trying to pressure you into doing things you don't want to do, it may be time to end that friendship. On the other hand, if your friend is engaging in risky behaviors, such as not eating, trying drugs, drinking, or harming themselves or others, you should talk to a trusted adult who can get them help.

If you are not sure how to deal with a difficult relationship, find a trusted adult to help you. You do not need to deal with a difficult situation alone. A parent, guidance counselor or a scout leader can help you navigate a difficult situation and decide what do. Role playing, brainstorming and problem solving with a friend or trusted adult are ways to handle any situation that can help.

For some people, finding a trusted adult is easy, but that isn't true for everyone. If you have had your trust broken in the past, you may wonder how to identify a trusted adult. It isn't easy, but there are some ways you can tell if someone deserves your trust.

A trustworthy adult will respect you and your boundaries. They won't push you to open up or do things you aren't comfortable with, even if it is just talking. They will be non-judgmental. This means they won't judge you based on your appearance, your past choices, your experiences, or your beliefs. They are open to the fact that your life and choices are not their own, and show you respect even when you disagree with them. They will demonstrate that they are trustworthy by keeping things you tell them to themselves and not sharing your personal information with others unless you or someone else is in danger.

Developing trust with someone takes time, as trust must be built between two people, but finding someone you can feel vulnerable with and know that they won't take advantage of you is important. A trustworthy adult should also be helpful and willing to help you find ways to work through challenges you are experiencing. And they should be thoughtful. They should consider what you say carefully and not jump to conclusions or cross your boundaries. If they know you don't like to be touched, they will provide emotional support in other ways, such as offering a snack or handing you tissues when you need them. Their support should be offered consistently in a way that makes you comfortable.

While choosing a trusted adult can take time, trust your gut. Listen to your instincts. If an adult makes you feel uncomfortable, then they are not a good choice to use when you need a trusted adult. Think about how this adult has responded to you in the past and use that to help you determine if they are trustworthy.

Adjustments

The years between the ages of 11 to 18 can be one of the most fun—but also the most complicated and confusing—stages in life. We are all getting to know ourselves and figuring out who we are, but at the same time we keep changing. You'll be answering the question, "Who am I?" for the rest of your life, but figuring it out can feel monumental just now.

During this time, you are going through puberty. Puberty is when your body and brain mature so that you become more like an adult and less like a child. This process can be difficult for anyone. Growth spurts and physical changes occur at inconvenient times. Remember that your peers are going through this awkward process, too. Everyone goes through puberty at their own rate, which may be faster or slower than other people's. Again, if you are anxious or confused, talk to a trusted adult. Asking questions is always the best way to get answers.

It can be confusing if a friend announces one day that they no longer like soccer, dresses, or singing. Like you, they're evolving, figuring out who they are. While they may start to like singing again once their voice finishes changing, they may never want to play soccer again.


Sometimes, getting to know yourself means realizing what you are and aren't attracted to, and how you want to present yourself to the world. These are big questions asked by people your age and you may be asking them too. The most important thing to remember is to be kind to yourself and everyone else.

You may wonder if you are straight or what your sexual orientation is. Your friends may be asking the same questions. It's important to remember that there are no rules for figuring this out. You are allowed to change your mind! You get to say who you are today, even if that isn't the person you were last week. The key is simply accepting that you and your friends are all on this journey into adulthood together. You are important and valuable, and you won't be a teenager forever. Life

does get easier, and what is important is to treat each other with respect as you figure it all out. There are no wrong answers here, except choosing to be unkind.

In OSG, many scouts wear the Inclusive Scouting Campaign badge that is a rainbow of colors behind an arrow. We wear these to remind everyone that we are welcoming to our LGBTQ+ friends and members. Your OSG patrol should be a safe place to be yourself, even if you are still figuring out who that is. If your group does not wear that badge and you would like for them to, talk to your scout leader about ordering them from the OSG Quartermaster store.

LGBTQ+ Support



If you or your friends are LGBTQ+ (lesbian, gay, bisexual, trans, queer and/or questioning), you may need some extra support. While talking to a trusted adult can be helpful, you can find support online from **The Trevor Project** (<https://www.thetrevorproject.org>), which offers both information as well as live counselors via chat. It is also fine to seek support even if you are not sure what your orientation is or if you just have questions.

Balance

Finding balance in life is a good way to find both happiness and health. We all need to create times to play and times to work hard, time to rest and time to focus. Taking care of ourselves means understanding the difference between wants and needs.

What do you do to feel better and more balanced when having a stressful day? Do you read? Create art? Go for a run or talk to a friend? What about if you have a big test coming up soon? Then, it's probably smart to plan extra study time and catch up with your friends on the weekend. Different days may mean different choices. Taking care of your mental health by making time for those things is important. Also, you don't need to feel like you have to handle all of your problems alone. If things get overwhelming, talk to your parents, a favorite teacher, or school counselor to get more help and support.

Hunger can lead to not feeling like yourself. Many people feeling “hangry” when



Wants vs. Needs

What is the difference between what you want and what you need? Which should come first? Use the examples to fill in the list. Then add your own.

Examples:	WANT	NEED
Water		
Electricity		
Shoes		
Candy		
Smartphone		
Glasses		
House		

they don't eat. That is when feeling hunger makes you feel angry for no reason, but being hunger can cause all kinds of negative feelings. A healthy snack or meal can often lift our mood, decreasing anxiety, depression, anger, and other negative feelings. Always keep a snack handy to eat if you are starting to feel upset without a good cause.

Anger is a feeling we experience for many reasons, and it can make our entire day go badly. If you are feeling angry with a friend, family member, or situation, take time to check in with yourself. Do you need to talk to your trusted adult? Do you need to confront someone about their behavior? Or do you just need to take a break and acknowledge your feelings? Writing, drawing, or talking about your feelings can help you process your anger without doing something destructive. It is important to find ways to process your anger without harming yourself or others.


Loneliness can be experienced even when you are surrounded by people. As humans, we need connections to other people to be happy. If you realize you are feeling badly because you are lonely, take some time to reach out to a friend or family

member. Suggest playing a game together, hanging out or doing something you both enjoy. We all feel lonely sometimes, so it is nothing to be embarrassed about.

As a teenager, you may find that being tired sneaks up on you. School work, chores, and extracurricular activities can leave you feeling tired even if you get enough sleep at night. If you realize you are feeling tired or drained, give yourself time to rest. Some people find they can take quick short naps to recharge, and others find the best way to recharge is spending some time outside. Find what works for you.

Using HALT to recognize the root feeling when you feel bad can help you feel better faster. Once you know what is wrong, you can take steps to deal with it. By dealing with your feelings, you will be able to make better decisions and take better care of yourself.

HALT



One way to check in with yourself when you don't feel good is to use HALT. HALT stands for **Hunger, Anger, Loneliness** and **Tiredness**. Each of those feelings can make us feel unbalanced or unhappy. They can also lead us to make bad decisions because we are feeling bad. Are any of them maybe causing some of what you're feeling?

End of Chapter Reflection Questions

- What do you do to stay healthy emotionally and physically? What's one thing you could change or do better?
- How do you recharge when life is stressful?
- How do you encourage your friends to be their best selves? How do they encourage you?
- Can you name one or two trusted adults you can go to with a question or for help?



9

SCOUTING AND NATURE

Nature Study and Conservation: Why Learn About Nature?

Well, first of all, nature is incredibly cool! Being able to move quietly and safely in nature will let you see animals that you otherwise wouldn't. And being able to identify the plants around you gives you a deeper connection to the earth we all live on and may even be able to provide safe food sources (plus, those wild huckleberries are delicious). Humans are part of the ecosystem, and as scouts and humans we want to do our part by respecting the environment, our place in it, and enjoying it at the same time.

Nature study can mean being able to use the stars to know which direction you're facing, being able to find edible plants, and seeing animals that you wouldn't have otherwise noticed. It can mean understanding what is going on with the geology in an area or recognizing the signs that a thunderstorm is approaching.

Studying nature gives you a respect for the Earth and our place in it, and it will give you confidence about being in the outdoors as well.



What is Nature?

Nature is simply the physical world around us: plants, animals, trees, and more—those things that belong to the Earth and weren't created by human hands or ideals. Nature is as close to us as the grassy space outside our front doors, or as far away as the mountains, oceans, our national parks—or even the moon!

What is Wilderness?

Wilderness is the place where humans go to visit, but do not expect to remain. It is the place where the wild lives: the home of ancient trees, splendid creatures, timeless stones, savage weather, and churning whitewater. It's where we learn respect for the power of nature and experience wonders beyond imagination, where we can open ourselves to intense, new experiences, and challenge our strength, stamina, and powers of observation.

As scouts, we experience nature every day, learning its ways and its secrets. If we're lucky, we take this knowledge with us into the wilderness, where we have a chance to not only experience the land for ourselves but preserve it for others.

Ethics and the Outdoor Code

If you want to remember a single guideline for how to behave in the natural world, it's this: "Leave No Trace," just as Chapter 3 describes.

Social media has given rise to some outdoor trends that should be avoided, because they alter or damage the natural landscape. It's dangerous to go off trail to get the perfect photo to display on social media. Don't stack rocks or stones into "cairns" unless you are doing it in the right place, as part of a trail marking system. And don't bring painted rocks into natural areas and leave them for others to find. They're not natural items and don't belong there. If you painted a rock in the wilds, pick it up, carry it back into the city, and leave it on a sidewalk or park bench for someone to find.

Observing Nature

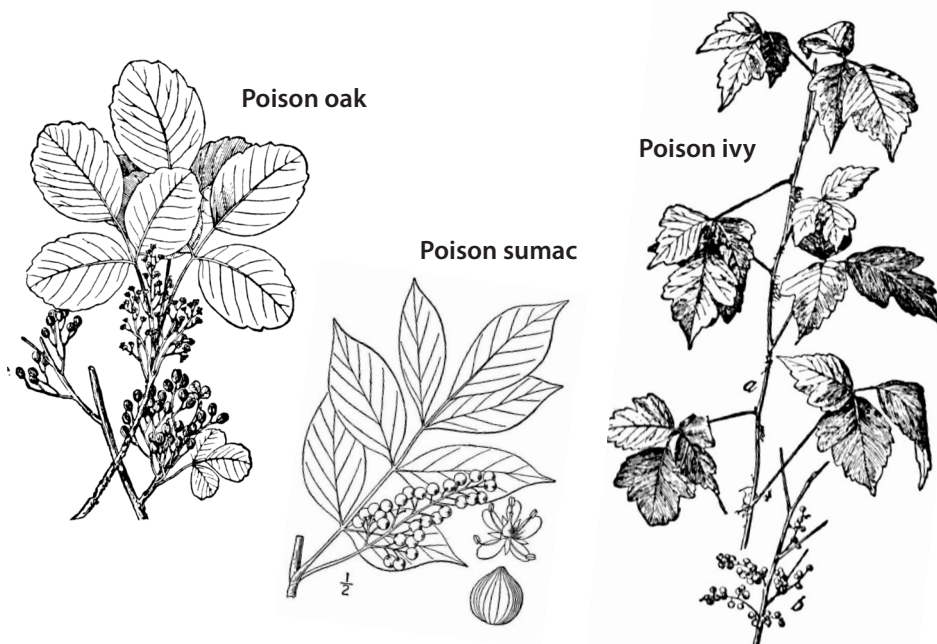
There are many different parts of nature that can be observed and studied. Here are some examples, but use your imagination, walk quietly, and see what you observe.

Plants

Being able to identify plants and trees makes your neighborhood, your camping trips, and outings into the wild more interesting. For example, if you know what kinds of flowers hummingbirds like, you're more likely to see one. It is also very important to be able to identify the poisonous plants in your area. Poison ivy, poison oak, and poison sumac can be found in most areas in the United States, and you'll want to be able to identify which ones are in your area so you can avoid them in the wild!

Plant identification can also be used to find and enjoy edible native plants, learn which types of trees are or are not thriving in a forest, and identify native and non-native species in your region.

Of course, you'll want to know which plants to avoid touching or eating. Some types of mushrooms can really hurt you even if you eat only a little bit. And some plants hurt to touch, like stinging nettles, so you want to be able to identify those quickly. There are many reasons why it's important to know what grows in your area.



Animals

If you learn to be quiet in nature, you'll have the opportunity to see many animals that you wouldn't otherwise get the opportunity to observe. This also means paying attention to signs that animals were there, as discussed in the Chapter 3. Can you identify the print of a deer, a raccoon, and a bear? What about a rabbit? Nature study gives you the chance to see a wide variety of birds (maybe keep a list and work on your Birder badge), insects, snakes, fish, and mammals.



Badge Box

The Outdoor Skills badges are a great place to start: **Birder**, **Observer**, **Naturalist**, and **Flower Finder**, all help you sharpen your observations skills and understand the animals and plants around you. Or consider **Zoologist** under Life Skills!

Remember never to approach wild animals or any animals that is not your own personal pet. In addition, it's a good idea to know how to identify if an animal is generally safe or dangerous. Do you know how to recognize a rattlesnake? What about dangerous spiders? It's a good idea to be cautious around animals and look up possible dangers before interacting with any animal.

Weather

Observing the weather is also part of nature study. Paying attention to the sun and the clouds, knowing the warning signs for thunder and lightning, and understanding patterns of rain, wind and snow are all useful, especially if you are planning on being out of doors!

Observing how weather changes, and knowing how the weather can affect you, is often the difference between a wonderful experience and a terrible one. Of course, if you want to understand weather in more detail than looking at your windows to see if it's wet outside, then consider learning about barometric pressure, how to read weather maps, and maybe even setting up a home weather station.

Some places experience extreme temperatures at different times of year, while in other places the change in seasons may not be as noticeable. Nature observation includes observing how nature changes over time, both from morning through night, as well as through the seasons.

Conducting observations and writing them down over time can give you a sense of how the weather in your area changes throughout the year. And once you link that to your other observations you make in nature, you'll see how everything in the world is connected. The sun and rain feed the plants, which feed the animals, and so on. If you really want to dive into all the details when it comes to weather, check

out the requirements for the Meteorologist badge, and make a plan to achieve it!

Geology

What is the earth around you made of?
What kind of rocks and dirt are in your region? These are simple things many of us do not know—yet.

Badge Box

This is a great place to check out the Life Skills badges for **Geologist** or **Collector**!



There are three basic types of rock: sedimentary, metamorphic, and igneous. Those names indicate how those rocks were formed—for example, if it was from lots of layers of dirt over time that pressed into rocks (sedimentary), or hot, melted rock that cooled (igneous). Or perhaps heat and pressure took one type and turned it into something else (metamorphic). Erosion of the rocks will change the landscape. Pay attention to what is around you, and you'll have a better understanding of what happened in that location in the past. And, depending on where you are, you may even find fossils of ancient plants and animals!

Biomes

The world is a fascinating patchwork of diverse places, each with its own unique character and inhabitants. These places are known as biomes. A biome is a naturally occurring area where specific plants, animals, and environmental conditions come together. It's like a neighborhood for nature!

Each biome has its own unique plants and animals. What type of biome are you living in? Understanding your biome will inform you on how to move safely through that habitat, and respect other forms of life in there with you.

Types of Biomes

Aquatic biomes include the vast oceans, lakes, rivers, and even smaller bodies of water like ponds. These are home to a marvelous array of marine creatures, from colorful coral reefs to playful dolphins and mysterious deep-sea creatures.

Desert biomes are where you'll find scorching sands, intense heat, and limited water. Cacti, camels, and hardy desert animals have adapted to survive in these arid environments, making the most of every precious drop of water they find.

In **forest** biomes, there are lush green realms that vary from dense, tropical rainforests teeming with life to temperate forests with beautiful deciduous trees that change colors with the seasons. Forests provide shelter to countless animals,

including monkeys swinging through the treetops, squirrels bounding on the forest floor, and majestic birds soaring through the canopy.

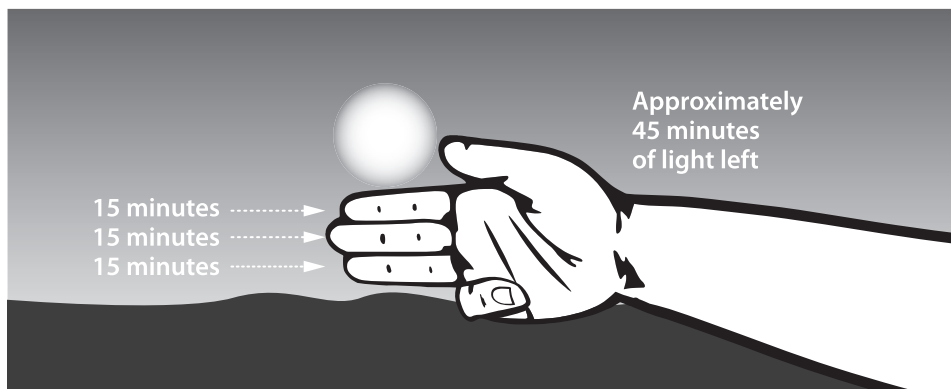
Grassland biomes stretch out like golden waves, with vast expanses of open grasses. Here, you'll find animals such as pronghorns, bison, and zebras roaming freely, as well as predators like lions and cheetahs on the prowl. These open spaces are perfect for herbivores to graze and for predators to hunt.

Lastly, the **tundra** biome is where freezing temperatures and short summers make life challenging. Hardy plants like mosses and lichens brave the cold, while animals like polar bears, Arctic foxes, and reindeer have adapted to survive in this icy environment.

The Sky Above

There's a lot we can learn from the sky above our heads. We can find the cardinal directions both day and night using the strategies outlined in Chapter 16 in the section on measurements and map making.

In daylight you can also use the sun's position to estimate how much daylight is remaining. Extend your arms straight away from your body and bend your wrists so your palms are facing you. Place one hand directly above the other, with your fingers stacked from the horizon to the sun, but don't look directly at the sun! For the average adult, each finger represents about the distance the sun will travel in 15 minutes. You may wish to test this out beforehand with a watch, so you can know if you have 10-minute fingers, 12-minute fingers, or 20-minute fingers.



When the sun goes down, looking into the night sky is looking back in time. The light we see began its journey from a distant star long ago. Our nearest-known star, besides the sun, is Proxima Centauri, about four light-years away. That means it takes the starlight four years, at 186,000 miles per second, to reach Earth.



Star's Long Journey to You

Most of the stars we see with the naked eye are a few hundred light-years away. That means when that light left the star, the United States was not yet a country. The most distant stars we can see without a telescope are about 2,000 light-years away, meaning that the Roman Empire, the Zhou dynasty in China, and the Maya civilization were all at their heights when the light first started to make its journey to our eyes.

Some visible celestial objects are even farther away. The Andromeda Galaxy can be seen on a moonless night, and that's 2.5 million light-years from Earth! It takes a whole galaxy's worth of stars for us to see that far back in time.

What's an Amateur Naturalist?

Being an amateur naturalist means paying close attention to the world around you. It means moving very quietly through nature to see if you can follow an animal without disturbing it. There are several tools of the amateur naturalist's trade.

- A naturalist journal or sketch pad is an important, handy place to jot down your observations, draw maps of where you saw things, and note the date and the weather conditions.
- You may also consider using binoculars to help you to get a better view, and a camera will allow you to create a more permanent record.
- A field guide to your area, or an area that you travel to regularly, can help you identify plants and animals and make your experience richer.

Other tools you might consider include a measuring tape (the kind used to measure fabric is particularly useful, as it is light and flexible) or ruler, magnifiers, plant collection tools, geology tools, and anything else that lets you explore the natural world while still taking care of it. And perhaps leaving it better than you found it.

Plaster Footprints

As part of being an amateur naturalist, you may want to consider taking plaster casts of footprints you find. You'll need some plaster of paris, some water, a cup or bowl to hold it all and mix it together, and something to mix it with. Tracks found

in dirt or mud work best. Once you have found the animal track you want a cast of, mix as much of the plaster of Paris as you think is needed to fill the track using two parts plaster per one part of water. Carefully pour the plaster mixture into the track, and let it sit for 30 minutes to one hour, or longer if you can. Once it's dry, gently pry it out of the ground. Be sure to take notes clearly identifying where you took the cast.

Collecting Plants

Collecting and preserving plants is another way to practice nature study. While some plant specimens may be kept alive, it is more common to dry and press the plants, and these will often preserve them for many years.

Before picking a plant or collecting a specimen of any type, are you in a place that allows the removal of natural specimens? Some places don't, so check beforehand. Also keep in mind that you want to gather only what you need, and never more than necessary. Is this the only flower like it that could be enjoyed by others? Then perhaps consider a photograph or drawing instead. If there are many such specimens, gather only what you need, and clean any mud or dirt off it.

Drying Plants

Put your specimen between two layers of an absorbent material, such as newspaper or cardboard, and then either put it into a plant press or beneath something flat and heavy like a dictionary that can stay there until the sample is dry. The absorbent material should be replaced approximately every 24 hours, and complete drying time generally takes 7 to 10 days, but will depend on the plant.

MYOB (Make Your Own Biome) with a Terrarium

You can grow your own plants, even plants that require a different environment than your region offers. To create that environment, you can make a terrarium. A terrarium is like an aquarium without the water; it usually involves a glass or plastic container, soil, and plants.

Terrariums can be small, like a jar or glass, or large enough to keep several plants. Terrariums can be open to the air or sealed. Open containers work for plants that like a lot of sun, or which are suited to your environment. Closed containers make excellent terrariums for plants that need more humidity, because the cover prevents moisture from escaping.

To create your terrarium, start by selecting your container. Cover the bottom of

your container with a layer of pebbles. This allows room for moisture to drain and keeps the roots from rotting. Covering the pebbles with dried moss will prevent the soil from falling down and mixing with the pebbles. If you're going to seal the terrarium, a layer of charcoal pieces will help remove toxins from the soil.

Once you've laid down the moss and charcoal, you can add potting soil. Fill the container to the halfway point or a little higher. Then you can add your plants!

If your terrarium is sealed, water will evaporate and condense on the inside of the jar, running down into the soil. You'll have a fully self-sustaining ecosystem on your desk!

You can experiment with growing different plants in your room at home. Mosses love terrariums, as do cacti. Some flowers, like African violets, thrive in a closed terrarium. Be careful placing the terrarium in direct sunlight, or the glass will retain heat and create a tiny greenhouse!



Nature and Technology

Technology truly has changed the way humans relate to the wilderness. This has both positive and negative effects; stronger rucksacks, lighter equipment, and performance clothing make our hikes easier, which is good. However, too many people have become reliant upon GPS and can't make their way without it, which can sometimes be a problem.

Part of being a scout is learning skills you can use on your own, without modern technology. We learn how to signal over distances for times when our phones are out of battery, and we learn how to read and make maps for areas where GPS signals don't go (see Chapter 16).

Tools sometimes break. The more complicated the tool is, the more likely is to break. And the phone in your pocket will almost always be the most complicated tool on your adventure.

But even with all our skills, we continue to use tools. A scout must “Be Prepared” and that means knowing which tools to use when.

For example, you can research poisonous plants in your area as part of planning a hike. Don’t wait until you’re on the trail to start the web search. You can also use an app for charting your hike, keeping track of distance and route, so long as you don’t rely on it *alone* to chart your hike.



Tech Trap

A good way of thinking about “technology as tool” is to use it as a supplement to your skills, not a replacement for them.

There are some amazing ways to improve our experience with technology. Stargazing apps can help us decipher the night sky, illuminating and highlighting sights only partially visible in the night sky. If you discover a plant

in the wilderness that you didn’t come across in your planning, a leaf identification app is a great help, more immediate than making a drawing and waiting until you get home to figure out what you’ve found.

If you only use technology to supplement your skills, you’ll be able to continue your adventure when that technology fails.

Becoming a Citizen Scientist

Being an observer of nature also sets you up to be a citizen scientist, which means a member of what is sometimes called “crowd-sourced science,” or “community science.” But what does that mean?

The National Geographic Society defines community science as “the practice of public participation and collaboration in scientific research to increase scientific knowledge. Through citizen science, people share and contribute to data monitoring and collection programs.” That means curious, concerned, or interested members of the general public can help shape our collective understanding of the world around us. We don’t have to be a professional scientist to be scientists.

Amateur astronomers are perhaps the best-known example of citizen scientists. Many important discoveries have come from people who look at the night sky as a hobby rather than a job. Sometimes these citizen scientists are collecting the data

themselves. Most of what we have observed about variable stars, a type of star that changes brightness, has come through the telescopes of amateurs. In 2020, when citizen scientists noticed anomalies in data gathered by a NASA satellite, leading to the discovery of a whole new kind of star no human had ever observed before!

But whatever your interest, you can get involved! If you live near a national park, the National Park Service relies on citizen scientists to observe plant and animal life within its boundaries. If you live in a city, ornithologists need your help charting bird migrations. If you're near a coastline, researchers need your help cataloging the refuse that washes up on shore so they can track plastic levels in our shared waters. For every branch of science, there's a way for us to contribute, a way for us to make a difference. And all of these are part of observing the world around us and participating as good stewards of the earth.

The Scout's Own Garden

Every scout should have a garden. Indeed, every *person* should have a garden. Our gardens might be enlisted in the production of food or may instead focus on enhancing the beauty of our surroundings with flowers and greenery.

If you live in the city or in an apartment with no yard, try growing something in a sunny window. Even if your windows don't get direct sunlight there will be enough light to grow a spider plant (*Chlorophytum comosum*), a peace lily (*Spathiphyllum wallisii*), or a snake plant (*Sansevieria trifasciata*).

Plants help clean indoor air and even remove volatile organic compounds (VOCs)—one of the primary contributors to global climate change. For a while NASA studied using these plants on long term space missions and on semi-permanent structures like the International Space Station. Cleaner air and a more attractive window view are great, but so is watching something grow and knowing you took care of it. It's remarkably satisfying, and a useful skill.

Another option is to involve yourself with an urban allotment, a community garden, or an urban farm. There may be an organization already running one of these areas of natural greenery and open to volunteers. Volunteering at one can be a service to the community and a way to practice agriculture! Sometimes, gardens have plots available to rent seasonally. You, your patrol, your troop, or your family



could rent one for the season and grow things you're interested in learning more about or just want to have more of in your life. You might discover a lifelong love of gardening.

If none of these options are available to you, your only choice is to go rogue. Many urban gardeners plant (sow) and tend seeds in sidewalk cracks, vacant lots, alleyways or even fire escapes. You can make seed bombs using a mixture of wildflower seeds, newspaper, and water. Seed bombs are an old technique of wrapping native seeds in clay or another material that helps seeds germinate while protecting them from insects and birds (see page 169 for a recipe).



Garden Size

A common mistake is to make their garden too large. Many sources recommend a starter in-ground garden of 10 feet square, which could be good if there are two or more of you working on it. If you're doing it all by yourself, try something smaller like a two-row bed about 5 feet long.

If you have access to more space, consider planting a bigger garden. Many suburban lawns are covered in green grass. Assuming you have permission to change what grows there—definitely ask—you can plow the lawn and get started. Many new gardens will use a “lasagna method” to get started. However, the most reliable, fastest, and most traditional method involves double digging.

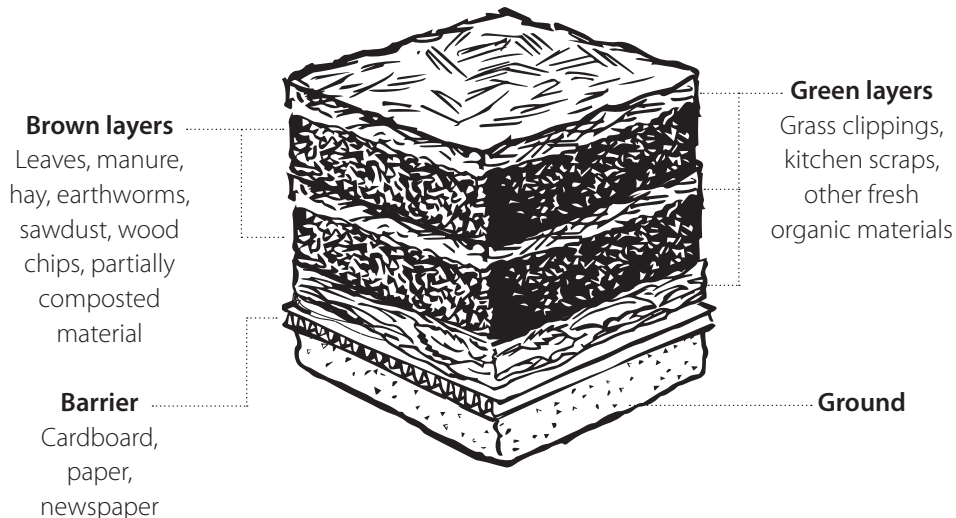
It's best to prepare your garden to be ready to plant soon after the last frost in your area. The USDA Plant Hardiness Zone Map can help you figure out when based on what you're planting and what part of the country you're in.

The lasagna method of gardening starts by making compost in part of your yard and then using that compost to grow your garden. To give your compost time to get ready, you'll want to prepare your bed (steps 1–4) early autumn the year *before* you want to plant to give the material time to turn into compost.

Lasagna Method of Gardening

1. Clear vegetation from intended space and save it for step 3.
2. Lay cardboard, newspaper, scrap paper or other biodegradable material.
3. Lay organic material on top of cardboard.
4. Introduce earthworms, if possible (not to each other—place them on the cardboard).
5. Plant seed potatoes (organic potatoes will sprout what are called eyes. Cut the potato such that it contains only two eyes—each of these seed potatoes will become a potato plant).
6. Cover with any organic material you can find, such as grass clippings, municipal compost, compost, leaves, mulch, hay, weeds, anything living plant or once a living plant.
7. Harvest potatoes by digging any time after they bloom with little white or purple flowers, preferably at least 60 days after planting.
8. In the fall, add more brown materials such as leaves or grass cuttings and, if needed, more worms.
9. The following year, plant beets or *Brassicas* (broccoli, cabbage, brussels sprouts, or kale) or both.
10. Continue to add organic material in layers like one might make a lasagna.
11. Eat, enjoy, repeat.

Garden Lasagna



Double-Digging Method of Gardening

1. Clear vegetation from intended space, save for compost.
2. Dig one shovel deep across the entire space. Save the soil on a separate pile.
3. Dig a second shovel deep in the same area (hence the name double-digging). Turn this material to loosen the ground and make room for roots, air, and water to penetrate. One of the biggest problems facing gardeners is soil compaction.
4. Add any compost, fertilizer, or organic material to which you have access.
5. Move material from step 2 back into the garden bed.
6. Plant seed potatoes. (Organic potatoes will sprout what are called eyes. Cut the potato so it contains only two eyes—each of these seed potatoes will become a potato plant.)
7. Cover with any organic material you can find: grass clippings, municipal compost, compost, leaves, mulch, hay, weeds, anything living plant or once a living plant.
8. Harvest potatoes by digging any time after they bloom with little white flowers. But preferably at least 60 days after planting.
9. The following year, plant beets or *Brassicas* (broccoli, cabbage, brussels sprouts, or kale) or both.
10. Continue to add organic material.
11. Eat, enjoy, repeat!

Composting

Realistically, a gardener's first step should be to establish a compost system. These can be very simple or incredibly complex. Many municipalities (that's a fancy word for towns) have compost programs. They gather organic waste from the citizens, have a system of breaking it down, then bag to sell or give it back. If your town doesn't have a system like this, or you want a more hands on approach or if organic gardening is important to you, then you need to establish your own compost system.

The simplest system is to begin building a pile of biodegradable garden and yard waste. Include vegetable kitchen scraps and waste. The smaller the pieces, the faster it will decompose into compost. Do not include cooked or raw meats, cooked food waste, or animal waste, as these will draw rodents to the pile and may slow decomposition. Turn or aerate monthly.

But, why compost?

A plant requires roughly the same things humans do to survive: air, food, and sunlight. Compost is plant food. A plant uses food it gathers from the soil through its roots. If you were to only eat candy, you would not thrive. If you were to only eat meat you would not thrive. Like you, a plant needs a balanced diet.

ELEMENT	BENEFITS
Nitrogen (N)	Encourages green leafy growth, structure of cell walls
Phosphorus (P)	Encourages flowering and root growth
Potassium (K)	Encourages root and stem growth

Compost includes a little of each: N, P, K, plus trace minerals. Earthworm castings (that's scat) also are beneficial, but likely a garden will need some kind of input of rotted animal manure to increase the nitrogen content in the soil. Clean water is also needed. Rainwater is best, but any source of clean water will do.

Compost also helps a gardener to build soil, adds organic matter to the soil, and increases both drainage and water retention in soil. Plus, it's free!

Soil or Dirt?

Many people don't know the difference between soil and dirt. The important thing to know is that soil has organic matter in it and dirt doesn't. Organic matter is what you get when you let plant or animal parts decompose. Plants need organic matter to help them get nutrients from the ground they live in it. Because pure dirt doesn't have that organic matter, plants can't grow in it.



What To Plant, How To Plant, and Companion Plants

To limit the amount of added manure or compost needed, you can use crop rotations, companion planting, or both. *Crop rotation* means to rotate the crops you plant each year, to avoid depleting nutrients from the soil. To understand this, one must understand that all plants are broken into different classes or types.

The primary divisions of edible, plantable species are:

- Nitrogen Fixers (beans, black eyed peas, peanuts, peas)
- *Brassicas* (broccoli, kale, cauliflower, brussels sprouts)
- Leafy (lettuce, Swiss chard, spinach)
- Miners (Beets, turnips, root vegetables, carrots)
- Eaters (tomatoes, potatoes, squash, peppers)
- *Alliums* (garlic, onion, shallot, leek)
- Grains (oats, corn, wheat, rye)

A good rotation of these plants leaves the necessary nutrients for next year's planting. With some rotations it is possible to get two plantings and harvests in a single season. All of us live in different places and have different microclimates so getting to know your own biome is imperative.

One favorite system is to plant Nitrogen Fixers, like peas, early in the spring, then *Brassicas* intermingled with Miners or Beans for a fall harvest. The following year plant *Alliums* or Leafy. Some people like planting Eaters one season then the next year following up with Leafy planted early and Nitrogen Fixers planted late.

Planting only one crop in the same place repeatedly is called *monocropping* and can lead to soil depletion, erosion, pests, and increased level of fungal growth. Try to always plant a new type of plant every time.

Companion Plants

Companion planting is placing compatible, beneficial plants alongside one another in your garden. There are many traditional matchups.

- Beets love broccoli.
- Carrots love tomatoes.
- Onions don't really like anyone.
- Cucumbers and sunflowers are besties.
- Northeastern Native American "three sisters" are corn, beans, and squash, planted with a fish as fertilizer.



Three Sisters

The Native American "three sisters" planting technique is a traditional method that combines the cultivation of three important crops: corn, beans, and squash. These three sisters work together in harmony, benefiting each other as they grow. The tall cornstalks provide support for the climbing bean vines, while the beans help enrich the soil with nitrogen. The low-growing squash plants create a natural ground cover, preventing weed growth and retaining moisture in the soil. This ancient agricultural practice is one example of the wisdom of Native American communities, while emphasizing sustainable and mutually beneficial relationships between plants for a bountiful harvest.

Plants need room to grow and light and air. If they are crammed too closely together, they will not have those things. But if there is an abundance of spacing between them there is an abundance of room for weeds and less harvest for you to eat and everyone remembers a scout's legendary thriftiness. The answer is very subjective. You'll have to try it and see what works best for you and your garden.

Get your gardening project off to a good start with the following instructions.

Start Your Garden With Seeds

1. Prepare the soil: Level out the freshly turned soil in your garden bed.
2. Create furrows: Use a tool or your finger to scratch furrows on the soil, creating shallow trenches where the seeds will be placed.
3. Plant: Plant the seeds roughly twice the size of the seed down into the soil.
4. Cover and lightly compact: Cover the seeds with loose soil and then lightly compact the area where the seeds are by gently pressing it with your hand.
5. Water: Water the seeded area often but not too heavily for at least a week after planting. Ensure the soil remains moist but not waterlogged.
6. Watch for germination: Most seeds will start to sprout and germinate within seven to ten days.

Start Your Garden With Plant Starts (Seedlings)

1. Dig the hole: Dig a hole that is twice the depth of the plant start using a small trowel.
2. Prepare the hole: Add compost to the hole and mix it with the backfill soil.
3. Plant the start: Place the plant start carefully into the hole, ensuring the top of the plant's root ball is level with the surrounding soil.
4. Cover and slightly compact: Cover the plant start with loose soil and then slightly compact the area around it by gently pressing it with your hand.
5. Water: Water the newly planted start generously but not excessively for at least a week after planting. Make sure the soil around the plant remains moist but not waterlogged.

Remember, whether you're planting seeds or plant starts, regular watering, proper sunlight, and attention to any specific care instructions for the particular plants you're growing will help them thrive in your garden.

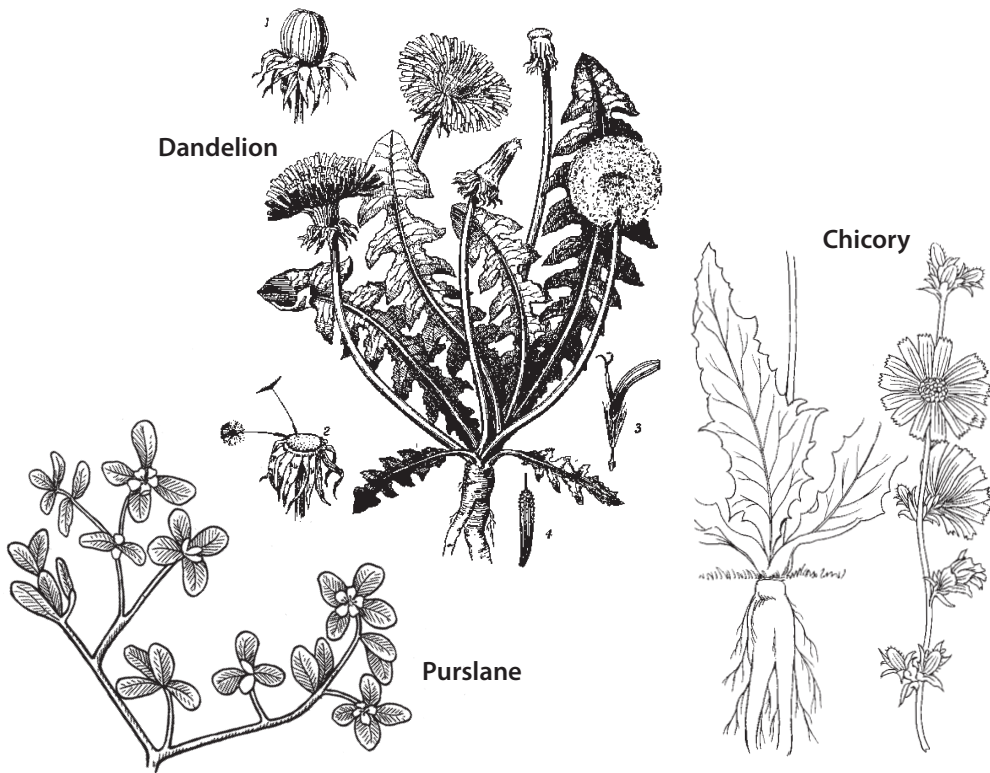
Guerrilla Gardening with Seed Bombs (Seed Balls)

1. Gather and shred recycled paper (more color makes more colorful seed bombs).
2. Soak overnight in clean water.
3. Blend in a food processor or by hand to make a paste.
4. Add wildflower or lettuce seeds (be careful to avoid invasive species).
5. Mix well and form into balls or use cookie cutters for any desired shape.
6. Let dry.
7. Throw your "bombs" anywhere the seeds could take root.



Common Weeds and Pests

Once you get your garden planted, the waiting game begins. It's important to know the most common weeds that will penetrate your garden space: these might be bad for your plants, but they're not always bad for you. Most common weeds are edible, and many are medicinal. Get to know all about purslane, dandelion, chicory, and amaranth. These are all edible weeds that were once cultivated and have freed themselves to roam the gardens of the world. In the spring you might make a salad of only these, and a tasty salad at that.



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Insects: Keep the Pollinators, Eliminate the Eaters

Another danger to these precious gardens is damage due to insect activity. It is very important to know the difference between beneficial insects and damaging ones. We must learn ways to control one without injuring the other. The best way is to plant marigolds and garlic. Both will keep harmful insects away. In short, keep the Pollinators, eliminate the Eaters.

Insect life varies dramatically according to region, so find a good guide at your local library or cooperative extension. Both are invaluable resources.

Edible, Beautiful, or Beneficial: What to Choose?

Everyone needs food, so a practical gardener would say to grow only food. However, we all also need to see beauty, so an aesthetic gardener would say to grow only flowers. My advice is to do both. Dabble. Grow some food, grow some of your favorite colors of flowers, get dirt under your fingernails, help these plants to create oxygen, and get in touch with your primal self. Our ancestors, no matter what continent they lived on, practiced subsistence farming. The ties that bind our diverse membership together all need to eat.

Happy gardening!

End of Chapter Reflection Questions

- How is being a naturalist different than being a gardener? What similarities do they share?
- What are ways you might bring more plants into your daily life?
- What seems the most daunting about starting a garden? What might you do to overcome those challenges?



10

CAMPAIGNING

As a Tenderfoot, you'll probably get many opportunities to go camping. It's a lot of fun to go out with your friends outdoors, set up camp, play games, and learn scout skills. As you get older, though, and become interested in new challenges and wider adventures, you might find the itch to go *campaigning*.

Campaigning includes camping, of course, but of a different sort. Campaigning involves a journey, and perhaps exploration, and allows you to get farther out and see bigger things and live a different life than you can get to by car or when carrying all the gear to set up a big, comfortable camp.

Imagine canoeing across pristine lakes, with no houses anywhere, to a string of camping sites no car can reach. Or hefting your backpack and walking away from the crowds at a national park entrance out into a wilderness where signs of animals are everywhere, people are few, and you select your campsite every night. Gorges, rivers, and waterfalls—mountains, canyons, and plains—desert, forest, and marshland—there's so much to explore and each new campaign brings its own challenges.

The longest and most challenging of these journeys should only be attempted by First Class scouts, but the fundamentals shared in this chapter can be adopted by any scout, and help you be prepared for more difficult trips, which itself opens more opportunities.

One of the great things about the big, wide, world is that it never has to get boring: there's more out there than anyone can see in a single lifetime. Becoming a better

paddler lets you try new waters, which will expand your horizons. And if you finally tire of exploring the world one way, say backpacking or canoeing, try rock climbing or caving! It's always fun to be a beginner and start the fun journey all over again.

Campaigning vs. Patrol Camping

In patrol camping, the emphasis is on setting up camp. Camp is set up for comfort and functionality, to set the stage for where your patrol or troop will play and work for the next two, or more, days. Individual tents and patrol kitchens are set up, so you can generally plan to bring anything you think you need, or even might want.

Campaigning requires a different mindset. When you need to carry everything on your back, bike, or boat, every ounce or square inch must be justified. When you can only bring safety- or health- based essentials, you soon realize that what you previously thought of as necessities start to look like luxuries.

So, shared gear is the order of the day, plus a good understanding of how your equipment works so you can repair it in the field. One shelter shared by two to four scouts, simpler menus allow for group meals, and full utilization of the patrol's supplies means there is enough if an emergency arises and is still lighter than every scout carrying one.

The latest lightweight gear may be alluring but mightn't be as good as gear we make ourselves, and it rarely qualifies as thrifty. Creating lighter-weight, flexible options may require more skill, but that's part of the fun and adventure. What's easier—setting up a pop-up tent, or a simple, wind and rain-proof shelter from a single tarp? It depends on your level of experience.

An experienced Pathfinder can make themselves at home in all sorts of climates and knows where (and where not) to pitch the tarp, how to adjust it for weather conditions, and how to repair it if necessary. That skill and self-sufficiency frees Senior Pathfinders to seek adventures that would be impractical or unsafe for a Tenderfoot or Second Class scout.

Essential Safety Tips

Campaigning may be a way to “get away from it all,” but being further out in the field means you’re also further away from emergency medical services. Our motto, “Be Prepared” is never more important than when campaigning: make sure to use the material here to help plan safer trips for your patrol.

Campaign as a Group

Always plan your adventure with a buddy or better yet, with your patrol. Campaigning with your patrol has many advantages—shared gear, diverse skills, companionship—but none is more important than safety. With three scouts, if one is injured, one can go for help while the other stays with the injured scout. Hiking alone, or with just one buddy can make a bad situation much harder to get out of.

Avoid the Biggest Danger

Adventuring in small groups can help mitigate one of the biggest dangers in the outdoors: **other people**. People you meet will be less likely to cause trouble for a group than for an individual. And never, ever, share information about your route, destination, or travel plans with strangers.



Research the Area

Know where you’re going, the type of terrain, weather, and other conditions you’re likely to encounter. As the time of your trip approaches, reach out to the local park ranger and ask for current conditions on your route. Adjust the plan as needed.

Make a Plan and Share It

Lay out your route carefully. Set clear expectations with yourself and your companions about how far you can travel each day, and how to bail out early if things aren’t going as planned. Share your plan with adults who aren’t going on the trip—your parents, and a scoutmaster or assistant scoutmaster. Have a plan for communicating with someone who knows where you’re going. Set clear expectations as to when you’ll be back, and when it’s time to worry if they haven’t heard from you.

Carry the 10 Essentials

Once you’re away from help, you’ll need to rely on you and your patrol or travel buddies for the know-how and equipment needed to get to your destination, and to handle any unexpected problems. Start with the 10 Essentials (see Chapter 2), and supplement based on the type of adventure planned. It may seem like overkill to carry a winter coat in June, but having it may have saved the lives of a Rover and

his family in the White Mountains of New Hampshire when a late spring squall came in.

Know Your Navigation

When campaigning, you can't rely on trail markers or other signs to ensure that you never get lost. You need to be able to find your way around using multiple methods and know what to do when lost. You should know how to read a map, take and follow a compass bearing, and other navigation techniques specific to the activity and area where you're campaigning. A good start is to have one or more First Class scouts in your group. Best to have at least one person in your patrol who has earned the Orienteer and the Ranger special proficiency badges.



STOP: Stop, Think, Observe, Plan

If you become lost, remember the acronym **STOP**: STOP • THINK • OBSERVE • PLAN.

STOP: When you realize you might be lost, stop walking. Moving without regrouping is likely to get you more lost, or at least thwart your efforts to get un-lost. And don't panic! Your group has, if you've planned correctly, the skills to get through this. Panic will only keep you from remembering to use them.

THINK: Once you're calm, assess the situation. This includes reviewing your emergency plan. What should your priorities be right now, based on your situation? Getting un-lost might seem like the priority, but also consider urgent first aid needs, warmth, or overnight shelter? Take a breath and think about the last time you were sure you were where you had planned to be. Thinking through your situation step-by-step could provide clues as to how to get back. Discuss ideas thoroughly: hastily jumping on one "good idea" can be dangerous!

OBSERVE: Take time to look at your surroundings. What could help you address your priorities? What do you have with you? What time of day is it? What's the weather telling you about what you need to do to stay safe? What skills and tools do you have that might help now? Writing down priorities and resources as a group may help you think it through carefully and keep clear heads.

PLAN: Use the information you've gathered to make a plan. Calmly talk it through with the other members of your group and consider the benefits and risks for multiple options. Be sure to think about how you'll know if your plan's not working, and you need to stop and rethink. Be ready to consider how to signal for help, or set up a safe camp, if you don't think you'll be able to find your way out.

Be prepared to **STOP** more than once. You need to balance sticking with a plan with being flexible, as conditions change, or you get more information.

Know First Aid

First aid is critically important when campaigning, as help can be a long way away and therefore first aid may be the only aid for some time. Any patrol going on a high-adventure campaign that's a day or more away from help should have at least one member who is certified in wilderness first aid or have the First Aid special proficiency badge. There are also many organizations that provide excellent wilderness first aid courses, and you can work with your scoutmaster to find one in your area and figure out how to pay the necessary registration fees.

If no Pathfinder in your group has these skills, always have a Rover or adult leader with you who can fulfill this requirement.

Flora, Fauna, and Insects

Know the types of animals and insects you're likely to encounter in the territory you're exploring, and plan appropriately. Pack necessary repellents. Think about how to protect food from animals and insects without a permanent camp.

Insect Checks

- Review patrol allergies and check that your first aid kit is stocked with appropriate medicines for insect bites or stings.
- Make sure any members with “emergency” prescription medicine have some with them, and there's someone else who knows how to help them if they're in a situation where they can't help themselves.
- Make clothing plans to help repel insects. Use repellent judiciously.
- Check for ticks or other insects regularly and consider bringing a tick removal kit that includes a container to bring home a tick to test for infectious diseases if someone has been bitten.

Bigger Intruders

You may need to adjust your behavior, for example, around making extra noise when traveling in known bear country. Also, larger animals are most often attracted to food. When in camp, take precautions: use a bear bag or bear resistant container, depending on the recommendations for the area you're visiting. When in bear country, make sure your patrol travels with a bear container for food. Even if bears aren't around, protect your food from other animals by suspending it in a tree. Never keep food in your tent.

When campaigning, it may even be advantageous to cook dinner while on your journey, so the cooking smells don't attract animals to your camp. Find a good place to stop, prepare and enjoy your meal at least one hour's journey from your planned overnight site. After cleaning up, continue on the journey.



“Leave No Trace”

In the wilderness, the “Leave No Trace” (LNT) principles remain the same, but you’ll need to take extra care to follow them. This section considers LNT principles 2, 3, and 5 specifically as they apply to campaigning.

Principle 2: Travel and Camp on Durable Surfaces

Scouts want to minimize their impact on the earth when exploring. Just as you wouldn’t pollute the river you boat on, or damage the caves you explore, you need to think through treading lightly as you travel. When hiking, that often means using only existing trails and campsites, camping at least 200 feet from water sources, and never destroying vegetation. Stay on the trail!

When exploring more pristine or wilderness areas it can be harder to judge how to minimize the damage your presence creates to the local ecosystem. A good rule is to disperse your impact. Avoid the creation of campsites and trails, disperse your shelters, and set shelters up to minimize the effect on local vegetation.

Principle 3: Dispose of All Waste Properly

When camping at campsites with established latrines, you can usually meet this principle by simply taking your garbage with you. In the backcountry, however, you need to be ready to deal with human waste.

Check the rules for human waste in the area before you go. In most places, the accepted method is to dig a “cat hole” where you can bury your feces underground, but you’ll still need to take out any other materials, such as used toilet paper. In some particularly fragile environments—such as high alpine, or in heavily used areas—you may need to carry out solid waste as well.

Digging a Cat Hole

It’s not something you’ll look forward to, but burying human waste is one of the best ways to minimize our impact outdoors. When properly buried, deep enough to eliminate odor, the microbes in the soil will help break it down.

1. Plan ahead! You’ll want to bring along a toilet kit that includes, in a resealable bag, a lightweight camp trowel, some toilet tissue, and hand sanitizing gel.
2. Dig your hole before your need is urgent so you don’t hurry through it and do a poor job. A hole should be at least 200 feet (about 70-90 steps) from any water source, and also 200 feet from your camp and camp kitchen. Look for loose, dark soil that will be easy to dig and indicates the soil may be able to

break waste down more quickly. The hole should be 4 inches wide and 6-8 inches deep.

3. Since you need to pack out any toilet paper or other waste, you may want to minimize your use of those materials. Consider leaves or other organic material to clean yourself, which can be buried along with the waste. Be sure you know the leaf you're using to avoid problems from poisonous plants! Any waste you do need to pack out should be double bagged in two sealable plastic bags.
4. After you're done, use the trowel to fill in the hole with the dirt you removed, taking care not to touch any waste with your shovel, and tamp it down with your foot. Cover the area back up with forest debris, sticks, or a rock to minimize the chance of people or animals finding it. If multiple people in your group need to dig cat holes, they should be spaced as far apart as is reasonably possible.
5. Finally, wash your hands with the sanitizing gel, scrubbing your hands together vigorously and getting the fingers, between the fingers, under fingernails, and the palms and backs of your hands. Most backcountry illness comes from poor sanitary practices. A scout is clean! Be sure to ALSO wash your hands with soap and water as frequently as it is sensible, at least once per day.

Menstruation in the Woods

Managing your monthly cycle can take a little more planning if you're going to be out on a campaign. It's fine to schedule your campaign around your cycle, but your cycle may shift when you're out of your usual environment or exercising more than usual. So, bring supplies even if you think you won't need them. You may also find that your period is delayed after camping, as your body may not produce the same hormones as usual due to the extra exercise.

Choosing the right menstrual products for a camping trip is very personal. Pads can shift and period panties may be a good substitute, or they can be worn together to prevent leaks. Tampons may also be a solution for some scouts.

Masking Odors

If you are concerned about masking the smell of your waste, make sure both bags are sealed, and try adding crushed aspirin, scattering the contents of a tea bag, or used coffee grounds to the bag.



Whatever you choose, be comfortable using it at home before bringing it on a campaign. Also, pack your menstrual products together in a small bag and place in an accessible spot, such as an outer pouch of your backpack. Bring another bag to pack out your supplies and be sure to change them regularly for good health and your personal comfort. Tampons must be changed at least as often as recommend-

ed on the package, to prevent toxic shock syndrome. Wash your hands regularly, as you would at home.

Carrying It Out

Before you go, prepare a human waste bag or a bag to bring home reusable pads, supplies, or panties. A good solution is two heavy-duty Ziploc freezer bags, one inside the other, with the outer one covered in duct tape. The duct tape will help the bag survive shifting around inside your pack and obscure the contents. Label it.

Principle 5: Minimize the Impact of Any Campfires

Pioneers and explorers of an earlier era regularly made campfires at night for cooking, heat, and protection, but times have changed. To protect our land from wildfires and our forests from the destruction of over-harvesting, we may need to forgo the comfort and enjoyment of an open campfire.

Check the regulations and current conditions in the area you plan to explore before going and, if unsure, call the local rangers' office. Consider using a camp stove (see the section below) but be aware that even some of those options will not always be appropriate or safe.



The Careful Campfire

If you can have a campfire:

1. Use approved fire rings.
2. Be sure to clear the area of debris before use and build a fire the right size and structure for current conditions.
3. Don't show yourself to be a greenhorn by building a bonfire on a windy night. In the backcountry, special vigilance for safety is called for.
4. Have the tools on-hand for putting out the fire prior to lighting it.

Before traveling on, your fire must be fully extinguished, which is a good reason not to light one in the morning. Allow the wood to burn completely to ash, if possible. Pour lots of water on the fire until hissing stops. Be sure to drown all embers, not just red ones. If you don't have water, stir dirt or sand into the embers with a shovel to bury the fire. Using your shovel, scrape remaining sticks and logs to remove embers, and make sure that no embers are exposed or still smoldering. Continue adding water and dirt and stirring until all material is cool. If it doesn't feel cool to the touch, you can't leave it.

—*U.S. Forest Service*

Lightweight Equipment That Travels

On longer adventures, the mode of transportation, local conditions, and many other factors influence what gear you decide to bring. A two-burner camp stove may work fine if it's in your canoe, but what about in your backpack? What about on a bicycle? Not really...

When campaigning, you'll need equipment that is safe, reliable, thrifty, meets your purpose, and which you know how to use. Minimize unnecessary equipment, but don't skip on safety. The 10 Essentials are more important—not less—in the backcountry.

When putting together your gear list, look to optimize by finding gear you can share, keeping it lightweight, and getting creative.

Shared Equipment

The first place you can maximize your carrying capacity is by sharing equipment. No matter how light the shelter, it's even lighter if you carry one shelter for every two or three scouts. In some cases, one scout will carry that equipment and someone else will carry the cooking tools, but you can get creative. If using a traditional tent, one scout can carry the tent, another the poles, and the third scout will carry the rain fly.

Good equipment to share:

- Shelter
- Cooking stoves, pots, and utensils
- Water purifying systems and group water supply
- Fun items such as cards, binoculars, field guides, star charts
- Repair kits

Safe Drinking Water

You can lighten your campaigning load by using local water... but is the water safe? Water in the wild can have mud or debris floating in it, or it may be even contaminated with bacteria, viruses, or parasites. Parasites like *Giardia* and *Cryptosporidium* are harder to kill than bacteria and will require special equipment. These

parasites are so common you should assume they're in any water source you find outdoors and treat the water accordingly.

To make sure the water is safe for drinking, there are a variety of options available, generally in two categories: purification and filtration. Purification destroys a wider variety of contaminants than filtration. This is especially important if you're traveling abroad or in an area with known water-borne viruses. It's important to know that neither method will take care of chemical or other pollutants that can also be harmful. Check with local rangers to see if water is safe to use before going!



Cross-contamination

No matter which technique you use, take care to avoid **cross-contamination**. If any of your purified water touches something unpurified—such as your hands, or the portion of the filter that was in the pond or stream—you don't have pure water anymore. Washing hands or using hand sanitizer and taking care to keep unsanitary equipment separate should do the trick.

Luckily, purifying water is easy. Two simple, inexpensive, and proven methods for purifying water are boiling it (one full minute at sea level, three minutes at 3000-foot elevation) before using, or using a chemical treatment. One of the most popular chemical options is chlorine dioxide, which will kill viruses, bacteria, and *Giardia* in 30 minutes, and *Cryptosporidium* in four hours and can cost as little as \$0.13 per quart of water. Waiting four hours for pure water is fine if you add the chlorine dioxide at the beginning of the day and don't need it until the end; less fine if you

need it right away. Purifying water won't take out mud or other unpleasant items in the water, for that you'll need a filter.

Filter systems are attractive because many can pull water from shallow sources, don't require boiling, and will remove sediment as well as biological contaminants. However, most won't filter viruses, and they require care and maintenance to use safely. They also typically cost more money than purification solutions. If you're going to depend on filtering alone for safe water, it's best to look for filters that say "reverse osmosis" or are ANSI rated NSF 53 or NSF 58—these should be designed to filter out *Giardia* and *Cryptosporidium*.

Depending on your needs, you may decide to use both: an inexpensive filter for larger debris, followed by purification.

Food



6

Camp stoves are another opportunity to adjust your gear for portability. Before picking a stove, plan the type of food you'll want to prepare. Freeze-dried meals, where you just add boiling water, may seem like the easiest way to get a hot meal but they're often expensive, salty, and have poor nutrition.

What about building a pantry at home or with your patrol, where you can buy food in larger quantities and make your own meals ahead of time? That way you can prepare food you like and customize it. Build your menu around shelf-stable, whole foods that will provide nutritious, long-lasting energy.

Good Staples:

- Whole grains
- Nuts and seeds
- Nut butters
- Protein bars
- Dehydrated fruit
- Animal protein
- Jerky or other dehydrated meats
- Fish or chicken in pouches (foil packets)
- Preserved meats
- Powdered milk
- Hard, aged cheeses
- Spices

For meals that take longer to cook, a campfire or a wood fuel camp stove may be the best option. Check ahead on the rules for fires where you're campaigning. To boil water, or to simmer some food, consider a fuel-based backpacking stove. The most common types are canister, liquid fuel, alcohol, and wood-burning.

When possible, plan meals to require as few pots as possible and share meals as a group.

Cooking

There are many options for lightweight, low-cost food when on a campaign adventure. Read the section below on lightweight stoves and seriously consider planning menus around a cheap, light, and safe fuel tab stove. If campfires are allowed, stretch yourself beyond the Second Class requirements and figure out new ways to use a billy can over a fire as an inexpensive way to prepare a delicious hot meal.

Or consider no-cook meals on the trail. If safe water is available, dehydrated foods can be rehydrated in a container while you are doing other things, ready for a satisfying dinner or breakfast. Many grains can be prepared this way, including oatmeal, bulgur wheat, or quinoa, as well as vegetables. You can dehydrate your favorite fresh vegetables and fruits in the oven at home ahead of time rather than buying expensive, pre-packaged meals, and the internet has great backpacking recipe ideas.

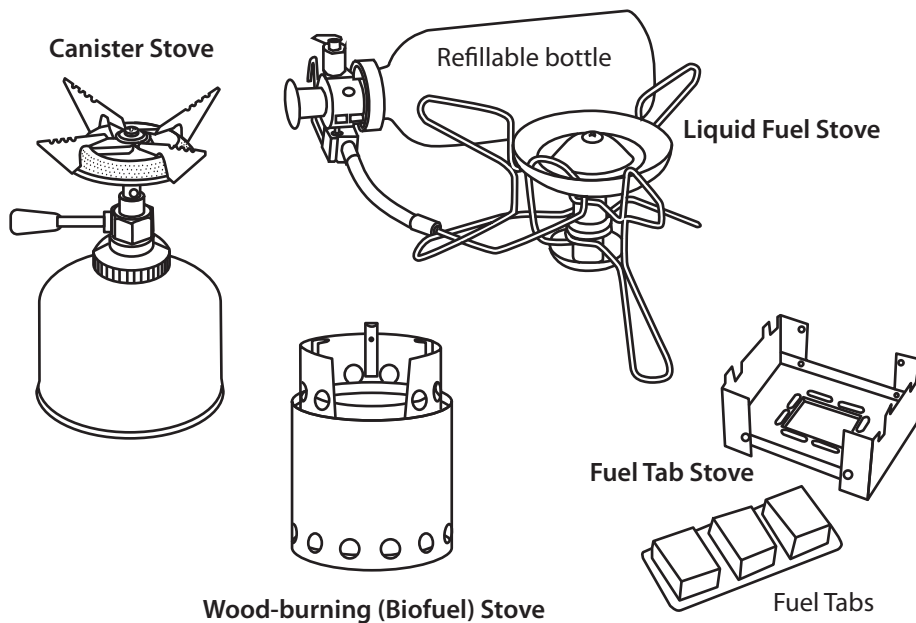
Camp Stoves

There are many different types of camp stoves for backpacking, mostly categorized by the type of fuel they use. While the number of choices can make it confusing at first to select a stove, a few simple questions can help you through:

- **Will there be natural fuel available?** If you're camping in a forest with twigs and sticks all around, wood burning stoves, or a campfire might work great for you. Otherwise, consider an artificial fuel option.
- **Will I be camping in places with high risk of forest fire?** If so, avoid alcohol and wood-burning stoves, and stick to a canister or liquid gas stove.
- **Will I be camping at high altitudes, or in very cold temperatures?** In these environments, stoves that burn liquid gas are your best bet.
- **Will I be spending time cooking, or just boiling some water for drinks and dehydrated meals?** If you're spending time actually cooking, you'll want to be able to set it to high or low and control how long. Fuel tabs may not be a great bet.
- **What's the cheapest?** If you're on a budget, a biomass or fuel tab stove may be the way to go.
- **What's the easiest to use and maintain?** Liquid gas stoves tend to take more skill to use and maintain. Canister stoves are easy to use and versatile since you can control the amount of time and flame. Fuel tab stoves may be the easiest, but it puts a lot of constraints on your cooking—you get exactly 1 tab of time and heat every time.

Canister

Canister stoves hold fuel in a canister under pressure. These stoves are lightweight, easy to use, and require minimum maintenance. With minimal moving parts, these can be very safe as well.



These stoves provide great heat for the weight, bringing a quart of water to a boil in half the time of wood or alcohol. Also, with a supply of fuel you can keep the heat going in order to cook something more than just boiling water. See if you can afford a canister stove, or if your troop's quartermaster has them available for scouts to use.

However, they are expensive relative to other options, may not work as well in cold weather or at high elevations, and add to the waste stream—usually canisters cannot be reused, although some companies now offer refillable canister systems. Reusable systems tend to be heavier, though, and therefore better for canoeing or adventures where weight isn't an issue.

Scouts should think carefully before committing to a disposable canister system, as it is not the thrifty option, and adds to the impact our activities have on the planet.

Liquid Gas

Liquid fuel stoves are similar to canister stoves, but instead being prepackaged, fuel is typically kept in reusable bottles. Liquid fuel stoves tend to be lightweight and provide a good amount of energy for the weight, bringing a quart of water to a boil in half the time of wood or alcohol.

With a supply of fuel, you can keep the heat going, allowing you to properly cook

something, rather than just boiling water. Here you can reuse the bottles, minimizing waste. Finally, these stoves tend to work the best in cold weather or high-altitude situations, and can be a good choice if you're cooking for a group.

However, they are still expensive relative to other options, and may require more fidgeting and maintenance to use. Many need to be primed, as the fuel is not pressurized, and the additional moving parts require maintenance. Usually this means the fuel canister comes with a hand pump to help you create the necessary pressure. These are not as easy to use as a canister stove but are still quite safe and can be a solid choice for both safety and practicality.

Fuel Tab

Fuel tab stoves are generally nothing more than a small metal container that can hold a pot and provide air circulation to burn the fuel. The fuel itself is a solid cube, or Tab, that is placed in the stove and lit. Tabs are typically available in 14-gram and 27-gram sizes. Both sizes burn for approximately 12-14 minutes, but the larger tabs generate more heat.

One 14-gram tab will make enough heat to boil two cups of water in about eight minutes. You can improve the heat output or how long the fuel lasts by adjusting how you use it. Check the packaging for your stove or the Internet to make sure the stove you're using is appropriate for the fuel tabs you've chosen.

Fuel tab stoves may be the most reliable, cheapest, and safest option. The big downside is that you can't adjust the heat higher or lower, and each tab only lasts a few minutes. Any scout who chooses this type of stove will have to plan their menus to work well within these limitations. Many users of fuel tab stoves use them only to boil water, and plan menus around that. With more experience, a scout can learn ways to keep a low burn going for much longer and cook food directly.

Wood-Burning

Sometimes called wood gas stoves or biofuel stoves, wood-burning camp stoves burn twigs and leaves you've gathered. These stoves typically are designed to maximize the burn and focus the heat. Assuming you're in an area that supports it, the ability to gather fuel reduces what you need to carry, eliminates the worry of running out of fuel, and can support recipes that take longer to cook.

Depending on the design of your wood burning stove, feeding more fuel can be tricky. You may have to remove your cooking pot. Also note that there is no temperature control, fuel may be wet and hard to start, or simply unavailable. Boiling times are also longer than fossil-fuel stoves.



Sample Menu

Here's an example backpacking menu using dehydrated food—you could prepare this using a fuel tab stove or any of the other stoves discussed in this chapter. This is just an idea to get you started—why not make your own menu with some of your favorite foods!

DAY 1

Breakfast: Instant oatmeal with dried fruits and nuts

Lunch: Tortilla wraps with peanut butter, dried fruit

Dinner: Freeze-dried backpacking meal (e.g., pasta with marinara sauce or chili) rehydrated with hot water from the stove

Snacks: Trail mix, energy bars, beef jerky

DAY 2

Breakfast: Instant cocoa or tea with granola bars

Lunch: Tuna or chicken salad wraps made with pre-packaged pouches, dried fruit

Dinner: Rice or couscous with dehydrated vegetables and a protein (e.g., dehydrated beans or sausage)

Snacks: Crackers, cheese sticks, dried fruit

Like alcohol-fueled stoves, these stoves are typically prohibited when there is a ban on open campfires. Always clear the area of debris and flammable substances, and make sure the stove is on a stable base, like a large rock, and won't be knocked over by wind.

These are safer and provide more heat for the fuel used than a campfire but require more skill to use than canister or liquid fuel stoves. In the right circumstances, where biofuel is plentiful and risk of forest fire is low, however, this can be a great option for more knowledgeable scouts.

Be Creative!

While it's always fun to check out the interesting gear or gadget your friend got, it's not in the spirit of scouting to turn campaigning into a competition to see who has the newest, most lightweight gear.

A more interesting challenge is to see who can do the most for the least investment, because that unleashes scouts' creativity in learning out how to build something or do without. People have made camp stoves out of empty soda cans, tents

out of a tarp, and built camping kits with thrift store finds. You can too—and learn a lot of useful skills on the way.

Knowing how to use tools, sew, mend, and train your brain to figure out creative ways of using the things you have on-hand will serve you well all of your life.

Research online for creative gear inspiration. Try several ideas out at home or on group campouts, where you have a backup plan—like another tent or your warm and safe house. This way, you can learn safely from the problems you have. Work on it with your patrol and find a few different things on the same campout.

Here are a few suggestions to get you started.

Systems Thinking

Systems thinking is all about understanding how all the parts of something work, and work together, in different situations. You might want to try practicing systems thinking when planning a campaign.

When thinking about outfitting yourself for high-adventure campaigns, consider how the whole system will work together in the environment you're planning to visit. For example, you can't use a small, ultra-light backpack until you've made the load small enough for that backpack to handle! Or a hammock might not be the best sleeping shelter in the desert. No matter what your adventure, if you're going to be camping out, take some time to consider how you can get creative with your gear in roughly this order: Water, shelter, clothing, sleeping, cooking, pack, and everything else.

Water

Most people need a minimum of two liters of water each day—more if exercising—plus you'll need water for cooking. Instead of lugging gallons of water around, review the section on how to treat water in the field so it's safe to drink. And boiling is always an option!

Shelter

Tents are easy to set up, and often roomy. Great for group camping or beginning scouts, but if you want to go farther, they may not be the best choice. What are the replacement options?

Learning to tarp camp can reduce your load to the tarp, a few stakes, and a ground cloth which can be set up on almost any terrain. Better yet, a tarp for two is not much heavier than tarp camping on your own. There are many online guides to help you get started with tarp camping. They'll teach you how to choose a site, multiple ways to pitch the tarp, and adjust it for conditions. Practice in your yard, if you have one, or with your troop before your campaign.

Also, if you're in an area with trees, consider a camping hammock. You can find a hammock for less than 1/5 the price of an inexpensive tent, then add your own tarp and mosquito netting.

Whatever you choose, the key is to stay dry and bug free. Learn to pitch your tarp or rain fly to keep the rain out whatever the weather. Sew an add-on bug net for your shelter, or get one set up that will keep the bugs off your face when under your sleeping gear. These open-air options should keep your sleeping bag and clothes free of condensation, which will ensure they stay warm as long as you can keep the outside water out.

Clothing

Clothing is a matter of making sure you have enough layers, wearing materials that won't steal your body heat when wet, and getting comfortable washing on the trail if you're out for an extended time. Clothing doesn't need to be "designed" for hiking if it fits well, is comfortable, and meets the need.

Improve comfort by dressing in layers.

- 1. Base layer:** Control moisture on your skin, reduce chafing, and keep you as dry and comfortable as possible no matter the conditions.
- 2. Middle layer:** Retain body heat.
- 3. Outer layer:** Protect you from wind, rain, snow, and other weather.

Bring all the layers on every outing no matter what the weather conditions. How you make up each layer will vary based on the conditions expected the conditions possible and knowing your own body. Layers can be added or removed as frequently as necessary to keep your body at a comfortable temperature, whatever the conditions or level of activity you're undertaking.

Avoid cotton, rayon, lyocell, tencel, viscose, or bamboo. These fibers retain water and will steal heat from your body when wet.

Always bring at least three pairs of socks: one for wearing during the day while the

other set dries, then at night put on your dry socks and air out the pair you wore all day. Save the third for when the other two pairs are wet. You'll be glad you did.

Seasonal Clothing

In cold weather, use a thermal base layer that keeps you warm while wicking away sweat. Fleece-lined tights or leggings, available at most department stores, are a good choice. You may consider fleeces, wool sweaters, and wool or insulated pants as a good middle layer, while the outer layer may include shell or snow pants, a winter jacket, and warm hat.

In rainy, cooler weather, wear lightweight polyester or a similar base layer that will wick sweat away from your body. Look to lighter-weight middle layers: a warm shirt or fleece, and hiking pants, with rain shells for your outer layer.

In summer, a shirt can be your base layer, although underwear should also be considered. Try to find underwear made from fabrics that manage sweat well. Sports bras may be more comfortable than other ones. Despite the heat, wear light-weight long-sleeved shirts and long pants, to help repel ticks and other bugs and provide additional sun protection. A good pair of "work pants" in cotton-polyester or cotton-nylon blends would work well and are inexpensive. Look for 35% or less cotton content. If they are light enough, they should still breathe and let your body cool off. Rain gear is the most likely outer layer, with a sun hat.

If your daily wardrobe needs supplementing, consider thrift stores, outlets, and army/navy surplus as options. Write a wish list of clothing you'd like to have and watch for it on sale or at your local second-hand shop. Look for polyester, nylon, and wool options in department stores. If you can't get a breathable outer shell, such as GORE-TEX, consider a poncho. Ponchos can be less expensive and are well-ventilated, helping avoid trapping your body's sweat inside.

Sleeping

There are two primary choices to make when picking out your sleeping system: your pad and your cover.

A closed-cell foam pad is one of the cheapest, durable, and most reliable sleeping pads available. To make it smaller and more lightweight, you can cut yours to size for your body and sleeping arrangement.

You can use an inexpensive sleeping bag when campaigning during temperate times of year in your area. For colder weather, make sure to get a sleeping bag

that is rated for at least 10 degrees colder than you expect to experience.

If sleeping in a hammock, a wool blanket or other cover you can bring from home might be a good substitute. If hammock camping, forgo the ground pad completely during warmer weather.

Finally, you can make something lightweight and packable that will keep you warm in colder temperatures. You could learn to sew a lightweight backpacking quilt with materials that cost one-half to one-third the cost of a high-tech sleeping bag. Use the quilt on a hammock, over a cheaper sleeping bag, or go without a sleeping bag at all on nights that won't be too cold.

Some clothing layers can be reused for sleeping, doing double-duty for keeping you warm. A fleece hat is great to have for both cold days and nights. Never sleep in damp clothes, even if they're just damp from sweat.

Tip: Stay Warm!

It's better not to camp in the winter than to go out without a good way to stay warm at night.



Planning Your Next Campaign

Ask yourself and your fellow Pathfinders these questions before your next campaign, to make sure you get the most out of it.

- **What's the goal or purpose?** This determines what kind of adventure you want to have. Maybe you want to explore a particular area or try a new type of adventure. Maybe there's a badge you and two friends are working on. Whether it's "Safely go on our first caving trip," or "Take a 4-day backpacking trip", or "Explore the Grand Canyon," these are examples of concrete goals that will help you pick good options.
- **Who's going?** Knowing who and how many people want to come on this campaign will help define an adventure. Understanding everyone's skill level for the planned activity type, physical capabilities, their ability to travel, and even their schedule all help you create an inclusive and effective trip.
- **Where will your adventure be?** This depends on your goal. If you want to explore a particular place, such as a national park, you'll need to narrow

things down. If you're looking for a particular type of adventure, use resources like the Internet, your scout leaders, and books to find good opportunities. Be sure to think about how you'll be able to get there! For example, you may only want to look for opportunities within a 12-hour drive. And, if you need adults to drive, you may need to limit the adventure to weekends or when someone is willing to take time off of work.

Research

Know where you're going, the type of conditions you're likely to meet, and the risks. Consider special gear required based on the adventure, location, and season of your visit. Learn about any restrictions, permits, or registration required for camping, fires, or other activities. Some public lands limit the number of visitors per day, and others may require reservations a year in advance, so a little planning can save a lot of disappointment.

Prepare

Does your group have the right gear, safety equipment, and maps? Do they know how to use them? If not, have day trips or classes to practice specific techniques. If you're undertaking something that requires particular skills, consider finding someone willing to act as an experienced guide.

Budget

What will your expenses be? Typical trips include costs for food, transportation, reservations, and maybe special gear. Traveling to remote locations, getting access to specialized gear, hiring a guide, or taking classes to build skills add further costs. How will you pay for it? Contributions, or maybe a fundraiser? How far ahead do you have to plan? Ideally, you don't want to exclude anyone who wants to go just because they can't afford the trip.

Each one of these factors will affect the others. For example, you could choose a goal based on who's going, or limit who's going based on the type of adventure you want. Expect to revisit discussions and change details as you work together to plan your trip. Working together, you'll be able to plan memorable adventures that are fun and safe for everyone.

Start Your Planning

Where will *you* go? What will you do? Get out a notebook and use these simple planning steps to help your patrol plan a great adventure. Use this section to help

you start an adventure planning worksheet.

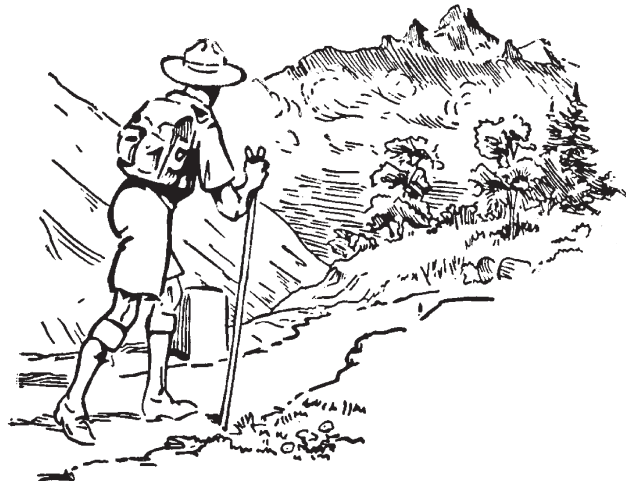
STARTER ADVENTURE PLANNING WORKSHEET		
GOAL/PURPOSE:		BUDGET:
WHO:	WHERE:	WHEN:
RESEARCH:		
SAFETY PLAN		
GEAR		
SEASON		
PERMITS		

Pick An Adventure

Backpacking

There’s something powerful in the idea that you can simply just go wherever your feet take you. Carrying everything on your back allows you to experience stepping into a completely different world and being a small part of something much bigger. Here, you need to rely on yourself and your small group to get safely to your destination. Explore deep forests, the great plains, canyons, or deserts. You may be following the path of a brook, watching the light filter through the forest canopy, or scrambling up rocks to the summit where you can see for miles.

Trips may be to get away for a weekend, a week exploring the interior of a national park, or a months-long hike on the Pacific Crest or Appalachian trails. The Appalachian Trail runs from Georgia to Maine, a five to seven month journey for most hikers. Grandma Gatewood, the first woman known to have hiked alone, brought only a 17 pound pack and did it the first





Practice!

Plan small, short trips first and measure how far you're able to hike in a day—including rest stops. And, when first planning longer trips, choose areas where there are options to switch routes to a shorter trail in case it's harder than expected. Your experience with your own body and gear is the best guide. The Hiker special proficiency badge is a great place to start.

time at the age of 67. Often our bodies are capable of more than we know. What's around that you can explore?

Planning for a backpacking trip is different than a regular camping trip. Regulations in your area may be different for backpacking than camping. For example, in Pennsylvania state forests, no permit is required if you don't stay at a site for longer than one night. Some places only allow you to tent at established sites, while others may let you tent anywhere as long as you're following "Leave No Trace"

guidelines. Be prepared: find and learn the rules and regulations for the area you'll be visiting.

When planning trips, it's important not to overestimate how far you can travel when hiking with your gear. Elevation changes and other landscape features should be considered—you may be able to hike 10 miles on flat terrain, but only six climbing a mountain.

Water Sources

Another important consideration is mapping out your water sources, and making sure you have safe water to drink. (See *Safe Drinking Water*, page 181, for more information.) Water can be one of the heaviest items in your pack, so having opportunities to refill, rather than carry it, can make a big difference. Also, streams and springs marked on a map may be seasonal or affected by unusual recent weather. Whenever possible, check conditions with the local ranger before you go.

Gear

Most backpacking gear is the same you would use for camping but, ideally, more lightweight. All the 10 Essentials are there. Simple solutions, and options for making your own gear, can keep it affordable. A good tip is to keep your full pack to under 20% of your body weight, although this can be especially difficult for younger scouts. Talk with the more senior scouts in your group or your scoutmaster to review your equipment and skills when getting ready.

Pay special attention to your backpack and test it beforehand, as a poorly fitting pack can hurt your body and even leave you stranded on the trail miles from help. Ultra-light backpackers with years of experience can often hike long distances with a simple, lightweight, minimal pack. If you and your patrol can get comfort-



Fit Your Backpack

To help your legs carry much of the weight, get a pack with a hip belt where the belt and belt padding are centered on your hip bones. Packs are not “one-size fits all.” You’ll need to take some measurements and choose a pack that fits best for you. Younger Pathfinders may want to look at backpacks designed for youth or women, as they are designed to fit well on people with smaller torsos. Your torso length is basically measured from the top of your shoulder over your armpit down to the top of your hip bones. Typically, scouts with torso measurements up to 15 inches should be looking for an extra small backpack, and even 16–17 inches will want a small pack. Check the specifications for the backpacks you’re looking at to make sure that you’re buying the size meant for your torso length and waist size. Backpacks designed for women have shoulder straps designed to accommodate breasts better than those that are labeled unisex.

able with simple, lightweight gear you may find this works well for you, and there are a lot of resources available to help you learn how. REI Co-op has great articles online on ultralight backpacking basics. Others may be carrying more gear and need a pack that can distribute the additional weight appropriately across your body.

Packs come in various sizes, of course, and their carrying capacity is measured in liters. Although the sizing of the pack for your body is related to how much it can carry, this is not the same as the carrying capacity. It’s important not to overload your pack, as you can hurt yourself, and it makes the trip much less fun! With careful planning, young scouts under 15 should be able to make do with a “week-end” pack designed to carry 30-50 liters. Popular adult backpacks are designed to carry 50-80 liters. Packs above 70 liters are meant for trips that last a week or more.

Finally, make sure that the gear in your pack is protected from rain or other precipitation. You can buy or make a rain cover for your pack. Another good solution is to line your pack with a couple of heavy-duty garbage bags, then stow your gear in the bags (or at least the gear that shouldn’t get wet) and seal the bags. If using this method have the bags inside your pack, rather than using plastic as a makeshift pack cover, to avoid obstacles along the trail snagging and ripping holes in your rain protection.

Canoeing / Kayaking

One of the unique aspects of Earth is the abundance of liquid water. Our seas, rivers, and lakes shape our world, influencing all life and human civilization. As a scout, you can paddle the same waters that have provided people with transporta-

tion routes and sustenance for thousands of years and meet the animal residents who still reside there today. Smaller lakes and slow rivers create campaigning opportunities for even novice paddlers. Bigger lakes/chains like the Boundary Waters in Minnesota offer space to explore vast regions, sometimes carrying or rolling your boat (called portaging) between lakes.



**National
Water Trails
emblem**

Protected seas, such as the San Juan Islands in Washington, allow paddlers to explore saltwater habitats while island hopping and maybe even the chance to see an orca pod up close! Longer rivers like the New River that runs from North Carolina through Virginia and into West Virginia offer scouts paddle campaigns to cover long distances, with towns, waterfalls, historic sites, and other stops to enjoy along the way. If you are looking for ideas and inspiration, check out the National Water Trails System, a network of water trails around the United States that are open to the public to explore and enjoy.

Take Your Time

It requires an investment of time for scouts to become proficient in canoeing and kayaking. Earning your Canoeist, Senior Canoeist, or Kayaker badges will equip you with the knowledge and the skills you need to stay safe in water trekking. Each type of boat has paddle strokes and techniques that make your trip safer and more enjoyable; watch a video on “kayak roll” and “canoe j-stroke” if you want to see some advanced moves you can set your sights on! But be sure to only practice under the supervision of a qualified instructor.

When you have a trip in mind, find out what the water conditions, likely weather, and typical hazards are ahead of time, then find a local place where you can go on day trips to practice your skills gradually and safely in similar conditions. Be sure to practice paddling with loaded boats and include a “shakedown” overnight trip to try out your individual and group gear, and how you’ll pack it in your boats for the bigger campaign trip. Knowing how to swim is perhaps the most useful safety skill to have while paddling any type of boat.

As you’ll read in the next section, there are many kinds of bicycles for different types of riding and boats are no different. Many canoes and kayaks are designed to perform best in particular types of water. Ocean-going sea kayaks and lake touring canoes are long, narrow, and fast—but not designed to turn quickly. Canoes and kayaks designed for rivers with rapids and rocks have turned-up ends (called *rocker*) to allow for quick turns. They sacrifice some speed but remember, the river itself is moving your boat towards the next camp so boat speed is less important.

Find out what kind of boats your patrol has access to, and what kind of places you could campaign with them. You can also flip that; what kinds of boat would be best for the trip you are dreaming about—and how can you rent or borrow or even *build* them? Transporting your boats and/or gear to your campaign waters can be an important planning point to consider. Some organizations have special trailers to carry canoes or kayaks. See if you can find a guide, state park, or other group that can affordably transport watercraft for your scout group.



Gear

While much of the camping gear for paddle campaigns is similar to backpacking or bicycle touring, the risk of it getting wet is obviously much greater. Waterproof buckets, cases, and dry bags are the typical tools for keeping your clothes, food, and bedding dry. Food grade 5 gallon buckets with screw lids work well and are less expensive.

Kayaks, with their sloping decks and access hatches, offer fairly limited room for gear so packing is minimalist. Like backpacking, with items are placed in many smaller waterproof bags that can be fitted through small oval hatches. Canoes often have larger carrying capacity and allow you to include some bulky or heavy things that you'd never carry on your back, like two-burner patrol stoves, propane tanks, firewood, and camp chairs. Whatever you pack, make sure that your canoe doesn't ride so low in the water that small waves or movement allow water over the sides. If your canoe is big enough and you travel light enough, you might also opt to carry an extra scout!

Some lakes and rivers, especially in national parks, are in such high demand that special permits are required. Sometimes there's even a lottery system, so know the deadlines for applying and always have a backup plan for another no-permit location if the first destination falls through.

Climate change and bad luck can also be factors: low water and wildfires have caused Pathfinders to cancel or alter paddle campaigns. "Be Prepared" is a useful motto for trips on the water. Fortunately, many rivers and lakes are quite easy to



Paddling Water Classifications

Knowing the likely conditions of the waterway ahead of time is helpful as you plan your trip. The International Rating System classifies rapids—the fast-moving segments of bodies of water—into six levels. Most scouts should consider avoiding rapids higher than Class II unless they are with an experienced guide.

Class A: Lake water. Still. No perceptible movement.

Class I: Easy. Smooth water; light riffles; clear passages, occasional sand banks and gentle curves. The most difficult problems might arise when paddling around bridges and other obvious obstructions.

Class II: Moderate. Medium-quick water; rapids with regular waves; clear and open passages between rocks and ledges. Maneuvering required. Best handled by intermediates who can maneuver canoes and read water.

Class III: Moderately difficult. Numerous high and irregular waves; rocks and eddies with passages clear but narrow and requiring experience to run. Visual inspection required if rapids are unknown. Open canoes without flotation bags will have difficulty. These rapids are best left to canoeists with expert skills.

Class IV: Difficult. Long and powerful rapids and standing waves; souse holes and boiling eddies. Powerful and precise maneuvering required. Visual inspection mandatory. Cannot be run in canoes unless the craft is decked or properly equipped with flotation bags. Advance preparations for possible rescue work are important.

Class V: Extremely difficult. Long and violent rapids that follow each other almost without interruption. River filled with obstructions. Big drops and violent currents. Extremely steep gradient. Even reconnoitering may be difficult. Rescue preparations are mandatory. Can be run only by top experts in specially equipped whitewater canoes, decked craft, and kayaks.

Class VI: Extraordinarily difficult. Paddlers face constant threat of death because of extreme danger. Navigable only when water levels and conditions are favorable. This violent whitewater should be left to paddlers of Olympic ability. Every safety precaution must be taken.

get permits for, or don't require any at all. Odds are good that you have an amazing river, lake, or reservoir that you can explore not far from where you live... but always check availability and weather first.

Scouts who are new to paddling are often surprised by how much wildlife lives along the shores of our rivers and lakes. If you keep your voices down and paddle without splashing, kayaks and canoes are very stealthy. You can silently round a

bend see all kinds of animals and birds, sometimes only a few feet away. Seeing an osprey, bald eagle, or other fishing bird dive into the water close to your boat and come up with dinner is something you'll never forget. Be sure to research the plants and animals that live where you plan to paddle, so you'll recognize them when you meet during your adventure. If weight constraints allow, consider bringing field guides in a waterproof bag.

Rivers and lakes each have their unique benefits, but they also present challenges. The moving water of rivers creates unique hazards because even when you are not paddling, your boat continues to move toward any hazards that lie downstream. Boaters should always check the weather forecast and plan routes that avoid the worst wind and waves.

As you gain more experience, you'll be able to "read" the water and recognize hazards that are approaching, and maneuver or prepare for them with time to spare. As with any campaign, having good maps, knowing how to use them, and keeping track of where you are is very important. Make note of great campsites, lunch spots, and water hazards so other scouts can have the benefit of your experience. It's a good idea to write up a report and share it with other patrols and troops.

Safety

Traveling by boat requires specialized safety equipment, plus practice in how to use this equipment. Personal flotation devices (PFDs), throw ropes, and bailers are standard for both kayaks and canoes. Longer trips and some waterways require more advanced items like signal flares, VHF (Marine) radios, and even boat lights.

Patrols who are paddling far from civilization sometimes carry satellite phones or distress beacons. Find out in advance what you'll need and learn how to use all of it. One of the best ways to pick up these more advanced skills is to find someone in your community with the right experience and ask if they'll teach you. Many adults are happy to take time to share their knowledge with interested scouts.

Some trips will allow you to stop occasionally and use established bathrooms, and some will require you to bring a portable toilet system, often called a *groover* on your trip. As with other types of camping, your goal should be to "Leave No Trace." Once again, plan ahead and learn about the conditions you'll be facing.

Bicycle Touring

Do you like bicycling? Cycling can be a great way to experience a campaign. With a bike, it's possible to travel further distances, so you can see more landmarks or



Find a Route

“Rails-to-Trails” routes are an excellent choice. These routes are closed to motor vehicles and because they were originally engineered for trains that struggle with steep hills, the grade changes are gradual, making the ride easier. Some examples are the Great Allegheny Passage Rail Trail and the Chesapeake and Ohio (C&O) Canal towpath. Combining the two you can ride 300 miles from Pittsburgh, Pennsylvania to Washington, DC.

points of interest on your trip. For an experienced rider—someone who knows the rules of the road and has shown on multiple longer trips that they know how to ride safely—there are roads everywhere that can be used for biking. However, for safety, choosing roads with bike lanes, wide shoulders or light traffic should be considered first.

Planning a bike journey is quite similar to organizing a backpacking

trip. You need to choose your route and research where you can camp. Riding a bike carrying gear requires more effort, so you may not be able to ride as far as you otherwise could. Plan someday rides with your camping gear to get a feel for how far can travel in a day and build your stamina. The ride you plan will affect what resources are available en route.

If you are traveling on roads, water will be less of an issue, but camp sites may be harder to find. Alternately, cycling on a trail tends to make camping easier, but, as in other campaigning, you need to plan for your water sources. Beforehand, you should also learn the locations of bike shops or hardware stores on the route in case you have mechanical troubles. Earning your Cyclist special proficiency badge will prepare you for making many on the go repairs.

The Right Bike

One difference between hiking and biking is the matching of trail and bike. A pair of good boots may work for nearly all trails, but bikes can be specialized. Generally, a road bike with narrow tires will struggle and potentially be dangerous on gravel paths or dirt trails. Mountain bikes with larger tires handle a variety of terrain, but the knobby tires will make you work harder on pavement than a smooth road tire. Finally, there are hybrid bikes with features of both road and mountain bikes. Hybrid tires are often more knobby and wider than a road tire, but not as much as a mountain bike tire.

Matching your tires and bike to your journey will lead to a better trip. Be sure you’re comfortable with your bike and learn what kinds of surfaces you are comfortable riding on it. This can help you choose whether to do a paved path or gravel trail for your journey. If you need to purchase a bike, research not only what style of bike will best suit your goals, but also what size fits your body. Take advantage of the many options to buy used equipment but buy a bike that works with

your size and your goals. Riding a bike that is either too big or too small will make it harder to pedal and maintain a comfortable pace.

Other Gear

You'll also need to carry your gear with you. While it is possible to use a backpack with a bike, it is not the best option because you'll have a high center of gravity. This can make riding and maneuvering difficult. It will also make it harder to avoid an accident with a sudden change in direction.

A better choice is *panniers*, which are bags that fit over a bike's front or back wheel. They usually attach to a bike rack above the back wheel. Panniers keep the center of gravity low for better maneuvering and stopping. Panniers should be packed with the weight balanced side to side, so that they don't throw off your balance. Also, if you are using both front and back panniers, the back should be heavier to help maintain control braking. If your bike is unable to hold panniers, you can tow a small cart behind you. You should practice loading gear onto your bike and riding it short distances to learn the best way to balance your load. You'll need to experiment with what goes where.

Water is one of the heaviest items on the road, so consider carefully where you'll place it. Using a water bottle holder on the bike is important for hydration as you ride. But if you need to have additional water in your panniers, it may be best to have a bottle on each side, rather than on only one side. Plan to alternate using them, to keep the load balanced.

The camping gear for biking is the same as backpacking. However, you also need to take care of your bike. Carry the tools needed to complete basic roadside repairs, including fixing a flat tire. Plan ahead and only carry the tools you need and know how to use them.

Whether you're touring on roads or bike packing up mountains, journeys on a bicycle are fun and make it easier to travel farther for most scouts. When riding with other scouts, it's important to agree ahead of time how spread out your group may be, and where plus how often you'll stop and gather for check-ins. Do you need to be able to always see each other, or will trails make that impossible? Be sure



Bike Repair Tools

In general, you should carry a patch kit and/or replacement inner tube, air pump or inflator, as well as tire levers, wrenches, screwdrivers, and Allen keys for the bolts and fittings on your bike (multitools are available). For some journeys, it may be advisable to carry a few spare wheel spokes and a spoke tool to repair wheels. While rare, carrying extra weight can make a broken spoke more likely. Finally, having a few emergency supplies, like heavy weight zip ties and duct tape, may allow improvised repairs that will get you to a bike shop.

everyone in your group knows where you plan to camp, and what to do if they get separated from the group.

Riding quickly can mean you cover more ground, but it is important to get there with your entire group. If someone needs to make repairs, the entire group will need to wait until the repair is made.

Climbing

“Every mountain top is within reach if you just keep climbing.”

—Barry Finlay

Non climbers often ask, “Why would anyone want to climb that?” Climbers attempt to explain that those willing to put in the work receive the greatest rewards. This can be taken literally, or you could take this as a metaphor for overcoming difficult situations you may encounter in life.

Sometimes the reason for climbing is simply the challenge, the opportunity to stand where very few people have ever been before. It may be an amazing view from the summit or the chance to be outside in nature, immersed in the remote hills and mountains. Scientists and explorers climb to study rare animals, the Earth’s geology, or update old maps. Some climbers enjoy the technical aspects and problem-solving of climbing. Finally, some people climb simply “because it’s there,” as stated by early mountaineer George Mallory, who climbed Mount Everest in 1924.

Generally climbing can be broken into two disciplines, *rock climbing* and *alpine mountaineering*. We’ll mostly discuss rock climbing here, as rock climbing is more available to beginners. If you really get into rock climbing, you may choose to move into mountaineering at some point.

Both disciplines share some similarities. Each often require a rope, knowledge of knots, and other specialized safety equipment to protect the climber if they fall. Each require skills and equipment you may have already used from patrol camping, backpacking, or hiking adventures. Usually, climbers have to hike a great distance to reach the climbing area and they may camp and climb multiple days. Each sports requires physical fitness and mental strength. Where they differ is in the environment. We’ll briefly explore each discipline separately.

Rock Climbing

Rock climbing is the act of scaling a vertical rock face. Climbing routes are given

a rating or grade that describes the difficulty of the grade and its level of danger. Class 5 climbing is what people think of when they imagine vertical rock climbing.

Route classifications include:

- **Class 1:** Walking an established flat, easy trail.
- **Class 2:** Hiking a steep incline, scrambling, maybe using your hands.
- **Class 3:** Climbing a steep hillside, moderate exposure, a rope may be carried but not used. Hands are used for balance. A short slide down could be possible.
- **Class 4:** It is steeper yet exposed and most people use a rope due to the potential of long falls. Hands are required to assist upward movement.
- **Class 5:** Climbing is technical and rope protection with a belayer is required. This is not for a novice. Any fall from a Class 5 could be fatal.

Class 5 climbing routes are further classified into ratings from 5.1 to 5.15. 5.1 to 5.4 are easy. They go on up incrementally through 5.15, which is considered the most difficult technical climbing route. These routes are only for expert climbers in top fitness.

Class 5 climbing requires a helmet, rope, and the climber to wear a harness to attach one end of the rope. The other end of the rope runs through anchors to the climber's partner, known as *belayer*. The belayer, using their own harness, will hold the rope and catch the climber if they fall.

The methods used to protect the climber from a fall are either *sport climbing* or *traditional climbing*.

Sport climbing is done in a rock gym, and in some outdoor areas as well. Gyms are a perfect place to begin your climbing journey. Rock gyms offer lessons, skill clinics, rent equipment and they are a safe place for beginners to establish a basic level of experience and skills before they venture out to a natural climbing area on their own.

The term *sport climbing* means the safety devices that the climber's rope runs through, called anchors, are already pre mounted on the route. In a rock gym they are bolted to the wall and in natural sport climbing areas anchors are drilled and epoxied directly into the rock face. The climber's partner or belayer holds the

rope to prevent the climber from hitting the ground if they fall.

Traditional climbing means the climber must find cracks and other fractures in the rock along the route, and place temporary anchors into rock cracks to hold the rope in the event of fall. These anchors are called cams, stoppers, or nuts.

This type of climbing is called *traditional* because early climbers used this technique well before people began bolting anchors to the rock. Some traditional climbers frown upon sport climbing bolts and anchors, as they say it takes away the aesthetic beauty of rock and their perception of the purity of climbing.

The climbing discipline spans several subdisciplines that are also popular:

- **Bouldering:** Bouldering is a popular sport that has evolved from the climbing world in which short, low to the ground routes are established—usually only a couple of moves—that do not require a harness or rope. Oftentimes a partner who acts as a spotter or a simple crash pad for bouldering will suffice to protect the climber in the event of a fall.
- **Ice Climbing:** Ice climbing is where climbers use ice tools in their hands and specialized spikes on their feet (called crampons) to climb frozen vertical water. This is usually a waterfall or constructed frozen water feature.

Alpine Mountaineering

The second type of climbing is alpine mountaineering. This is more what you've heard of famous explorers doing and requires a set of very advanced climbing skills. Alpine mountaineering involves navigating a snow and ice covered mountain to reach the top.

This climbing discipline requires not only advanced knowledge of outdoor skills, but also the rope use, knots and traditional and sport climbing skills described above. Mountaineers will often use specialized tools to aid them in reaching the top. Crampons provide traction on snow and ice. Ice axes help the climber balance while walking up hill, but they are also a necessary safety device. Should the climber lose balance they can perform an emergency procedure called a self-arrest and sink their ice axe into the ice to stop their fall and prevent them from sliding down the mountain.

A helmet is strongly recommended during *all* climbing activities, including bouldering.

If your interests lead you to pursue climbing activities, you can count on meeting

big challenges and finding great personal satisfaction and a sense of accomplishment. Get some training. Your scout group can hire a guide or take a class at your local climbing gym or outdoor crag. Climbing requires some specialty equipment plus safety gear that is expensive to purchase, so at first consider renting equipment or using a guide who can provide the gear. Finally, know your area and the land use laws and rules for that location.

Caving

Caving is an opportunity to explore wild parts of our world that are unlike anywhere else you'll ever go as a scout. Water, rock, and geological forces can combine to create amazing, beautiful, and wondrous creations. It just takes a bit of work, and some planning, to find them.

Safe Start

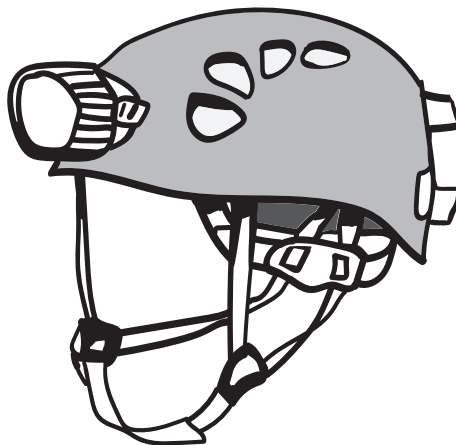
It's a good idea to start by checking out the inside of a cave as safely as possible, so maybe first find a local commercial cave. Conduct a local internet search, ask for help from a scout leader, or find and contact a local grotto (local chapter of the National Speleological Society) to begin your caving experience.

When you're ready to start exploring wilder caves, prepare by researching how to minimize the impact of your adventure on the ecosystem you intend to visit. Plan your trip and make sure everyone has the right gear. When exploring a new cave for the first time, find a guide who knows the cave, and is experienced and comfortable leading youth groups. Otherwise, much of trip planning will be the same as for any other campaign—let someone know where you're going and when you expect to be back, make sure several members of your group are familiar with first aid. However, caving can lead to some special situations you should be ready for.

Gear

Start with a helmet, one with a good strap. The strap should be a four-point strap that goes under the chin, and rests on both sides of, or covers, the ears. Helmets should be International Climbing and Mountaineering Federation (UIAA) rated in the United States. Many have a good mount for a head lamp.

Caves are dark, mostly (you probably already knew that). It will be hard to find your way out in the dark, so be extra



sure each person has at least three light sources, with spare batteries and bulbs. Helmet-mountable head lamps are ideal.



Words of Wisdom

Experienced cavers have a saying, “On every trip, there are two caves—the one from the entrance to the turn-around point, and the other from the turnaround point back out.”

Speaking of getting out, you’ll also want to bring a compass, since your GPS or cellphone based navigation might not work underground. As scouts, we mostly talk about using a compass above ground, but it’s easy to get turned around underground. There’s no sun to guide you, and the landmarks can seem very similar. This

means you need to pull out your compass and take frequent bearings, so you know how to find your way out. The cave can look very different coming from the other direction.

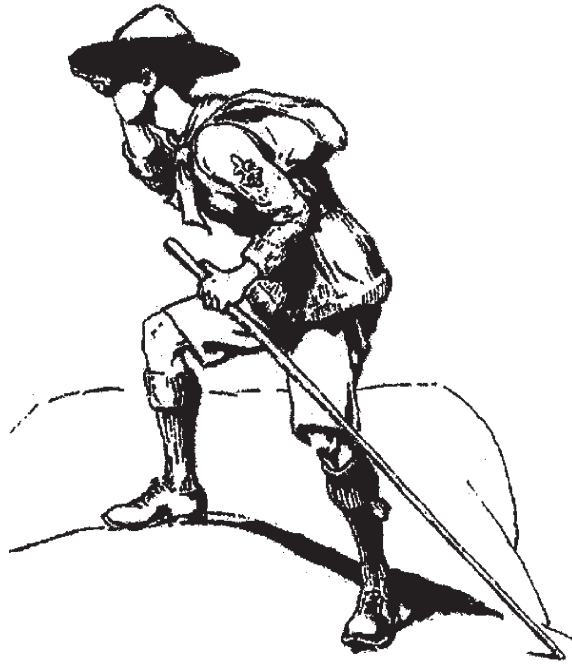
Always bring a long length of sturdy rope, whether or not you’re planning to do any climbing. If someone falls and it’s not easy or safe to just go down after them, you’ll be glad to have it. You’ll also be happy you studied all those knots.

Knee pads are a must for crawling through, over, and around, while keeping three points of your body in contact with stable objects as you move over uneven terrain. Elbow pads are probably a good idea as well. Your knees and elbows are some of the most vulnerable parts of your body after your head, and it can be hard to make your way back out over difficult terrain if you’ve injured any of them.

Clothing should be sturdy, and able to handle both cold and wet conditions. It’s typically much cooler underground, even during the heat of summer. That means sturdy hiking boots with good tread, sturdy pants and long sleeve shirts with fabric that will stand up to abrasions and mud, and wool socks. As you explore further, the National Speleological Society is a great resource to learn more and grow your caving skills.

Get Outside

The natural world that awaits you in any of these campaigning adventures will provide you with a framework for problem solving and make you a better scout, better citizen, better friend, and self-sufficient human being. Be prepared to experience



great things on these outings. A campaigner does not conquer the elements, conquer the mountain but rather embraces them. Why not try a campaign with your patrol to see if it's your thing?

End of Chapter Reflection Questions

- What's the difference between camping and campaigning?
- What's one kind of place you could explore that you haven't thought of before? What would you have to do to make that happen?
- What are some things to consider beyond the 10 Essentials when planning a campaign?
- What sorts of campaigning adventures do you think you and your patrol would like best?

PART II



11

SECOND CLASS

Once you have completed your Tenderfoot requirements and earned your Tenderfoot badge, you can move on to Second Class training. The Second Class requirements are considered basic, traditional scout skills, and include first aid, signaling, tracking, cooking, knife and axe handling, and more.

Second Class comes before First Class in your scout path, much like Second Lieutenant comes before First Lieutenant in traditional military ranking. You must earn Second Class before you earn First Class.

While working toward Second Class, a Pathfinder can also work on, and earn, up to two special proficiency badges. There are over 65 badges to choose from, so you are sure to find a specialty you are interested in. See the full list with requirements in Chapter 21.

Second Class Requirements

Use the following two pages to record your progress toward Second Class. You will find many references to the other sections in this handbook to learn and practice each subject. After the requirements table, you will find specific details regarding some of the Second Class tests.



SECOND CLASS

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Know Second Class First Aid. (See Chapter 12.)

- a Know the general rules for health.
- b Understand and explain the universal steps of providing first aid.
- c Demonstrate the concept of RICE as a treatment and discuss when it is appropriate.
- d Be able to treat the following injuries:
- | | |
|---|--|
| <input type="radio"/> 1 Cuts and scratches | <input type="radio"/> 5 Burns, including sunburn avoidance |
| <input type="radio"/> 2 Cleaning and dressing a deep cut or wound | <input type="radio"/> 6 A nosebleed |
| <input type="radio"/> 3 Bruises | <input type="radio"/> 7 Stings and bites |
| <input type="radio"/> 4 Sprains and strains | |
- e Describe examples of improvising first aid supplies in the backcountry.
- f Demonstrate placing someone in the recovery position, and discuss its importance and when it should be used.

2 Demonstrate proficiency in **ONE** of the following signaling methods. (See Chapter 13.)

- a American Sign Language (ASL)
- b Morse Code
- c Semaphore

3 Choose **ONE** of the following:

- a Track a trail, person or animal, for ½ mile in a reasonable amount of time.
- b Remember 16 of 24 items given 1 minute of observation time.

4 Explain Scout's Pace and what it is used for. Time yourself at Scouts' Pace or your own pace for a mile and discuss how to use pace to estimate distance when hiking. (See Chapter 16.)

CONTINUED...

-
- 5** Successfully demonstrate the following knots or lashings. (See Chapter 4.)
- a** Square lashing
- b** Diagonal lashing
- c** Timber hitch
- d** Taut line hitch
- e** Angler's knot
-
- 6** Build a fire using no more than two matches and natural tinder. (See Chapter 14.)
-
- 7** Make a stew or multi-course, hot meal over an open fire. Meal should be suitable for the scout and pre-approved by Examiner.
-
- 8** Earn The Wood Tools Proficiency Card. (See Chapter 15.)
-
- 9** Demonstrate the use of a compass (see Chapter 16) and
- a** Know the 16 principal points.
- b** Identify the five basic parts of a compass.
- c** Measure a bearing to an object.
-
- 10** Have at least one month's satisfactory service as a Tenderfoot and re-pass the Tenderfoot tests.
-

Signaling Test

A Pathfinder demonstrates proficiency in signaling by performing the correct signal for each letter in the alphabet as well as for each number. You should also have the ability to send and receive a simple message. During your testing you should explain to your Examiner the value or benefit of knowing how to communicate with people using each of the different methods.

For more details and charts of signaling codes, see Chapter 14.

Tracking and Observation Test

The idea behind the third Second Class requirement is to learn the practice of tracking. This can be arranged by having another scout or adult leader wear irons, crampons, or other heavy material attached to their boots or shoes. This makes the prints and tracks somewhat easier to make and to distinguish. If this can't be arranged, it is feasible to consider making a half mile track using the woodcraft trail signs and other markings.

In following a trail, you should practice following simple signs for a short distance, then later on you'll find that it is possible for you to carry on for longer distances.

You can learn more about tracking in Chapter 3.

An alternative to tracking is testing a Pathfinder's observational abilities with a See and Remember game. In See and Remember, a scout must remember 16 of 24 items given 1 minute of observation time.

See Chapter 5 for an in-depth description of this activity.

Here are some tips for See and Remember:

- As with following a trail, go slowly. It is no use starting off with the full number of articles required in this test. Start with a dozen articles and take your time in looking at them and then see how many you can remember. Then you can add some more and see how successful you are.

- As with most things, practice makes perfect and you'll find that, after practice, it will not be difficult to pass your See and Remember game.
- It is necessary to make one point quite clear and that is, when you write down what you have seen, you must state quite clearly what the article is, giving as much information about it as you can.
- A tip that might help you is to look at the smaller things first. You'll remember the larger articles far more easily. Do not hurry over your observation.



12

FIRST AID

This chapter is intended to be a comprehensive first aid manual which the scout and scoutmaster can use for their personal training. Where noted, obtaining a certification from a recognized course will suffice for the required training. Although there are several sections, aligned with the requirements for badges, if a scout is interested in this topic, they can work through this chapter to improve their skills at their own rate of progression.

Throughout this manual, *first aid* refers to the initial treatment given by scouts to a sick or injured person before professionals arrive, or before the hurt person can get to a hospital. With minor problems, quality first aid is usually all that is required. However, in more serious problems, first aid is a crucial bridge to more advanced care.

Scouts should know and practice basic first aid skills. These skills will enable them to deal with everyday accidents that happen at home, school, or at camp. If suddenly faced by an accident or a call for help, instead of being confused and afraid, a scout is prepared to safely jump into action correctly to provide a basic level of care.

In all serious accidents, the injured person needs to be evaluated by a professional health care provider. Always let your scout leader know if someone is hurt or you rendered first aid to a fellow scout. Please remember that scouts never stop learning or practicing their first aid skills. First aid is a lifelong set of skills that takes regular practice and continual learning.

Guiding Principles

- First aid procedures often evolve, change, and are updated. Ensure you're using the most up to date first aid protocols and treatments. New information may supersede the information in this manual.
- All training materials need to fit into this manual's First Aid Chapter, so they are available to scouts. However, trainers have the option to use resources available online, from the library, or resources available in their community from, for example, a local fire department or ambulance company.
- Second and First Class requirements are first aid skills that can be taught and evaluated by a scoutmaster, lay person, or parent, without incurring a cost for certified training.
- The First Aid special proficiency badge requires a formal certification. It is optional and Pathfinders may find that there is a cost for certification. This is a certification that must remain "current" to continue to wear the badge. Often certifications are required to be renewed every two to three years.
- Always consider modern American liability risks and investigate the good Samaritan laws in your state. Generally, people who are not compensated to render care as a job are protected by good Samaritan laws if they help someone, as long as the first aid provider works within their scope of practice. In other words, don't do things you're not trained to do. You must also gain consent of the person you're helping. Consent, from a medical perspective, is explained later in this chapter on page 221.
- It is this manual's recommendation that scout leaders consider taking a formal first aid course and keeping the certification current. Courts have historically found scout leaders responsible for protecting their youth and good Samaritan laws may not apply in cases involving scout leaders. Regular training is necessary to stay up to date. A current certification is proof of continuing education and training, but also another layer of legal protection to the leader and scout group.

Below is an overview of how the program teaches first aid, beginning with the basics for the Second Class badge, providing more advanced concepts for the First Class badge, and reaching the highest level of achievement with the First Aid special proficiency badge.

Second Class

These are the basic first aid skills required of younger Pathfinder scouts. This training allows them to start being independent and provide care to themselves, while still under supervision of their scoutmaster. Second Class training in first aid is vital as scouts begin to participate in longer and more remote outings as patrols. This is also necessary because scouts are beginning to use knives and axes.

First Class

These are skills for scouts working toward being independent on their First Class Journey. These scouts are at least 14 years old. The skills and abilities are aimed to take care of more complicated emergencies, or to begin taking care of someone else. These are skills that can be taught and evaluated sufficiently by a scoutmaster or a Rover, so a scout can obtain the level of First Class without incurring the cost of a first aid certification.

First Aid Special Proficiency Badge

This badge expects the scout to earn a formal certification that is maintained and active to wear the badge. Courses are usually based on a two-year cycle to re-certify. An accredited, 16-hour wilderness first aid course (or equivalent) should be considered the gold standard to earn this badge. However, a formal course in any format from a credentialed instructor will suffice. Since this badge is optional, scouts accept they may incur a cost to earn this badge. Scouts may pursue this badge at any time after their Second Class requirements are complete and they've met any other prerequisites for the formal course they wish to attend.

Scouts that hold a current First Aid special proficiency badge are considered to have passed the first aid requirements for both Second Class and First Class, as that badge provides a level of training inclusive of the Second and First Class tests.

A Comment on CPR

Formal cardiopulmonary resuscitation (CPR) training and certification is strongly encouraged for scouts and scout leaders. However, CPR is often not included in some versions of first aid classes. It can instead be taught as a separate class. For this reason, Hands-only CPR compressions are explained below in the First Class requirements on page 261. For scouts seeking formal first aid training, please ensure you're registering for the type of training you want, and that it includes CPR.



Second Class First Aid: “Be Prepared”

The Second Class first aid requirements are the basic skills even the youngest Pathfinder can perform. These can be evaluated by a scout leader. This section is generally focused on the prevention of injuries and the ability to take care of their own, or their Patrol mates', small accidents.

Second Class Pathfinders should explain and, where applicable, demonstrate the following first aid skills.

- a. Know the general rules for health as given in the chapter on Health and Well-Being (Chapter 8) and explain them to your Examiner.
- b. Understand the universal steps of providing first aid and explain them to your Examiner. (See below.)
- c. Demonstrate the concept of using *Rest, Ice, Compression, and Elevation* (RICE) as a treatment and discuss when it is appropriate. (See page 222.)
- d. Be able to treat the following injuries:
 1. Cuts and scratches (See page 223.)
 2. Cleaning and dressing a deep cut or wound (See page 223.)
 3. Bruises (See page 224.)
 4. Sprains and strains (See page 225.)
 5. Burns, including sunburn avoidance (See page 225.)
 6. A nosebleed (See page 227.)
 7. Stings and bites (See page 227.)
- e. Have knowledge of improvising supplies in the backcountry. For example, specifically demonstrate using your necker as a triangle bandage to make an arm sling, wrap a knee, head, and foot. (See page 228.)
- f. Demonstrate placing someone in the recovery position. Be able to discuss why it's important and when it would be appropriate to use. (See page 230.)



1b

The Universal Steps of Providing First Aid

1. **Ensure the scene is safe for rescuers and providers.** Before rushing to a patient's side, take a few seconds to stand back and survey the scene.

- Make sure it is safe. Is there immediate danger to you or other people? Don't run to help and get yourself hurt and create an additional patient. Don't rush into a street or near a fire and get burned. Don't jump into the water to rescue a victim and get into trouble yourself.
- 2. To protect yourself and the patient from germs, establish body substance isolation (BSI), also known as personal protective equipment or PPE.** Put on gloves if you have them in your first aid kit. Your skin is a very effective barrier to infection, but if you have cuts on your hands, you may be at risk. Don't forget handwashing is the best way to prevent the spread of diseases and you should get in the habit of always washing hands before and after caring for someone—whether you were wearing gloves or not. As we enter an era of airborne diseases, face masks and eye protection may also be appropriate to protect ourselves and protect our patients from germs.
 - 3. Try to get a general impression of what happened as you approach the sick or injured person(s).** Are there clues suggesting what happened to them or what was involved in their injury? How far, for instance, did a patient fall, and what did he or she land on? Are they sick and throwing up? Did something fall on them? If you can determine what happened, you'll have clues as to what injuries or illnesses you can expect to see when you assess them.
 - 4. Figure out how many people are hurt and get help.** Call for your scout leader or other scouts to bring their first aid kits. Call 911 based on your scout leader or safety officer's emergency plan.
 - 5. Before you provide care make sure the hurt or sick person wants your help.** Tell the injured or sick person you're a scout and have a first aid kit and training. Get their permission by asking if you can help before you touch them. This is called *consent* and we must gain a person's consent before we help them. A sick or injured person who is unconscious cannot verbally consent, so most laws will protect a provider if they help an unconscious person. This is called *implied consent*. A hurt or sick minor also falls under implied consent, as most parents would want their child to be cared for. Check with your scout leader to find out if parents of scouts in your troop have already provided consent, for example when they signed the forms to register their child in the scout troop.

The scout should be able to demonstrate these universal steps or recite them out loud to their Examiner, prior to beginning their treatment.



1c

RICE Treatment

The acronym RICE is used to remember the first aid steps for bruises, strains, sprains, dislocations, fractures. It may even be helpful to treat small cuts or scrapes after the injury has been treated and bandaged. RICE stands for *Rest*, *Ice*, *Compression*, and *Elevation*.

Rest

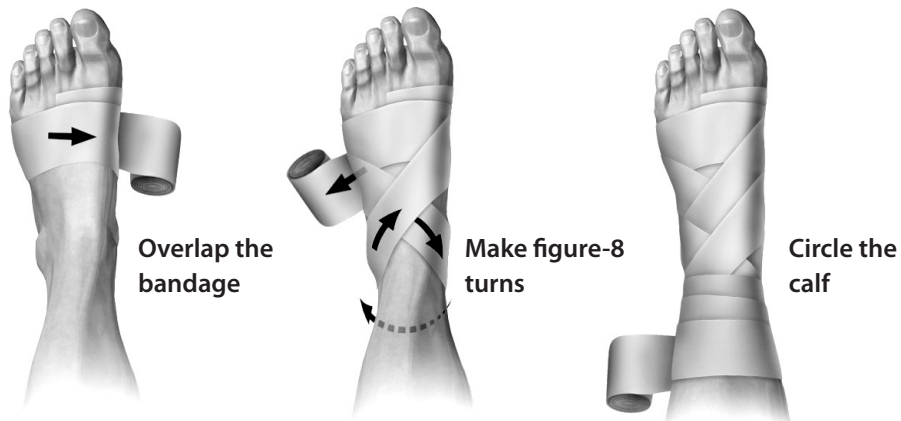
Stop using—or try to decrease use of—the injured part using splints, wraps, and slings. Take a break and rest. Support the injury in a position that is comfortable.

Ice

Periodically apply an ice pack or a bag full of ice or snow to the injured body part for 5–10 minutes during the first 24 hours after an injury. Cold constricts blood vessels in the injured area, which reduces swelling and dulls pain. Keep it cool for 15–20 minutes several times a day. In the wilderness setting if you're using snow or ice, be careful not to cause frostbite or hypothermia in your scout. You may consider using a pot or bucket of cool river water to soak the injured area.

Compression

Compression of an injured area may reduce swelling or the internal bleeding which causes bruising. Less swelling or bruising usually reduces soreness, pain, and recovery time. Be careful choosing your compression material. The wrap should be stretchy like an ACE™ Bandage. Never use material that could cause constriction and act like a tourniquet. Always check and monitor your scout after applying a compression bandage. Periodically check their extremities for mobility and circulation. You can loosen the compression bandage at night to allow the



scout to be comfortable. It's also acceptable to remove the bandage to apply ice, examine the area and re-wrap. Use compression bandages with a sling to limit movement and keep the scout comfortable.

Elevation

Elevation of an injured body part like an ankle also helps limit swelling and bruising. Elevate the injured body part 5–10 inches above the person's heart in a position that is comfortable to them while they rest.

Treatment of Specific Injuries



1d

Cuts and Scratches

Cuts and scratches are common and usually do not require much care other than a good cleaning. Cleaning a scratch or road rash can be very painful, but all the dirt should be removed with tweezers or gentle scrubbing to prevent infection. After cleaning the area with soap and potable water, a light coat of antibacterial ointment will keep the injury moist, so it doesn't crack and split.

Ointment only needs to be applied one time and should be washed off during the next bandage change. A Band-Aid® or bandage will prevent dirt and germs from getting into the injury.

Your bandages should look nice. They'll be more effective, stay on better, and make the person feel like you know what you're doing. Take pride in applying your dressings to an injured person. Bandages should be changed daily to keep the area clean.



Deeper Cuts and Wounds

A deep cut that is bleeding first requires the bleeding to be controlled before you can clean, dress, and bandage it. To control bleeding follow these steps:

1. Apply direct pressure. Use a dressing, a clean towel, a T-shirt or your necker. Use anything you can quickly find to put over the injured area and stop the bleeding. This may take a few minutes to allow blood to coagulate and

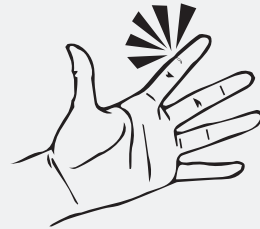
the body to begin its own healing process.

2. If the blood soaks through your first dressing, apply another dressing over top of the first. This may be uncomfortable to the injured person.
3. If bleeding still hasn't stopped, consider the use of a tourniquet. It's rare to have an injury that requires a tourniquet, but when you need it, it's the only thing that will work. Tourniquets are explained in First Class.
4. After the bleeding has been controlled, you can dress and bandage the injury. The dressing is the clean part that goes against the skin. The bandage is the part that holds the dressing in place. In a Band-Aid®, these parts are combined. When you're outdoors and don't have a first aid kit, or nothing in the kit is the right size, you can use anything available to dress and bandage a deep cut. For example, you could use your scout necker, a towel, or a T-shirt. You may have to wait 15–30 minutes before you can come back to gently washing the area around the cut. Don't worry because the action of bleeding does a good job of keeping germs from entering your body.



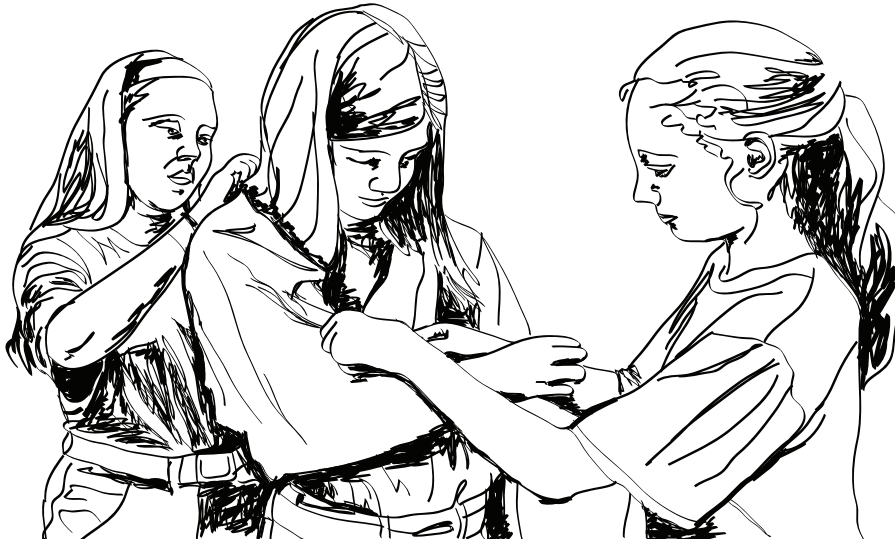
Case Study Scenario

The Owl Patrol just arrived at camp and began collecting wood to start their evening fire. The firewood was neatly stacked up next to the designated fire ring, the area was cleared, and the scouts checked overhead for hazards. While the patrol began setting up their tents, Pathfinder Li volunteered to start the fire. They sorted the firewood by size, prepared their tinder, and pulled out their knife to make a feather stick. After creating a blood circle (see page 301) around their workspace, Li began carving their feather stick. As it started to get dark, Li did not stop to get their headlamp, got into a hurry, and accidentally cut their hand. What should you do?



Bruises

Bruises are areas of bleeding beneath the skin that appear as discoloration and swelling AFTER an injury. It's not something you'll see right away after the injury occurs. Bruises may take a day or two to develop and they can be very painful. In most cases, it's not a bad idea to apply something cool around an injury right after it happens. This will reduce swelling and potentially reduce bruising. Something cold like an ice pack or your necker cooled with water is a helpful remedy, to try and reduce bruising. As always, make sure the person is comfortable. RICE is an appropriate treatment for most injuries including bruising.



Strains and Sprains

Strains and sprains are stretches and tears in connective tissues. A sprain is a stretch or tear of a ligament. A strain is a stretch or tear of a muscle. A scout could also hurt a bone or a joint from a fall. It's difficult to tell these injuries apart but luckily for us, the treatment is all the same.

1. First control any bleeding and assess the injured area to see what's wrong. Ask your patient if they can move the injured body part.
2. You may begin to see redness or swelling around the body part that is hurt.
3. Provide support to the injury by having the patient hold it or ask another scout to hold the injury while you prepare a sling or a wrap. Again, your necker might be useful here. Wrap the injured part (not too tightly) in a position that is comfortable. Secure the loose ends so they don't come undone.

Burns

There are three stages of burns, which are described according to the depth of the injury. Scouts often remember the old fashioned names of First through Third Degree burns, but the medical community has changed these names to better describe the injury.

Superficial Burns

A superficial burn is identifiable by redness and irritation locally around the site. Sunburn is the most common type for scouting events, followed by scalding while cooking in camp. Treatment includes immediately cooling the area with water

and—if it makes the injured person more comfortable—you could wrap the area with a cool, damp bandage. There are many over the counter first aid creams or gels that do well to keep the burned area cool. Aloe, burn gel, or AfterBurn® are all products that might make the victim feel better. Keep an eye on a superficial burn and keep the injured person comfortable.

You can easily prevent superficial burns by both using the sun protection and following camp safety rules. Apply sunblock *before* you get burned and consider a hat and long sleeves to protect your skin. A scout should also be aware while working in the kitchen or around a campfire. Be careful not to grab a hot pot handle or spill hot water on yourself or a friend.

Partial Thickness Burns

These types of burns have damaged the first layer of skin and extend into the middle layers of the body. These burns will be painful, with swelling and redness around the affected area. Blisters will begin forming around the injury. Immediately pour cold water on the area and see treatment advice below.

Full Thickness Burns

This is actual charring and damage to all layers of the skin and deep into the muscle. This is a significant burn and will require advanced medical care. These burns are identifiable by black burning of the skin and will be accompanied by partial thickness and superficial burns radiating out, away from the main injury. If a scout gets a full thickness burn anywhere of any size, get them advanced attention as fast as you can. Meanwhile, see treatment advice below.

Treatment for Partial and Full Thickness Burns

Stop the burning! Pour cold water onto the burned area immediately. If clothing is on fire because the scout fell into the campfire, have them stop, drop, and roll to put out the fire. Tear or cut off burned clothing or douse it with water. Once the burning has stopped, begin treatment of the burned area.

1. Make sure the victim is breathing properly.
2. Examine the burned area and wrap it with a dry dressing to cover the injured area. Surprisingly, these burns can increase the risk of hypothermia both because their skin has been damaged and the scout may have been soaked with water to treat the burn.
3. Make sure the victim is covered, warm and comfortable. Remove jewelry or anything that may be restrictive as the injured area begins to swell. Do not pop blisters.

4. Get help from a scout leader and begin to evacuate the victim to more advanced care.

Nosebleeds

Some people are simply prone to nosebleeds, and they've dealt with them before. In this case, they already know what to do. Other times nosebleeds are caused by some trauma, like getting hit in the face or a fall.

1. To treat any nosebleed, have the injured person lean forward and apply pressure by pinching the bridge of the nose above the nostrils.
2. Do not swallow blood: it can cause stomach irritation and vomiting. Spit out blood that drips into the throat.
3. Continue to lean forward and pinch.
4. Consider an ice pack or something cool gently placed around the face and take care of any other injuries that may have caused the nosebleed.
5. If bleed is not controlled in 10 minutes, consider evacuation to advanced care.

Stings and Bites

Stings and bites from insects, spiders, and even ticks are pretty common while participating in outdoor activities. Although less frequent, bites from snakes and rodents are still possible. Scouts should have a basic understanding of how to recognize and treat these injuries.

Case Study Scenario

Evan is part of Badger Patrol, playing capture the flag against the Raven Patrol during free time at Hullabaloo. While sprinting through an opening in the Raven's defense, Evan fell and hurt their ankle. You stop the game and walk towards Evan. Since they're wearing shorts, you notice they have some road rash on their left knee with grass and dirt in the wound and they're holding their left ankle. Following the universal steps, what should you do first? How would you treat Evan's injuries now and later this evening?





1e

Using Your Necker as a Triangle Bandage

Triangular bandages are commonly used in first aid, and they can be used either full-sized, broad, or narrow fold.

In place of a proper bandage, the scout neckerchief folded diagonally will serve the purpose. The triangular bandage may be applied:

- Unfolded (called a “whole cloth” bandage).
- Folded twice (called a “broad” bandage).
- Folded thrice (called a “narrow” bandage).

To fasten the bandage, either pin with a safety pin or tie with a reef knot.

Triangle Bandage As a Sling

The Narrow Arm Sling

First fold the bandage narrow and place one end over the shoulder on the uninjured side allowing the other end to hang down in front. Bend the forearm to the required height and draw up the hanging end in front of it, over the shoulder on the injured side and tie the two ends behind the neck.

The Broad Arm Sling

This sling is made exactly as for the narrow arm sling except that the bandage is folded broad (i.e., once in itself).

The Large Arm Sling

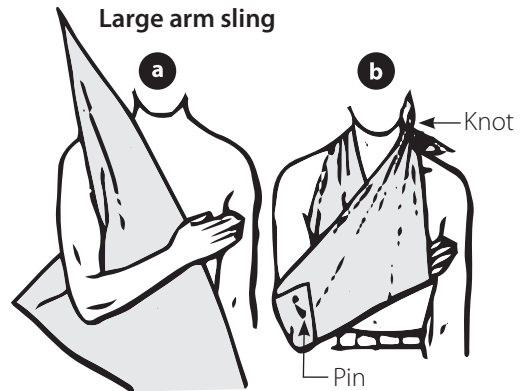
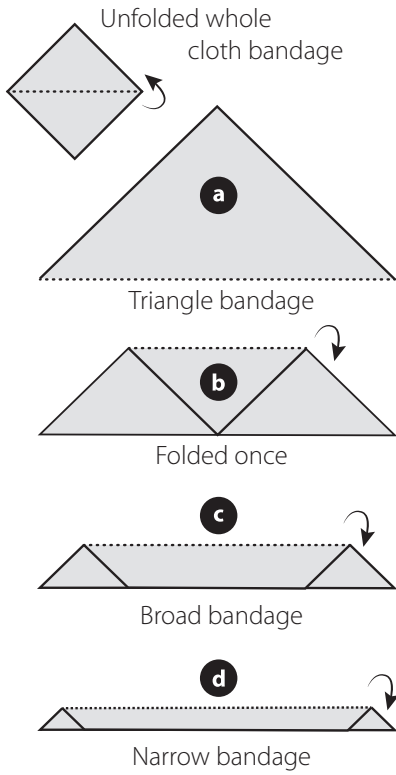
Spread out a bandage, put one end over the sound shoulder, letting the other hang down in front of the chest. Carry the point behind the elbow of the injured arm and bend the arm forward over the middle of the bandage. Carry the second end over the shoulder of the injured side and tie it to the other end with a reef knot. Bring the point forward and pin it to the front of the bandage.

Triangle Bandage for Wounds

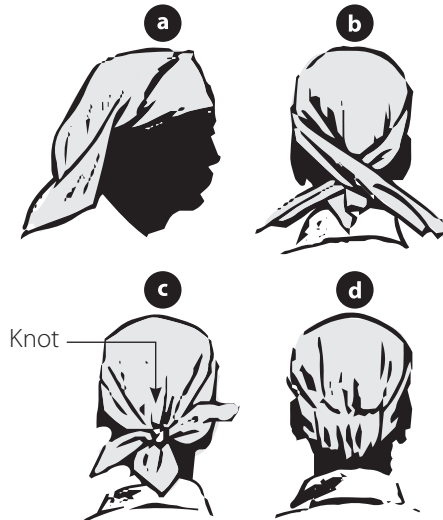
Scalp

Fold the lower border of the bandage lengthwise to form a 1½ inch hem and place the middle of the hem over the center of the forehead just over the root of the nose, the point hanging over the back of the head to the neck. Carry the two ends backwards above the ears (which are not covered), cross the ends at the

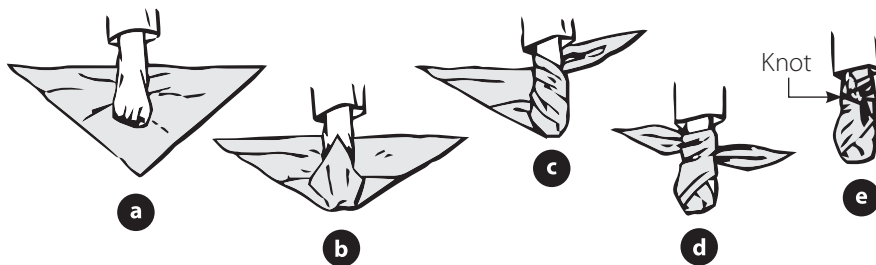
Triangle Bandage Uses



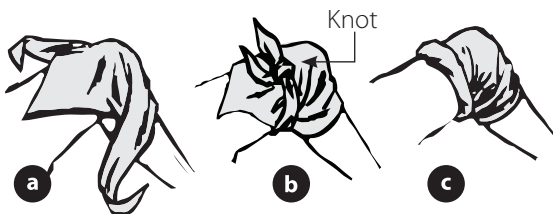
Bandage for scalp



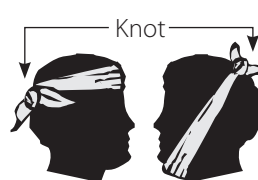
Bandage for foot



Bandage for knee



Bandage for head or chin



nape of the neck over the bandage point and below the prominence on the back of the head. Carry the ends forward and tie in front of the forehead, or if they don't reach tie in back with a reef knot. You can then pull the point of the bandage up and tuck behind or pin.

Forehead or Back of Head

Fold bandage narrow and place center of it over pad on wound. Carry the ends horizontally round head, cross them, and knot over dressing.

Chin, Ears, or Side of Face

Place center of bandage, folded narrow, under chin, carry ends upwards and tie on top of head.

Neck

Bandages should not be tied on a neck wound, but direct pressure, using the narrow bandage folded into a pad (or with a gauze pad or similar), should be applied to the wound being careful not to compress the arteries in the neck (which would restrict blood flow and cause patient to pass out) or the windpipe.

Knee

Apply broad bandage as shown and tie knot below kneecap.

Foot

Lay out bandage unfolded and place injured foot in center of it with toes towards point. Draw point up over foot and take one of the ends in either hand close to foot. Bring them forward round ankle to front and over the point. Cross them above and carry ends back round ankle. Cross ends behind, catching lower border of bandage and bringing ends forward again, tying in front of ankle.

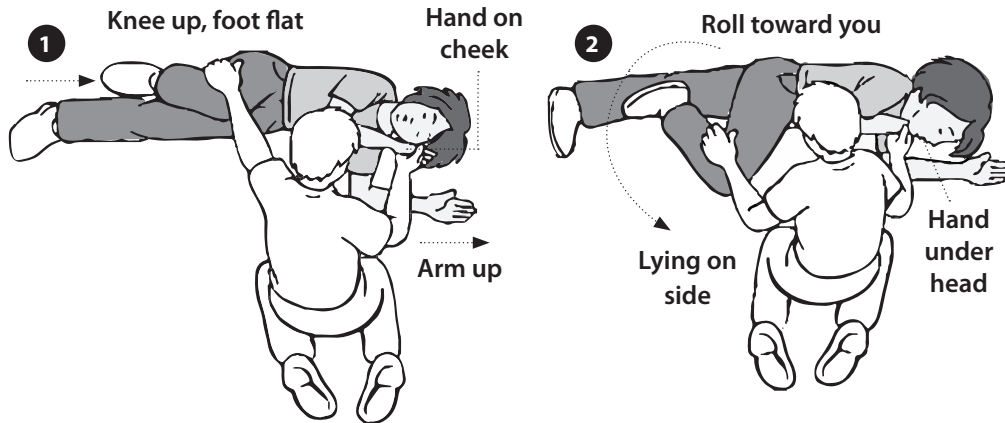


1f

Recovery Position

It's common for sick or injured people to vomit. An unconscious person on their back would inhale their vomit and choke, ultimately suffering suffocation. The recovery position is a first aid treatment you can perform on victims who are injured and/or in some semi-conscious condition. It keeps the victim's airway open by placing the victim in a semi-prone position on their side. This maneuver should be considered if you're waiting for professional rescuers and you have an injured person who starts to vomit, may be unconscious or demonstrates signs and symptoms of shock.

Recovery Position



An unconscious person on their back may not be able to maintain an open airway as a conscious person would. This can lead to an obstruction of the airway by their tongue, restricting the flow of air, which then causes suffocation. This is life-threatening. Thousands of fatalities occur every year in casualties where the cause of their unconsciousness was not fatal, but where airway obstruction caused the patient to ultimately suffocate.

1. Prepare the victim.
 - a. Kneel next to the victim.
 - b. Place the victim's arm nearest you up alongside the victim's head if it's not injured. If that arm has an injury, switch sides and use the other arm.
 - c. Bring the victim's far arm across their chest. Place their hand on the ground and rest their face on the back of that hand.
 - d. Grasp the victim's far leg just above the knee and pull it up so the foot is flat on the ground.

2. Roll the victim.
 - a. Grasping the victim's far shoulder and far hip, roll the person toward you in a single motion, keeping head, shoulders, and body aligned.
 - b. Roll them far enough for their face to be angled toward ground with their face supported by their own hand.

3. Stabilize the victim.
 - a. Position the victim's elbow and legs to stabilize head and body. Ensure there is no pressure on their chest that restricts breathing.

- b. Make sure their head is resting on their extended arm. Check that the head, neck, and body are aligned.
- c. If you suspect a person has a spinal injury, do not move them unless you see fluids in their airway, or you need to leave them alone to go get help.

Wearing the First Aid Special Proficiency Badge

After earning Second Class, scouts may choose to earn the First Aid special proficiency badge.

- A Pathfinder who has completed a credentialed first aid and CPR course, and is certified, automatically qualifies to wear the First Aid special proficiency badge. These classes are often offered at no, or low, cost through the American Red Cross, American Heart Association, or similar organizations. An online class with a live, hands on skills component is acceptable.
- The Examiner for this badge must be a qualified first aid instructor and issue a certificate of successful completion.
- To continue wearing this badge the scout must hold a valid first aid card. They usually must re-certify every two to three years.
- In the opinion of the authors of this handbook, the 16-hour wilderness first aid course should be considered the gold standard and the goal, however any credentialed first aid course that includes CPR will suffice.

First Class First Aid: “Care for Others”

First Class scouts demonstrate proficiency in these first aid topics. Any scout that has taken a formal, credentialed first aid course will have been trained in these topics during the class. These requirements may be considered passed for any scout that has a current First Aid special proficiency badge.

- a. Discuss scene safety (see page 234) with your Examiner, specifically:

1. Hazards of traffic on a street or highway
 2. Fire, both in a structure and forest fires
 3. Hazards of water and ice rescues, and the meaning of "Reach, Throw, Row, Go"
- b. Show good working knowledge of how to perform an organized patient assessment (see page 240) by performing the following:
1. Explain to your Examiner the importance of an organized patient assessment in first aid.
 2. Demonstrate for your Examiner how to perform such an assessment using the A-B-C-D-E methodology.
 3. Explain to your Examiner the importance of a written patient care report. Know where you can get one if there's an emergency in a troop outing and show how to fill one out correctly.
- c. Explain the cause, signs, and symptoms, and demonstrate how to treat each of the situations below:
1. Spinal injury (See page 246.)
 - a. Explain under what circumstances you might suspect a patient has a spinal injury.
 - b. Explain special care taken with patients that have suspected or possible spinal injury, and why.
 2. Head injuries (See page 246.)
 - a. Explain how to check for head injuries.
 - b. Describe other possible signs of head injuries.
 3. Serious bleeding (See page 248.)
 - a. Explain why serious bleeding needs to be treated immediately.
 - b. Demonstrate using direct pressure to manage serious bleeding.
 - c. Explain when and how to use a tourniquet. Describe how to use both a manufactured tourniquet and how to make one using a scout necker.
 4. Seizures (See page 250.)
 - a. Explain how you can help someone experiencing a seizure.
 - b. Explain how to determine if someone who experienced a seizure requires further medical attention.
 5. Asthma, including helping someone with their inhaler (See page 251.)
 6. Allergies and Anaphylaxis (See page 252.)
 - a. Explain the difference between a simple allergic reaction and anaphylaxis.
 - b. Explain how and when to use an EpiPen®.

7. Hypothermia and hyperthermia (see page 254.)
 - a. Explain the different conditions and signs/symptoms of hypothermia and hyperthermia.
 - b. Demonstrate placing someone in a sleeping bag and active rewarming.
 - c. Demonstrate active cooling techniques.
 - d. Discuss when it's appropriate to administer food and water to an injured person.
 8. Shock (See page 256.)
 9. Dizziness or fainting (See page 258.)
 10. Eyes and tooth injuries (See page 259.)
- d. Be able to explain the steps and demonstrate Hands-only CPR. (See page 261.)
1. Explain when to use Hands-only CPR, and what it is intended to help.
 2. Demonstrate Hands-only CPR at the correct beats per minute.
 3. Explain when to switch compression providers.
 4. Explain when to stop providing CPR.
- e. Lay out your first aid kit for your Examiner. Explain how you chose the kit, or, if you put together the kit yourself, how you chose what went into the kit. Be able to explain to the Examiner under what circumstances and how to use any items in the kit they ask about. (See page 263.)
- f. Re-pass the Second Class first aid tests. (See page 220.)

**5a**

Scene Safety

Your personal safety is the highest priority, even before the safety of a sick or injured person. Putting yourself in danger to help someone may only make the situation worse and may force someone else to render aid to multiple people, complicating an already bad situation. If the scene is unsafe, do not approach. Look around for potential hazards.

For example, you should look for traffic before running into a street, and check for fires, overhead power lines, and dangerous objects like weapons. In an outdoor setting check for rock falls from above, cliffs and ledges, and wild animals. Do not approach these situations. If your current situation becomes unsafe, then get out or get away. Again, don't make a bad situation worse.

Be extra careful when facing situations on ice or near water. Untrained, lay people usually do not have the skills or equipment to conduct a “hands on” rescue in the water. Sometimes, the “rescuer” ends up drowning themselves while trying to save a victim.

Here is some guidance to remain safe prior to, or while rendering aid.

Traffic

Traffic is a hazard, even for professionals. Dozens of firefighters and law enforcement officers are hit by cars during traffic emergencies every year. Drivers can be distracted by phones or other occupants, or impaired by alcohol or drugs. Before you rush into a traffic emergency make sure you’ve done everything possible to make the area safe from traffic. You can use other vehicles and get help from others to block traffic. If you cannot block traffic, you may consider quickly dragging a victim to the sidewalk, but this is a risky maneuver for yourself and the victim. Performing first aid in the middle of a street is simply not acceptable and situations like these may be best to leave to professionals. Do whatever you can to get help as quickly as possible.

Fire

Fire is dangerous. Fire can spread quickly and overwhelm a victim as well as a well-intended untrained rescuer. The high heat, poor visibility, low levels of oxygen, high levels of carbon monoxide and other poisonous gases, become life threatening in only a matter of seconds.

Fire Indoors

If you’re in a building that catches fire, immediately get out of the structure. Find a door to exit. If fire is blocking your escape from a room, close the door and consider an alternate route or evacuating from a window. Yell for other occupants to get out and stay low to the ground. Heat rises so cooler temperatures and better air will be down low to the floor. Never re-enter a building that is on fire to rescue someone, a pet, or collect personal items. These actions usually end poorly for the untrained, good Samaritan.

If your clothes catch on fire, remember the procedure to **Stop! Drop! And Roll!** and help others do the same. If someone’s else’s clothes catch on fire, you can use a blanket to smother them or a garden hose to suppress the fire and cool them off. Any person who’s been involved in a fire should be assessed for burns, especially burns around their face. Burns to the face can cause breathing problems within a few minutes. If their airway is injured, it begins to swell and closes off their ability



PASS

Remember the acronym "PASS" which when using a fire extinguisher stands for **Pull** the pin, **Aim** towards the fire, **Squeeze** the lever to discharge the fire retardant or water from the extinguisher and **Sweep** it back and forth until the fire is out or the extinguisher is empty.

to inhale and exhale. These people must be quickly evaluated by medical professionals.

Smoke detectors in homes, in or near sleeping areas, have saved thousands of lives. An annual smoke detector inspection is a great time for users to become familiar with the sound and operation of the device and a good day

for a family to practice their emergency procedures.

This day can be used as a comprehensive family safety day. Maybe your family can implement annual fire extinguisher training and familiarize everyone in the house with the location and operation of fire extinguishers. Finally, families should take this opportunity to rehearse their escape routes and rendezvous locations around the outside of their home. Fire hydrants, significant trees in the yard or even the neighbor's house across the street, are all good meeting areas for families that had to evacuate.

If you have fire extinguishers in your home or vehicle, become familiar with their use. As a family, talk through their operation, pulling the pin, and squeezing the trigger.

Fire prevention tips:

- Never leave cooking unattended.
- Be cautious with the use of candles and lanterns with a flame.
- Keep combustible items like laundry or blankets away from fireplaces or sources of heat like electric, wall or space heaters.

House fires are often the result of carelessness or negligence. Scouts who practice responsibility with heat sources and fire will help prevent catastrophic accidents.

Wildland or Forest Fires

Wildland or forest fires kill habitats and communities. The effects of climate change, record breaking droughts, and decades of fire suppression management, have contributed to more frequent and larger wildfires. As more and more homes and communities are constructed in remote areas, and our recreation takes us deeper into the backcountry, these fires can be devastating to property and life.

Knowing a few safety tips and paying attention to our surroundings will give us the advantage to evacuate quickly should we encounter a wildfire. First and foremost, we do not want to be responsible for starting a forest fire. Many fires are started by careless humans.

Best practices for campfires:

- Make sure campfires are built in a fire ring or appropriate container.
- Check overhead for any low hanging branches or combustible materials.
- Clear an area around the fire twice the width of the fire to prevent embers from popping out and catching the surrounding area on fire.
- Ensure fires are put out before leaving. They should be cool to the touch.
- In dry, high-risk conditions you consider forgoing a campfire and using a camp stove to cook. See page 184 for more on camp stoves.

In high-risk conditions, land management agencies may prohibit campfires, so check the rules and regulations before you go. You can also check in on weather conditions and consult with local rangers for fire conditions in the area you want to travel. Basic planning, like using a map and learning other trails and roads that could make good escape routes will set your group up for success, should you need to leave in an emergency.

Finally, consider wildfire safety:

- If you see flames, head in the opposite direction.
- Evacuate if you see a rising smoke column nearby.
- If you are hiking in an area where the fire danger is high and start to see a lot of “dry lightning” (flashes of light, but no rain appears to be present), it might be time to head out.
- Fires go uphill faster than downhill, so don’t try to escape over a ridge unless you’re near the crest and can quickly drop over the other side.
- If the fire gets dangerously close, head for a large flat area with little vegetation (rocks, meadows, shallow lakes/creeks) because it will have little fuel to feed or attract the fire.

- If you can safely travel over already-blackened earth, that's also a good strategy because the fire will likely be headed away from you, and there is little fuel to attract it back your way.
- If you are in a recently blackened area, watch for possible falling tree snags. Be careful not to step in hot ash pockets, which are smoldering gray/white piles where heavy fuel burned. Too much ground heat can also melt the soles of your shoes (an argument in favor of wearing thick-sole boots—like wildland firefighters—rather than trail shoes).

Water or Ice Rescue Methods

Swimming in open water like lakes, rivers, ponds, and the ocean is harder than swimming in a pool. People tire faster and get into trouble more quickly. A person can go under the water in a murky lake, making them very hard to find, or be swept away in a river current or ocean tides, or *rips*.

When engaging in water activities ensure you and your fellow scouts are practicing the safe swim guidelines and wearing PFDs when required. Many good swimmers have gotten into trouble or drowned in unpredictable situations.

If a scout comes across a victim in water, be very careful about how attempting to assist the victim. It cannot be stated enough that untrained people who attempt to rescue others in a water situation often become victims themselves. If you're going to attempt to help someone in distress in the water, practice this memory aid:

Reach Throw Row Go

These are listed in the order they should be attempted:

1. Try to **reach** the victim with your arm or leg. If a trekking pole, paddle, or sturdy stick is available, use that to reach out to the victim and pull them to safety. Be careful not to hit the victim. Make sure you are solidly anchored to the shore, dock, or boat so you don't get pulled into the water.
2. **Throw** something to the victim. Having a water rescue throw bag on hand and regular practice in using it both as the rescuer and victim is one of the best ways to be prepared for water adventures. If you forgot to bring a throw bag, you could also use a rope or a rescue ring. It could also be something that floats which the victim can use to keep themselves above water. Once again, be careful not to hurt the victim by hitting them with something hard.
3. **Row** a boat out to the victim. You'll need two people in the boat, one to han-

dle the boat and one to help the victim. Don't forget your PFDs. Be careful not to capsize the board when helping the victim.

4. **Go** (swim, with support) out to the victim to rescue him. This should only be attempted by someone who is trained in swimming and lifesaving. This can be dangerous for the rescuer if they do not know the correct techniques. Take something along which floats for the victim to hold on to. Avoid direct contact with the victim. This is the rescue method of last resort.

Victims who are removed from a water situation may be unconscious. As soon as you and the victim are safely away from any further hazard, begin your patient assessment. In other words, check the victim's ABC's and begin CPR as necessary. Never give up hope and keep trying to help until the professionals arrive. Remember, many people—especially children—have had positive outcomes after prolonged submersion.

Throwing a Lifeline

It is often much more use to be able to throw a rope within the reach of a drowning person than to jump in after them and make two to be pulled out.



A good length for a throwing or heaving line is 7 fathoms (42 feet). If you are making up a special throwing line, it should be of nice pliable braided or stranded rope about ¼ inch in diameter. For long throws it's usually the practice to make a heavy knot in the throwing end; sometimes a small sandbag is fastened to the end to make it carry farther. But mind that you aim the weight to fall across the recipient's outstretched arms, and not at their face.

Now decide which hand is going to do the throwing. Most people naturally use their right. On that hand coil up your throwing line very carefully, clockwise, making the coils approximately 18 inches from top to bottom. When about half is coiled on, turn up a finger to separate those coils and coil the rest on to the remaining fingers of your hand.

When you come to the end of the rope, hold it firmly in your left hand with the last three fingers, or, better, have a loop in the end that will fit down over your wrist, so you don't lose the end in throwing. Then pass back the second set of coils from your right to the first two fingers of your left hand. Now you have a coil in each hand.

The right-hand coil is the one you throw first, and you follow it instantly with the left coil, not letting go the end. Thrown out like this, the line won't tangle up, and



it's possible to throw the whole line out straight, so that it will reach the farthest. Sending it out in one coil nearly always results in the coil not opening properly, and a short reach in consequence.

Throwing can be underhand or overhand. The latter is better exercise and almost essential if the line has to be thrown from behind an obstruction, such as a bulwark or wall, or has to be thrown to people in an upper story in case of fire.

Perform an Organized Patient Assessment



5b

In the previous Second Class section, scouts learned five basic steps to universal care and how to provide care to simple, isolated injuries. As we advance in our training and become experienced and proficient at taking care of more serious injuries, it's important to have a methodical, organized approach to delivering care.

In first aid, this is called a *patient assessment*. The patient assessment is a holistic, head to toe examination of a sick or injured person. It's an organized process that allows us to locate the problems, provide life-saving interventions, develop a plan for long term care, and also document and report what we did.

This is a good time in our medical training to talk about documentation:

As scouts, it's never a bad idea to carry a notebook or journal to capture our thoughts, make sketches or draw maps while outdoors. However, as medical providers it is crucial to document the situation if we deliver first aid to someone.

As first aid providers we should carry a small notebook. Be prepared to write down things like:

- The patient's name, date, and time;
- The situation as we saw it;
- The treatment interventions we provided;
- Any other observations from the scene, or about the patient.

By writing down quick notes in a journal or notebook (or using the First Aid Treatment Form found at the end of this chapter), we can stay organized, keep track of our patient's status over time and we have a record that we can handoff to the

next level of care, should the patient require advanced treatment. Documenting findings and treatment is part of an organized patient assessment.

Developing a repeatable patient assessment and doing the same thing every time we provide care is critical. It keeps us from overlooking things. Think of it like playing detective—we can investigate clues to figure out complicated medical problems and provide the appropriate care.

As you start this out, it may feel a little awkward and it will be hard to remember everything—that's normal. Through regular practice it will become second nature. In our scout manual you'll learn the initial foundations of a patient assessment that will help at this level of training. With more advanced training (like a wilderness first aid class), these skills will be developed more thoroughly.

The patient assessment really starts as we witness an accident or approach someone who looks ill. We should always perform the five steps to universal care (See *The Universal Steps of Providing First Aid*, page 220).

After we consider these steps, we can begin really investigating the nature of the problem and interact with the patient. In the medical world, the letters A-B-C-D-E are a reminder tool we use to address the most important, life-saving things quickly. The A-B-C-D-E reminder is the list of things to check, in order from the most to the least life threatening. We go through them in the same order every time. Any time you find something wrong with the patient as you go through the list, stop and fix that before you continue to other items on the list.

A-B-C-D-E

A = Airway

Generally speaking, the human airway is our nose and mouth. They are the beginning of our breathing mechanism, and they need to be open and clear for us to breathe. Blood, mucus, vomit, snow, leaves, or other debris can impede the airflow humans need to survive.

A partially blocked airway will sound like someone is snoring. A fully blocked airway may not make any sound at all since something has completely stopped air movement and lead to respiratory arrest then cardiac arrest. Additionally, an unconscious person's tongue can fall back into their throats, blocking the airway.

The corrective action for this issue is to clear the mouth of debris then perform a head tilt, chin lift maneuver.

1. In one smooth movement, place a hand on the person's forehead and fingers under the chin and simultaneously push on the forehead while lifting on the chin and rock the person's head back.
2. Leave their mouth open. This will lift their tongue out of the way and open the airway.

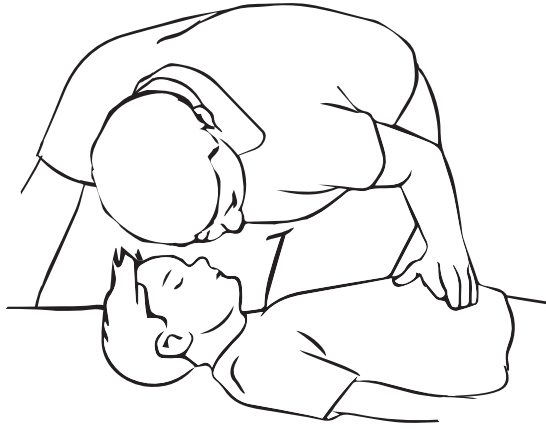
There is a risk when performing this maneuver on someone with a spinal injury: however, the American Safety and Health Institute textbook teaches this procedure and states "establishing an open airway is a higher priority than protecting a possible spine injury. Without an airway a person will not survive regardless of their injury or illness."

There are other maneuvers you may learn to open airways, but they are beyond the scope of this manual. Obviously if a person is crying, screaming, or calmly talking to you and telling you what hurts, it's reasonable to assume their airway is open, at least partially. If they are coughing or choking and cannot catch their breath, the appropriate treatment would be the Heimlich maneuver, which is taught in a CPR class.

B = Breathing

After the airway is opened, check if the victim is breathing.

1. **Look, listen, and feel** is the reminder catch phrase. Look for rise and fall movement in their chest, listen to the quality and rate of their breathing, and/or feel for air moving in and out of their mouth or nose.
2. If they are not breathing adequately, or not breathing at all, rescue breathing is the treatment. Rescue breathing is the action of pinching the person's nose and providing two breaths into the person's mouth.
3. If you are not trained to do this or not comfortable doing this, the American Heart Association recommends performing Hands-only CPR which is discussed below. An inability to breathe will cause respiratory arrest and ultimately lead to cardiac arrest and must be addressed immediately. For the layperson, Hands-only CPR is really the only tool we have to address this.
4. Once you think they are breathing normally you may move on to the next step, Circulation.



Check Breathing

- 1 Look for chest movement
- 2 Listen for breathing
- 3 Feel breaths blowing

C = Circulation

Checking for adequate circulation is a two-step process, often both steps can be performed at the same time.

1. Ensure the victim has not suffered an injury that has caused massive bleeding. Quickly look around the victim for massive blood loss. For example, a lot of blood pooled around the victim or soaking through their clothes. This is called performing a blood sweep. It's a very rapid check of the body, head to toe to look and feel for blood. If they have massive bleeding this needs to be controlled immediately. Without enough blood in the body to carry oxygen to the brain, any other attempts at resuscitation will be pointless. Bleeding control techniques are explained later.
2. Make sure the victim has a pulse. Often this is checked near the wrist—called a radial pulse. There is also a pulse in the neck, called the carotid pulse. Sometime, though, untrained people are not good at locating and verifying the presence or absence of pulses. So, modern CPR and first aid classes are teaching providers to forgo the pulse check and simply look for signs of life. Instead of a pulse check, shake the person to make sure they're not sleeping and see if they can be aroused. If they do not respond like a normal person would, the appropriate treatment for a layperson is CPR.

The risk of performing CPR on someone who does not need it is minimal, compared to the risk of not performing CPR on someone who does. If a person does not respond, get help, and begin traditional CPR or Hands-only CPR. If people are breathing normally, you can assume they have a pulse. If they are not breathing and they have a pulse, they won't last long without interventions.

D = Disability/Decision

This part of your assessment evaluates the injured person's mental status and ability to move. This helps you make initial decisions on if this person is really hurt and needs evacuation, or if you must leave them to go get more help. Also, if not done already, this may be where you determine if the person could have a spine injury. In that case, you'll need to take precautions to keep their head and back in-line and prevent excessive movement.

1. If the person is unconscious, then your decision is easy. People who become unconscious after a traumatic event or sickness will have a serious problem that needs more care than the first aid level can provide. Get help as quickly as possible.
2. If the person is conscious, establish a baseline of the person's awareness by asking a few specific questions. *People should know their name, where they are, the approximate date and time, and what just happened.* You may already know something about the patient's awareness. For example, if you approached the patient and introduced yourself, asked their name and what happened and they answered you, you've already established they A, have an airway, B are breathing, and C have some type of circulation. If you have not yet asked them these questions, now is the time.

These questions are necessary to determine if your patient has a head injury or is getting better or worse. This is a good point to begin documenting your findings with the time so you can track trends. For example, if your patient was able to answer all your questions correctly but 30 minutes later, they begin to forget things, this may be an indication of a head injury or shock and you should *decide* to evacuate them. You'll also want to document (or have a teammate do it for you) what you found and what you did.

E = Environment/Evacuate

People who are sick or injured are compromised and will struggle to regulate their body temperature, making their condition worse. Add the influence of extreme heat or cold conditions during scouting activities, and we see why protecting people from the environment is a top priority. This is the point in our assessment where we make a decision whether or not to rapidly evacuate someone to more advanced medical care or continue what we're doing.

It's easier to keep people warm than it is to try to rewarm them after they get cold. The same holds true for keeping people cool in hot environments. We'll discuss treatments for hypo- and hyper-thermia later, but it's part of our initial assessment. During our assessment, after we've addressed A-D we need to consider the

impact of the environment we're in. If your partner twisted an ankle, before you begin wrapping that ankle you might consider covering them up with their coat or a space blanket if it's cold. Get them to sit on a pad to get off the ground. If it's hot, help them find some shade. Someone who is seriously hurt or sick may have to be moved into a sleeping bag and into a tent to be cared for properly.

Always address the victims' A, B, C and D then protect them from the environment before moving on to other treatments.

If you or your group thinks a person should be evacuated because of an injury or illness, protecting them from the environment is critical. It will take a while to get them to safety. You may also have to wait for professional rescuers to get to you in situations where you need help. In general terms, keep your patients warm and dry if it's cold and keep them cool and hydrated if it's hot.

What now?

Once you've performed your initial assessment and examined your patient for life-threatening injuries, you can begin the next steps of care. This is the point where you would want to learn things about your patient's chief complaint.

Ask questions. If they are throwing up, what did they eat? Are other people throwing up? If they hurt their hand, can they wiggle their fingers? This is where you play detective and learn more about what's wrong. You may also find it important to talk to the patient and determine their past medical history. For example, has this thing ever happened before? What was the cause then? Do they take medications for this problem? Are there other things you should be aware of?

Sometimes, hurt people will not realize the extent of their injuries after an accident. It's important to conduct a full head-to-toe assessment to make sure you don't notice anything the victim is unaware of.

When you provide care, take pride in the things you do. Work neatly and cleanly. It will help the victim feel better and allow you to give a thorough report to professional providers, if it becomes necessary. This is the time to bandage and dress all injuries, split bones and joints and document in your notebook what you found, what you did and the time you did it.

Look for DOTS

DOTS is an acronym that stands for **D**eformities, **O**pen wounds, **T**enderness, and **S**welling. These are signs of an injury that must be treated.



The patient assessment is a continuous cycle and continues until the emergency is resolved. Regularly go back to the beginning and reassess what you've done to help the person to see if it's working or not.



5c

Treatment for Serious Injuries

Spinal Injury

Our spine is made of many bones called vertebrae. Your spinal cord runs downward from your brain through a canal in the center of the vertebrae. The spinal cord is a bundle of nerves that carries messages between the brain and the rest of the body for movement and sensation.

A spinal cord injury can cause permanent disability. These injuries can be caused by a traumatic injury that bruises, partially tears, or completely tears in the spinal cord. So, when we are providing treatment to someone after a traumatic event, we must always consider if the victim might have a spinal injury and take steps to protect them.

The correct protection is to keep their body in line, on their back, and prevent their head from rotating side to side. If an injured person needs to be left unattended (for example, to get help), and you think they might vomit or have difficulty breathing, you should put them into the recovery position before leaving. This keeps their airway open and allows vomit to drain out of their mouth so the victim will not choke on it. When doing so, take great care to keep the victim's head and back in alignment as much as possible to avoid potential further injury to the spine. This should only be done if it seems absolutely necessary for the victim's safety.

Head Injuries

Head injuries can be common in outdoor settings because of the type of activities we perform. Although helmets can prevent rocks from hitting climbers and protect a mountain biker if they fall, a hiker that slips off their feet and falls can sustain a serious head injury. Implementing safe habits and procedures and emphasizing prevention are the best ways to reduce the chance of serious head injuries before they happen.

Besides abdominal problems, head injuries can be one of the most difficult emergencies to diagnose. Sometimes, a group may be unsure of a head injury's severity

and be unsure whether they need to evacuate the injured person. A thorough, organized assessment and regular reassessments—plus constant monitoring—are the key points for a first aid provider to perform, while taking care of a fellow scout who sustained a head injury.

After an accident, perform your normal, organized assessment. If you find your patient has sustained a head injury, consider whether your patient may have sustained a spinal injury. Take the appropriate precautions to protect their neck and upper back, as described in the back injury section.

Head injuries tend to bleed more because of the generous blood supply to a human's head. If you find someone bleeding from the head, follow your bleeding control steps. Just remember, major bleeding from the head *by itself*, does not always indicate a serious head injury. The smallest cut to the head can cause major bleeding so it may just look bad. You'll need to monitor the person over time to evaluate for other signs and symptoms.

Checking for head injuries:

- Use your hands and check the victim's head for soft spots, hematomas often called bumps or *eggs*, and to evaluate for pain.
- Check the person's eyes to ensure they are equal, and their pupils match each other. If they don't, unequal pupils are considered a sign of a severe head injury (unless that is normal for the person before the injury).
- Check the person's ears for blood or a clear fluid oozing from their ear. If you find these signs and are sure they are from the person's ear and not just a cut around their ear, this is an indication the person may have sustained a skull fracture.
- Any loss of consciousness or an immediate reduction in the person's alertness after a traumatic event, is an indication of a head injury.
- Any exposed bone, or soft spots on a person's head, a deep wound where bleeding cannot be controlled by normal procedures, or a decline in the person's alertness or level of consciousness are all indications the person has sustained a serious head injury and should be evacuated immediately.

If, during your assessment you do not find any of these indicators, you should still monitor the person for several hours to make sure they are acting appropriately and nothing changes. If at any time the person is not acting correctly or something

changes, you should assume they sustained a head injury and evacuate them quickly.

Stop Bleeding: From Simple to Serious Bleeding

Blood is the vehicle in which oxygen is delivered to organs in the body. Looking at it in the simplest way, air goes in and out and blood goes 'round and 'round, carrying that air. Keeping those two systems working in an injured person by using CPR, which is covered below, and by knowing how to control bleeding are, the most critical lifesaving treatments scouts should be able to perform.

Severe blood loss can lead to death in as little as five minutes. As we learned in the shock section, major blood loss will inhibit the body's ability to generate blood pressure. This is why bleeding control, and knowing how to keep blood inside the body is so important.

Not all bleeding is life threatening—in fact, most bleeding is not. Oftentimes, an injury caused by a cut (laceration), or road rash (abrasion) will require only a thorough cleaning and a simple bandage to prevent infection and promote the body's own ability to heal. You practiced these skills in your Second Class requirements.

However, occasionally a scout may encounter an injury that causes life threatening bleeding, and you'll have to take actions to save someone's life. A step-by-step organized approach to bleeding control is the most effective way to provide treatment.

The treatment to control bleeding is a process that begins with a rapid assessment of the injury and follows a set of step-by-step treatments to administer the correct level of treatment to the correct injury. Naturally if you identify a critical, life threatening injury during their assessment, you'll skip the basic treatments and go straight to more aggressive bleeding control techniques, like a tourniquet. The step by step approach begins with the most common, simple approach, moving toward the most aggressive.

Direct Pressure

Direct pressure is the simplest and most common technique used to control bleeding from most injuries. If time permits, follow the universal steps to providing care by washing your hands and donning exam gloves. This protects you and your patient. In an emergency, sometimes this is not possible, and an injury requires immediate attention. If this is the case, do not delay treatment to find your first aid kit and put on gloves. Your skin is an effective barrier against communicable diseases, so just thoroughly wash your hands afterwards.

To apply direct pressure:

1. Put a clean dressing over the injury and push lightly but firmly down until bleeding has stopped. This may take a few minutes; just hold pressure and talk to your patient. Calm them down, ask them if they're hurt anywhere else. If you cannot find a medical dressing, use whatever you can find; a rag or a clothing item like a necker or hat will work fine.
2. Raising an extremity, like an arm or leg, above the victim's heart can sometimes slow down bleeding. This can encourage the body's own clotting process faster. However, balance this against the risk of a possible bone or muscle injury to the extremity, when elevating that body part may exacerbate a problem. Use your best judgment. Your patient will probably know if they can raise their arm or leg or not.
3. If bleeding is controlled after several minutes, wrap the dressing with some type of bandage to hold it in place. Wrap it tightly enough to keep pressure on the wound: this is a *pressure dressing*. In wilderness environments, you must be creative and innovative and use what is available. If bleeding persists and soaks through the initial dressing, apply another layer on top. Do not pull off the first layer! Hold pressure again.
4. If bleeding is not controllable by this time, you probably have to apply a tourniquet.

Tourniquet Use

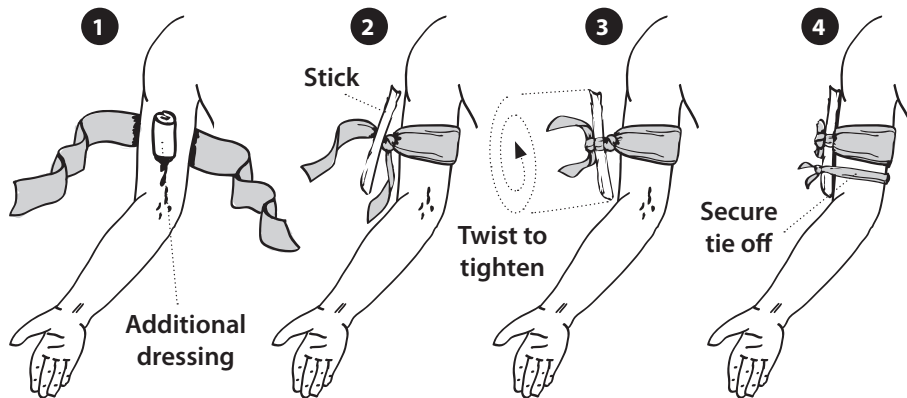
Although very effective, tourniquet use is rarely needed in the wilderness.

However, it is a skill scouts should practice and know how to use in case direct pressure is ineffective and the injured person's life is at risk. Tourniquets should be applied after direct pressure attempts do not work, or immediately if the victim has massive, life threatening bleeding. Life threatening bleeding is bleeding under pressure from an artery, or massive bleeding from some type of large open wound like an amputation or crush injury. Use your best judgment as to the level of care they initiate.

Steps to tourniquet use:

1. Once you've determined a tourniquet is necessary, apply it high on the arm or leg. If you have time, expose the extremity so clothing doesn't get in the way. If necessary, though, the tourniquet can go directly over clothing. Commercially made tourniquets are proven to be more effective, but if you have to improvise, use a bandage that is 3 to 4 inches wide.

Improvised Tourniquet



2. Never use wire, rope or a material that will cut into the skin.
3. Wrap the bandage snugly around the extremity several times, then tie an overhand knot.
4. Place a small, stout stick or similar object on the knot then tie another overhand knot over the stick.
5. Twist the stick until the bandage becomes tight enough to stop the bleeding. You should not feel pulses on the downstream side of the injury.
6. Using a pen, write **TK** on the patient's forehead and the time it was placed. You should also document this in your own medical notebook.

Once placed, a tourniquet should not be removed until the patient is in the care of advanced medical care. Allow those providers to decide the best course of action and treatment.

Seizures

A seizure is a burst of uncontrolled electrical activity between brain cells that causes temporary abnormalities in muscle tone or movements. These could be stiffness, jerking, twitching, or limpness. Seizures can also cause abnormalities in behaviors, sensations, or states of awareness. Seizures are not all alike, and people react differently.

People who have regular seizures from epilepsy or another seizure-causing disorder know about them and are very adept and experienced at dealing with them.

This information should be disclosed in advance, so scout leaders know about it.

An isolated seizure by itself usually clears up in less than a minute and doesn't necessarily mean there's a medical emergency. Simply protecting people's modesty and keeping them from injuring themselves is usually most important.

What are danger signs in seizures? The following are serious and require a medical evaluation:

- Seizures that are not resolved in less than 2 minutes
- Any first time seizure
- Multiple seizures in a row
- Any seizure after a traumatic event

The risk during a prolonged seizure is *hypoxia* or lack of oxygen to the brain, which could cause brain damage.

Sometimes people twitch or their body jerks around or they may urinate. They may act funny or unpredictable, which later could cause them a high level of embarrassment. After the seizure is over, give them privacy and be prepared to offer supportive care as necessary. Never try to restrain someone having a seizure unless it's absolutely necessary to protect them from injury.

Asthma

Asthma is a common lung condition that causes shortness of breath, wheezing and coughing. This is created by fluid and swelling in the smallest parts of our lungs. Asthma attacks can be triggered by allergies like pollen or dust, irritants such as smoke, air pollution and cold air. Extreme exercise has been known to trigger attacks also. Scouts who have asthma might be perfectly healthy and participate in strenuous outdoor activities, especially if they use their medication appropriately.

If a scout has an asthma attack:

1. The first step is to calm them down. Consider moving them to a private setting or ask other onlookers for some privacy.
2. Get them to breathe as deeply and slowly as they can.

3. Ask if they have an inhaler. Many people with asthma are prescribed inhalers and know how to use them. Help them administer a puff or two.
4. Attempt to identify the cause of the attack and determine if the scout can continue the activity.
5. An asthma attack that cannot be resolved should be evacuated immediately.

Allergies and Anaphylaxis

Allergies generally fall into two categories: mild allergies, like hay fever; or severe reactions, like anaphylaxis.

Mild Allergies

These types of reactions are common and recurrent. Many people live with allergies their whole lives, with minor difficulties. People can be allergic to pets, pollen, dust, or grass. Exposure to these things causes itchy, watering eyes, a stuffy, running nose or sneezing, hives, or rashes. These can all be inconvenient, especially if they are trying to participate in some outdoor activity.

Minor allergies can also trigger asthma attacks. But generally, people who have allergies are experienced dealing with them and know what best works for them. They may have a prescription medication, or over-the-counter antihistamines, lotions, or topical treatments. Effective first aid providers should not administer medications. You can, however, assist patients using medications that already belong to them.

Mild allergic reactions should be treated by either removing the patient from the allergen or moving the allergen away from the patient. Sometimes this isn't possible, and the scout may just have to deal with the situation the best they can. If it becomes completely intolerable and cannot be treated effectively, the scout may consider ending their outing to stop the allergic reaction.

Severe Allergies

If an allergy becomes so severe that the respiratory and circulatory systems become compromised, this is called an *anaphylactic* reaction and is a form of shock. This is a serious medical condition and requires immediate, aggressive treatment.

Anaphylaxis is triggered suddenly and immediately after eating, taking medication, or after being stung by a bee or wasp. People often have anaphylactic reactions to things like peanuts, shellfish like shrimp, or from bee stings.

Symptoms of anaphylactic reactions:

- Anaphylaxis will present very quickly and will start to cause dramatic swelling of the face and throat, tightness in the chest and breathing difficulty.
- The patient may begin to start wheezing, coughing, or vomiting immediately after the exposure to the allergen.

It's rare for anaphylactic reactions to happen later on, after an exposure, so symptoms that happen later usually fall under mild symptoms and are not anaphylaxis. Regardless of when the reaction happens, anaphylaxis is identified by compromise of the person's respiratory system and collapse of their circulatory system, and they require an EpiPen[®].

Scout leaders should be made aware of any scout with an EpiPen[®]. These are prescribed to people who have known anaphylaxis reactions to certain allergens. They are trained and know how to use them. Proper administration of an EpiPen[®] falls within the scope of practice of a first aid provider and you should be familiar with using them.

Actual anaphylactic shock is rare but when identified, it requires immediate treatment using an EpiPen[®]. Scouts should not be apprehensive about making a wrong decision and should err on the side of administering an EpiPen[®] if they are unsure. In this situation, the benefits outweigh the risks.

EpiPen[®] instructions are printed on the side of the pen and can be read quickly in an emergency. Steps will include:

1. Read the instructions.
2. Remove the pen from its case.
3. Remove the safety cap, usually at the back side of the pen.
4. Push the needle end of the pen against the meaty part of the person's thigh. Increase pressure until you feel and or hear a pop.
5. The needle is spring-activated and will push through pants and into the person's muscle. Hold the pen there for a count of 10 to allow the pen to administer the medication.
6. Remove the pen and massage the area.

7. Note the time of administration and monitor your patient. Be mindful of the exposed needle and stow it in a safe manner until it can be disposed of properly.

A person who requires an EpiPen® injection may require a second dose within 5–10 minutes of treatment if the symptoms persist after the first dose. So, keep an eye on your patient. *Any person who has received an EpiPen® injection should be evacuated immediately and seek professional medical care.*

The medicine in an EpiPen® is called epinephrine. It's a naturally occurring chemical in the body known as adrenaline. In simple layperson's terms, epinephrine manages the effects of anaphylaxis, it does not cure anaphylaxis. And it has a short life in the body.

More information and training can be found online or in a credentialed first aid class. Some states in the U.S. have EpiPen® programs through their state or county health department. If applicable, these programs may help outdoor leaders or groups obtain EpiPen® auto-injectors, provide free or low cost training, and define the scope of practice and liability of administering an EpiPen®.

Hypothermia and Hyperthermia

When scouting outdoors, we are exposed to the elements. Without proper clothing and planning we could find ourselves in a bad situation from being too cold or too hot. Being too cold is called *hypothermia*, and being too hot is called *hyperthermia*.

The best way to deal with these emergencies is to prevent them before they happen. Again, preparation is key. For example, someone could fall into a river or get lost without their proper 10 Essentials, or they could lose their hat and gloves and become cold, or hypothermic. Conversely, in hot weather if we forget to drink enough water or don't take adequate breaks from the sun, our bodies will overheat and become hyperthermic. Untreated, both conditions can evolve into serious medical emergencies.

Hypothermia

Cold injuries include frostbite and hypothermia. These conditions occur when our bodies lose enough heat to cause our core temperature to drop, or when our skin is exposed to the cold for too long and risks freezing. This can be made worse when our clothing gets wet from the elements or from sweating while we're working hard. Dehydration, lack of nutrition and injuries can exacerbate cold injuries.

Signs: Shivering is the first sign of body cooling. If left untreated this will become

uncontrollable.

- People who begin to grumble or mumble, become angry or lethargic, or begin making poor decisions might be suffering from an early case of impending hypothermia.
- Stumbling or a loss of coordination is also a sign of someone who is getting cold.
- At its worst, hypothermia can cause unconsciousness.

Treatment: Find shelter immediately.

- If they can safely walk to a warm place, keep them moving to generate their own heat.
- Get scouts warm by lighting a fire or a camp stove.
- Give them warm fluids and food but only if they are conscious and able to swallow.
- Remove wet clothing immediately and replace it with dry clothing in layers.
- Get scouts into a sleeping bag and insulation from the ground.
- Place warm water bottles or heat packs on the core of their body to assist with their own rewarming efforts.
- If a scout suffers frostbite treat them like blisters. Do not rub them. Serious frostbite needs medical attention.

Hyperthermia

Heat injuries are caused by being too hot or by prolonged exposure to the sun. These include anything in the range from a simple sunburn to heat stroke. The most serious of these can be life threatening. Dehydration, over exertion, or failure to protect yourself from direct sunlight can cause heat injuries.

Signs: a person who is sweating profusely with flushed skin might be starting down a road to a heat injury.

- When a person ceases to sweat, we should become concerned, as this might be an indication they're dehydrated and suffering a more serious situation.

- Sunburn will present as redness and discomfort around the burned areas and may develop, in the most serious cases, into blisters. These should be treated just like any other burn.
- Finally, if not recognized early and treated, heat injuries can develop into heat stroke. Heat stroke is rare condition that mimics signs and symptoms of a stroke. People become lethargic or confused. Their skin will be hot, and they may even lose consciousness.

Treatment: Prevention is the most useful tool we have for heat injuries. Sunblock and loose fitting clothing that covers the skin is necessary to keep harmful sun rays from burning our skin. Regular hydration and rest break intervals in the shade are important to prevent overheating.

- If a victim suffers from heat exhaustion, they need to be removed from the heat and actively cooled.
- Remove their clothing, cool them down and administer cool fluids with electrolytes. If their condition improves, simply allow them to rest.
- If their condition does not improve or they become unconscious, they are likely suffering from heat stroke and need to be evacuated immediately.

Shock

Shock is a simple name for a complex problem in the circulatory system. Our bodies depend on healthy, well-oxygenated blood flow to deliver oxygen to the brain and other vital organs. The circulatory system also balances electrolytes and removes carbon dioxide and waste. The medical term for this process is called *perfusion*.

Any disruption to perfusion from an injury or acute illness that causes inadequate blood flow can begin a dangerous, downward spiral that ultimately could lead to death. This is called *shock*. First aid providers have a limited ability to treat shock in the field, but we can identify the symptoms and offer basic treatment until the injured person can be evacuated.

Often after an injury people will be confused, excited, or upset and they are described as “in shock” but, technically, this is not accurate. Although confusion can certainly be an early sign of shock, the problem is much more serious than an emotional reaction. Shock is always the result of something else. Any injury to one of the three basic components of the circulatory system (blood, heart, or blood vessels) will compromise our body’s ability to adequately circulate blood.

Fluid loss is a major and common cause of shock. It's the easiest to identify and treat in the field. The primary cause of fluid loss is major bleeding which we can control using bleeding control techniques. Infections and extensive burns are more difficult to treat, but burns should be handled by following the treatments you learned in Second Class. For infection, there's nothing else to do but to evacuate them and get them professional medical help.

Decreased blood supply from an injury to our hearts muscle from a heart attack is called *cardiogenic shock*. This decreases the body's ability to adequately pump blood. Finally, blood vessel dilation (blood vessels that expand) reduces the heart's ability to generate enough pressure. Blood vessel dilation can be caused by something serious like a systemic infection or injury to the body's nervous system, or injury to the spinal cord.

All these different things can cause shock, but the result is generally the same: inadequate perfusion or, in the simplest terms, not enough blood pressure.

Look for these initial signs and symptoms of shock after a traumatic event:

- Confusion or hyper excitement in a person who cannot be calmed down. Check if this is accompanied by any of these other symptoms.
- A very rapid heart rate at rest, as the victim's heart attempts to compensate for a decrease in blood pressure.
- Increased breathing rate outside the normal range. This will look like how someone is breathing after they've just run fast, but it's happening while they're just sitting. This is a normal reaction to a body attempting to increase its oxygen intake.
- Pale skin, pale extremities as the victim's blood pressure drops. Cold, shivering.
- Unconsciousness.

Initial signs and symptoms may be reversible in the field. If you suspect a person is in shock, sit them down or lay them down and make them comfortable. If you suspect they hurt their spinal cord, follow the procedures to keep their head in line with their back. Keep them warm. If they are conscious, it's fine to help them hydrate. This will help increase their blood pressure. These people need to be evacuated immediately.

Dizziness or Fainting Episodes

Fainting—or “passing out”—is common. These episodes are typically triggered by a sudden, temporary drop in blood flow to the brain, which leads to loss of consciousness and muscle control. This person gets dizzy and falls, which allows blood flow to return to the brain. Returning blood flow allows the person to regain consciousness.

Sometimes this situation is limited to a dizzy feeling or “head rush,” such as when a person stands up too quickly, but this might be the precursor to a serious medical problem. As we discussed above, fainting has very similar signs and symptoms of shock and can sometimes be confused as shock.

Fainting can happen at any age, including childhood, though fainting happens more frequently to people as they get older. Fainting episodes usually last only seconds or minutes. They may be accompanied by temporary feelings of confusion when people regain consciousness. Sometimes this event causes other injuries if the person falls. Knowing what to do and how to treat this event is necessary.

What Causes Fainting?

Fainting can be caused by an underlying medical condition, or from environmental triggers. Fainting can also result from an emotional response to a very difficult situation. Intense pain, low blood sugar, or a change in blood volume can also cause fainting or weakness. If you experience a drop in blood pressure or heart rate, you might faint abruptly.

Common causes of fainting include:

- Dehydration or electrolyte imbalances
- Abrupt changes in posture, such as standing up too quickly, which can cause blood to pool in the feet or legs
- Standing for long periods of time
- Extreme pain or fear, or the sight of blood
- Extreme stress or profound emotional reaction
- Pregnancy
- Exhaustion

In most cases treatment in the field is limited. Ruling out simple causes such as dehydration or low blood sugar can be remedied by having the scout drink water, eat and rest. Removing them from heat if high temperature is an issue and/or controlling any blood loss from an injury is important. Continued dizziness, weakness or fainting episodes will need to be evaluated by medical professionals right away.

Simple Eye and Tooth Injuries

Eye injuries

If a scout gets dust, dirt, or sand in their eye, often a simple flush will solve the problem. This procedure may require two people: One helps the patient get into position with their head turned to the side and a second helper to flush the debris.

1. Ensure the person's face is oriented so the water will run out and not pool on their face.
2. Sit the scout down and help them get into a position where their affected eye is rotated below the non-affected eye.
3. The first helper can assist the patient and then hold their eyelid open. The second helper will use clean, potable water and gently flush the affected eye. Use a water bottle or cup or if you have a syringe for irrigation use gentle pressure and pour the water into the eye and allow it to run out.
4. Ensure the water runs down to the ground and not into the other good eye.
5. Continue this procedure and attempt to remove the debris for as long as the patient can tolerate the situation.
6. If the debris is removed the problem is solved unless you suspect an eye injury like a scratch.

Afterwards, an ice pack or cool compress may relieve some irritation. If you suspect an injury after the debris is removed follow the steps below. If the debris cannot be removed evacuation may be necessary.

For any type of eye injury, you should do the following:

1. Flush out debris with copious amounts of clean, potable water.
2. Do not rub the eye, as this can worsen the injury.

3. To help minimize further damage from an injured eye, you may want to cover it to prevent the patient from rubbing it. In these cases, it's better to cover both eyes to prevent both rubbing and unnecessary eye movement.
4. Do not remove an object stuck in the eye. This should be left in place and the person needs medical attention immediately. Stabilize the object in place and cover both eyes. Treat bleeding and underlying injuries.
5. Do not apply medications to the eyes.
6. Go to an eye doctor or the emergency room as soon as possible.

Tooth Injuries

If a young scout loses a baby tooth earlier than expected, there's no need to replace it. But if a permanent tooth comes out, it's a dental emergency. Permanent teeth have the best chance of being saved when replaced within 30 minutes. So, it's important to act quickly and follow the guidelines below.

Many other dental injuries, like chipped or cracked teeth, loss of a filling, or broken braces are less urgent but may need to be looked at by a dentist. If your scout has signs of head or other injuries combined with a tooth injury, treat as required and get emergency medical help.

What to do if a tooth is chipped or knocked out:

1. Rinse the mouth with warm water. Spit out any chipped pieces and try to collect them. Collect any teeth and store in milk or saliva. Avoid storing in regular tap water, since it can be harsh on a delicate tooth and tissues.
2. If you can do it comfortably, try replacing the tooth back into the socket. Hold it in place by biting down on a piece of gauze or something soft while the person is transported to advanced care.
3. Control bleeding by applying pressure to the area with a piece of cold, wet gauze. If the scout is old enough to follow directions, ask him or her to bite down on the gauze.
4. Offer an ice pop to suck on to reduce swelling or hold an icepack wrapped in a washcloth to the cheek. Go to an emergency dentist, or the local hospital emergency room can contact an emergency dentist.

Hands-Only CPR



When you take a breath, your lungs fill with air. This supplies arteries with oxygenated blood to send to your brain and other vital organs. Then, veins bring the blood back with waste that gets filtered through our livers and kidneys, and finally you exhale carbon dioxide.

Because our bodies cannot store oxygen, this process must continue, uninterrupted, in order for our human body to survive. In the most basic terms, air goes in and out and blood goes round and round and if this process works, people live.

If the process stops working and the heart stops beating—during a cardiac arrest, for example—cardiopulmonary resuscitation (CPR) is the treatment that supplies oxygenated blood to the brain and vital organs as described above.

Traditional CPR allows the scout to restore oxygen to the brain through a combination of chest compressions and rescue breaths. However, CPR alone is not enough. Victims of cardiac arrest often need *defibrillation*. This is a shock to their heart that resets its electrical activity, so it begins to beat normally again. CPR is crucial as the bridge, while waiting for more advanced care like a defibrillator.

So, what is Hands-only CPR?

Hands-only CPR is an approach that is being widely taught around the world to people who are not trained in traditional CPR. It requires minimal training and is intended to take away any fear or apprehension from bystanders who may not want to perform mouth-to-mouth rescue breaths.

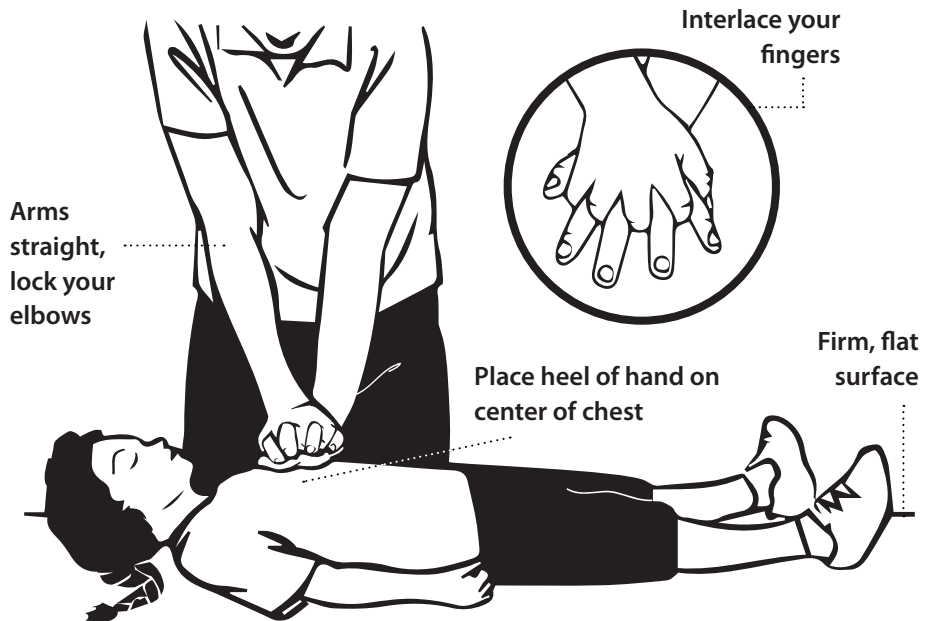
Studies have shown if communities are trained in compression-only techniques, they are more likely to do something to help someone during a cardiac emergency. By simply doing compressions, we can provide a minimum amount of care until better-trained rescuers with more advanced equipment can arrive to help. Additionally, studies have shown that the mechanism of compressions does provide some airflow into the lungs and increase the odds of patient survival over doing nothing. In an where oxygen is not circulating correctly, and no one present is trained in CPR, you should undertake Hands-only CPR until help arrives.

Keep in mind that we should aim for the level of taking a traditional CPR course. This will cover topics such as giving respirations, choking, automated external defibrillators (AEDs) and also information related to taking care of children. However, if there are barriers to this because of time or cost, compression-only training is easy to learn here and is better than doing nothing at all.

Hands-Only CPR

The American Heart Association® says it takes just **2 steps** to save a life:

- 1 Call 911
- 2 Push hard and fast



Compression-only CPR is exactly as it sounds. If someone collapses and is not responding after attempts to arouse them, a scout should activate emergency response and begin chest compressions. Emergency response is usually 911 in an urban environment, or in a remote environment, the arrival of someone with more medical training.

Perform chest compressions with the heel of your hands, one on top of each other, in the center of the victim's chest, as shown in the illustration above. Push hard and fast continuously. The motion is up and down, at 100 beats per minute. There are some refinements the provider can learn like keeping a consistent rhythm, centering their body over the victim, and locking out their elbows during compressions.

Providing adequate compressions is hard work. Oftentimes the provider will become fatigued, so other scouts should switch every couple minutes. This gives the first provider with a break and ensures that the person providing compressions has the energy and strength to perform good quality compressions.

CPR students often ask, “When do I stop providing compressions?” Generally, it’s acceptable to cease compression efforts under one of these conditions:

- The victim is revived;
- Advanced medical help arrives and takes over;
- The provider is exhausted and can no longer provide adequate compressions.

Learning more about CPR, a critical lifesaving technique, is beyond the scope of this manual. Scouts should strongly consider taking a formal CPR class, which is considered the gold standard of care.

Beats Per Minute (BPM)

One great way to be prepared in case you must give CPR is to figure a song you know well that has a tempo of 100 BPM. Then you can use that song in your head when practicing or giving CPR to help you keep the right tempo.

Try: **“Staying Alive”**

“I Will Survive”

“Baby Shark”



Principles of a Good Personal First Aid Kit

A first aid kit is one of the most important of the 10 Essentials and, although they can vary widely based on the scout’s training and abilities, some basic principles can be applied to all of them.

Kits should also evolve and change over time. As you become comfortable providing more advanced first aid, your kit will grow to reflect your increased skills and abilities. It’s common to adjust your first aid kit based on the type of outing you’re planning, where you’re going, who you’re going with, or the weather situation.

Basic First Aid Kit Rules

- Kits should be simple and easily fit into a pack with the scout’s other 10 Essentials. A kit that is too big will have a lot of stuff, but it won’t fit into a pack. A kit that is too small will work for the most basic injuries, but it may not have the contents needed for a bigger emergency. Balance is the key to determine the size of the kit.
- Practice using the kit regularly. Continuous evaluation of its contents keeps the scout familiar with their kit and how to find items in it. There’s nothing worse than needing something quickly and not being able to find it. Adjust the contents based on your experiences, removing what you don’t need and adding what you do. Inspect your first aid kit at least once a month to make



5d

sure it has everything you need, and to familiarize yourself with the kit. Make sure you've replaced items you used.

- Contents should reflect the scout's abilities. For example, the youngest Pathfinder scout may need only a small plastic bag of Band-Aids®, whereas a scout who earned the First Aid special proficiency badge who has more training and experience, will have a larger, more thorough kit.
- It's helpful if the kit's container is a bright color and easy to find deep in a pack or laying on the ground, especially at night.
- Contents should be organized, labeled with a sharpie, and easy to read in the dark using a light, or easy to find quickly by someone in an emergency.
- Similar items should be grouped together with a rubber band or small plastic bags. Practice using your kit and ask yourself, "Does the kit keep these things organized or do they spill out on the ground when you open it?"

Keep in mind that you might need a larger, more thorough first aid kit for group events or outings. In that case, make sure you have more of everything you usually need, and pack those things you're trained to use that might be only for rare problems. Be sure everyone knows where the group first aid kit is stored, as you might not be around to tell people or help use it.

Check the contents of first aid kits regularly. Items are used and sometimes their use-by or expiration date is exceeded. Keep all out of date or non-sterile dressings for a practice first aid kit or for use on training activities.

Patrol Activities and First Aid Games

Runaround

Explain a scenario for a first aid situation. Offer three choices of treatment on large pieces of card (two are incorrect and one is correct). The participants stand in front of the correct option.

What's in the Box?

In turn, participants, without looking, take out an object from a first aid box and describe to everyone else what it is and how it is used. You may throw in a few silly items which should not be kept in a first aid kit! Word searches, anagrams and quiz type games can all be used to identify the contents of a first aid box.

Incident Hike

The participants are put into patrols and undertake the hike coming across several types of “incidents” with casualties. Each group then has to act accordingly with different members being responsible for different casualties. At the end of the hike, the groups should submit their logbooks and compare notes to see if they correspond with the Examiner’s and casualty’s recollection of the treatment! Try to use people that the participants do not know as casualties. They are more likely to act realistically under these circumstances. Checking their progress.

Explore and Discuss

Concentration spans, especially for young people, can be very short. Try exploring each aspect of first aid for about half an hour over a three month period.

Patient Care Reports

A simple internet search will help you find an example of a generic care report template you’ll be comfortable using. You may find you simply prefer to use a notebook and capture the important information in your own format.

Often medical reports are written in a template called **SOAP**, an acronym for:

- **Subjective:** Things we've heard about the incident, or things the patient told us
- **Objective:** Our observations, or things we've discovered during our assessment
- **Assessment:** A list of problems we need to address, or what we think is wrong
- **Plan:** Our treatment, or what we did

A typical medical note sample is on the opposite page. Consider printing several copies and adding them to your first aid kit.

FIRST AID TREATMENT FORM						
RESPONDER NAME: _____		DATE: _____		TIME: _____		
PATIENT INFO						
NAME: _____						
AGE: _____			GENDER: _____			
SUBJECTIVE / SUMMARY OF EVENTS / STORY OF WHAT HAPPENED						
<i>(Chief complaint, cause of injury or illness)</i>						

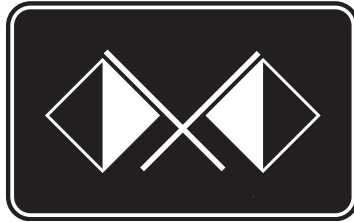
OBJECTIVE / OBSERVATIONS / FINDINGS						
<i>(Describe what you found—this may be different than what people told you)</i>						

HISTORY						
SYMPTOMS: _____						
ALLERGIES: _____						
MEDICATIONS: _____						
PRE-EXISTING CONDITIONS: _____						
LAST FOOD/DRINK: _____						
EVENTS OCCURRED: _____						
VITAL SIGNS						
TIME:	🕒	🕒	🕒	🕒	🕒	🕒
RESPONSIVE:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HEART RATE:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RESPIRATION:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ASSESSMENT / DIAGNOSIS						

TREATMENT PLAN						

End of Chapter Reflection Questions

- How can knowing first aid help you be more confident in an emergency?
- Have you or someone you know been in an emergency situation where you had to help? What happened?
- Why do you think consent is important? When might someone refuse to be treated?
- Why do you think that first aid courses require you to re-certify on a regular basis?



13

SIGNALING

Being able to communicate is a wonderful thing. It allows us to get to know one another, help each other, and convey and receive information. We usually speak to communicate. There are times when that's not possible, but we still need to convey and receive that information.

In some situations, for example, we may not be able to use speech because the other person is too far away to hear. This is where signaling becomes important. For scouting, there are three types of signaling, and a scout may choose any or all of them to learn. Of course, using any of them to communicate requires that both the sender of the information and the receiver understand the method, so that the message is understood.

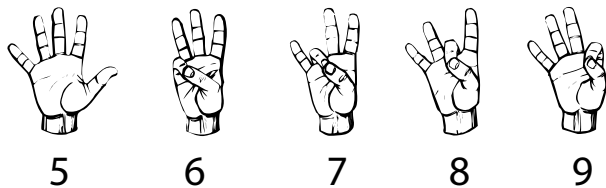
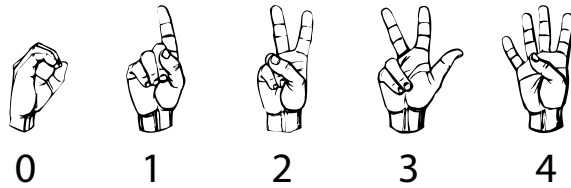
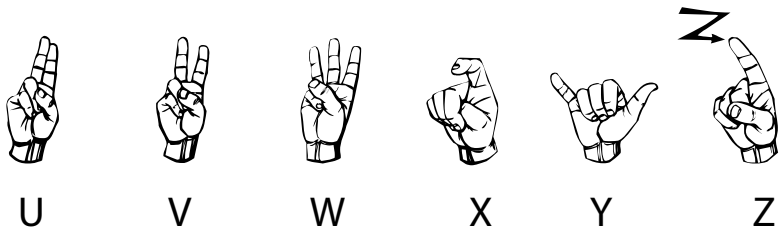
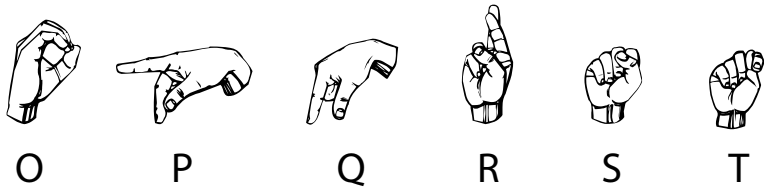
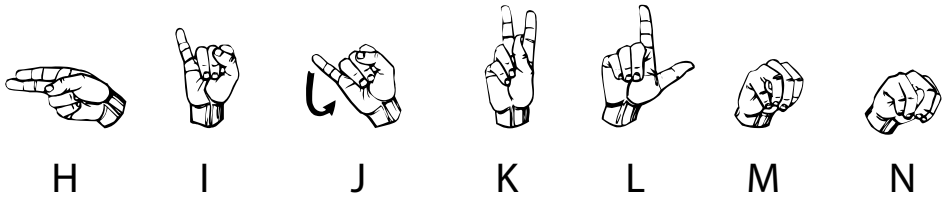
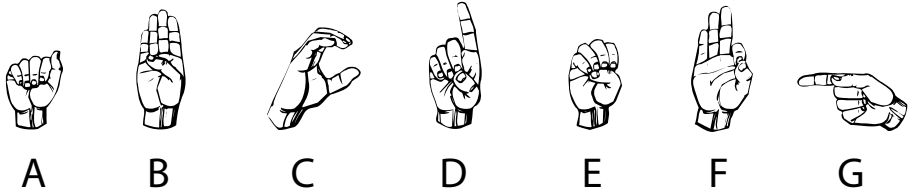
While there are many different systems of signaling, Pathfinders working on Second Class are encouraged to learn American Sign Language, Morse code, or semaphore.

American Sign Language

American Sign Language (ASL) is the fourth most used language in the United States. It is a common way to communicate with people who are hard-of-hearing or



ASL Manual Alphabet



deaf. It is a beautiful and expressive means of communication and can be used in many settings to make the situation more accessible for those who can't hear.

ASL probably originated in the American School for the Deaf in Hartford, Connecticut in 1817. However, sign language of many types has been used for hundreds of years. In 1514 Francisco Vásquez de Coronado reported that some of the Native Americans used a sign language to communicate between tribes of different languages.

Learning the basic signs for the letters in the ASL alphabet is a straightforward lesson in memorization. Practice a few letters at a time until you can recall them from memory, and then move on to the next few letters. Work your way along the entire alphabet. Once you've done that, begin forming simple words, and your name.

Note that there are many signs that stand for words, without having to spell out the entire word. The way these signs are made can vary based on where you live, and how people in that area sign to each other—much like how regional accents in spoken communication. Keep in mind that ASL signs may use one or both hands, and that handshape, movement, and palm orientation are all important and can change the meaning. There are many resources online to learn ASL, but on the opposite page is the basic ASL manual alphabet to get started.

Morse Code

Morse code is a method of communicating by having a code of “dots” and “dashes” for each letter and transmitting that code in any number of ways. Morse code is named for Samuel F. B. Morse, who in 1844 invented it for use on the telegraph.

The International Morse Code has 26 English letters (A–Z), some non-English letters, numbers, and a small set of punctuation and procedural signals. You've probably already heard of the distress signal: SOS—three dots, three dashes, and three dots. It's internationally recognized as the signal for distress.

The Morse system is still in use today by amateur radio operators and, in some cases, in aviation. Also, Morse code has helped people with disabilities to communicate, such as those with spinal cord injuries or visual impairments. In some cases, those



2b

individuals can use Morse code to input text when using a smartphone.

When learning Morse Code, remember that a dash is always three times the length of a dot. So, the time for three dots equals the time for one dash. Using this system, you can use short or long flashes of a light, short or long whistles, or short or long buzzer or telegraph sounds to convey your message.

Important items to remember:

- A dash is three times the length of a dot.
- A pause of time equal to the length of a dash must be made at the end of each letter.
- A letter must be made continuously from start to finish, without any interval between the elements that compose it.

These things are important to prevent a letter being misread as two or more other letters. For instance, the letter C is $\text{—}•\text{—}•$, and the letter N is $\text{—}•$, therefore if a pause was made after the first dot in C, it would be read as two Ns.

Learning the Alphabet

In official Morse terminology, a dot is referenced as a *dit*, pronounced “dih” with a short “i” sound, and dashes are referred to as *dah*. To learn the Morse alphabet, you want to become familiar with how each letter is represented by its series of dots and dashes and know what they sound like if you said them with the dit and dah pattern.

When going through the Morse alphabet, note each individual letter and numeral, and say aloud the corresponding dit-dah. Over time, you’ll be able to remember bits of code automatically by both their sound and appearance.

Remember that spacing is also important. While you say your dit-dah patterns, keep in mind that between each letter should be silence the length of a dah, and between each word should be silence the length of seven dits.

The Morse alphabet is so made up that those letters that occur most often in an English sentence are represented by the shortest symbols. Don’t attempt to learn the alphabet until you have practiced a consistent method of sending dots and dashes. An excellent method of practicing is to send a series of dots and dashes continuously until tired, never pausing at the top of the dot or dash, but always making an appreciable pause at the bottom of the dash.

The simplest way to learn the alphabet is as follows:

Simple	E •	T —
	I ..	M ——
	S ...	O ———
	H	
Opposites	A •—	—• N
	B —...•	...— V
	D —...•	..— U
	F ..—•	•—.. L
	G ——•	•— — W
	Q ——•—	—•— — Y
Sandwiches	K —•—	R •—•
	P •— —•	X —••—
No opposites	C —•—•	
	J •— — —	
	Z — —••	
Numerals	1 • — — — —	6 —••••
	2 .. — — —	7 — —•••
	3 ... — —	8 — — —••
	4 —	9 — — — —•
	5•	0 — — — — —

Learn E, I, S, H, and T, M, O, first; they present no difficulty. Then try sending and reading words formed by those seven letters, such as IT, IS, SHE, HIS, SET, TORN, MET, HOT, TEST, SHOES, HOST, etc., until the letters are easily read and sent. Then take the next two letters in the list, A and N, and make words with those, in conjunction with the seven letters already learned; then take two more letters, and so on. Don't try to learn too many letters at first, or you will only muddle yourself. Learn a few letters thoroughly, and don't proceed to the next letters until the first ones are thoroughly mastered. In sending words combine the letters last learned with the letters already known.

Once you have some basic letters memorized (both by sight and sound), begin creating basic words, such as IT, IS, HOT, MET, MESH, and so forth. Then begin

Quick Key



A •—
B —...•
C —•—•
D —...•
E •
F ..—•
G ——•
H
I ..
J •— — —
K —•—
L •—••
M ——
N —•
O ———
P •— —•
Q ——•—
R •—•
S ...
T —
U ..—
V ...—
W •— —
X —••—
Y —•— —
Z — —••



Crack the Code

If you start with this short list of words, you can actually express a lot even while you're starting out, allowing you to send a wide range of messages back and forth. What kinds of things could you say? How could you use these as part of a game in camp? Get a friend and try it out!

HELLO	SOS	STOP
BYE	FOOD	FUN
YES	WATER	THANKS
NO	FIRE	HOME
SOON	NEED	SORRY
LATER	RUN	QUESTION
HELP	HIDE	

adding several new letters at a time until you feel you know them confidently.

You can listen to Morse code recordings on the internet, which is helpful in learning. Work with a friend to create some basic messages and practice sending them to each other. You could start by sitting across a table from each other and tapping, and as you get better at it, go outside at night, stand a distance apart, and send and receive messages via flashlight! Another idea is to copy a children's book that has short sentences that you can turn into Morse code. You can also write to yourself in Morse, maybe as a journal entry, grocery list, or haiku.

Morse has a rich history and is still in use today. It's a worthwhile thing to learn and comes in handy for communicating in many situations where direct speech is not an option.



2c

Semaphore

Semaphore is a way of communicating over a distance by using hand-held flags on two short poles, paddles, or occasionally bare or gloved hands. In the past, semaphore was often used in communication at sea, but it is still in use today in some settings.

Based on the position the flags are held on each side of the body, a receiver can "read" the message. Flags work well during daylight hours, but to use semaphore at night you'll require lighted wands. Keep what's behind you in mind, so the flags don't blend into the background for the person reading the signals. A dark blue flag can be used for a light background, or white, red, and yellow flags could be used when there is a dark background.

Semaphore Alphabet



A-1



B-2



C-3



D-4



E-5



F-6



G-7



H-8



I-9



J-0



K



L



M



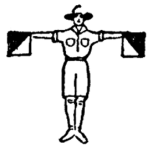
N



O



P



Q



R



S



T



U



V



W



X



Y



Z



Attention



Interval



Numerals



Also, the sender and reader of the signals are far apart when using semaphore (although within sight of each other), so there are signals that indicate where there are spaces between words, when the message is starting and stopping, when an error has been made, and so on. In addition, some signals have multiple meanings (they can mean a letter and a number), so there is a signal to indicate that the next signals are numbers. To indicate that letters will be signaled next, the signal person sends the “J” signal.

Once these different signal positions are memorized along with the signals for space, numerals, and so forth, begin working on your speed. You want to work your way up to a rate of twenty letters per minute.

At the start, know that sending and reading semaphore takes some practice—but it’s achievable. Think about the following when you’re sending semaphore:

1. Stand facing the person you’re sending a message to head on, so they can see you clearly.
2. Hold the flags with your arms straight, so your arm and flag form one straight line.

3. Try to be as exact as you can in positioning the letters. The most common error is not being specific in the positioning of the flags, making it difficult for the receiver to know which signal is being sent.
4. In sending letters where the flags are close together, such as with O and W, keep the flags separate and don't allow them to cover one another.
5. When forming letters when both flags are on the same side of the body, such as with O, X, and W, keep your head and eyes straight to the front, even though the flags may cross the body.
6. TAKE YOUR TIME. It is better to go slower and allow the reader to read without confusion, than to send too fast. After all, the whole point is to communicate—not to look fancy or silly with the flags.

Don't practice reading semaphore by signaling before a mirror. The letters are reversed and will only confuse you when you try to read an actual signaler.

To send numbers, send the numeral sign, then sign the numbers. After you're done sending the numbers, send the alphabetical sign (letter J) to indicate that you're returning to sending letters.

Sending a Message in Semaphore

In sending words or groups of letters, arms are brought down to the "ready position" after each word or group. The arms are not brought back to the ready position after each letter but are moved smartly to position for each letter in the word, making a pause at each letter according to the rate of sending.

Ideally the sender should have someone to read the message to them, and the receiver should have someone to write it for them. The reader should say each letter aloud, and when the sender comes down to the ready position the reader says "group," which informs the writer that it is the end of a word or group. Don't try to guess the word: this is how mistakes are made.

End of Chapter Reflection Questions

- Can you think of three situations where using signaling could be fun or useful?
- Which of the three signaling methods do you think is most used today? Why?
- How is texting like signaling? How is it different?



14

COOKING

The best thing about cooking is that, when done well, you have amazing things to eat. Eating is something we need to do even when we're not scouting—and being able to cook can save you money, plus teach you skills you'll use your whole life. You'll also be healthier.

Being able to cook in a variety of ways makes it possible for you to have delicious food even when you're not provided with a kitchen.

Cooking can vary from putting a hot dog on a stick over a campfire to something elaborate, like a five-course meal served at an elegant dining table. Usually, however, it's something in between. The important thing is to get comfortable with cooking a variety of meals in a variety of settings and learn how you can make the most of what you have to enjoy the food you cook.

In the past, scouts had to also catch their food before they cooked it (for example, rabbits and birds), but now you can usually buy the ingredients and go from there. If you are in the situation where you need/want to catch it first (for example, fish), be sure that you are doing so in place where it is legal, and you have permission. Also, check to be sure you have the appropriate tools to prepare what you caught.

In general, cooking requires planning ahead to make sure you have the ingredients you need, the tools you'll use, and a method of cooking the food. Are you going to use a campfire? A backpacking stove? An oven? Also, think about who you'll be cooking for and what kind of food they can and like to eat, and you'll be much further down the path towards a successful meal.

Cooking requires an understanding of food and cooking safety. If you're cooking meat, make sure you know what temperature it needs to cook to. For example, you need to cook chicken to at least 165°F to make it safe to eat, and you can check that by either using a good food thermometer, or by cutting it open and making sure that it is all cooked and there is no pink left. Ingredients that are refrigerated before cooking must also stay cold when you take those ingredients camping, so plan ahead for a way to keep those things, like meat and milk, cold.



Questions To Ask When Planning To Cook

What do the group I'll be cooking for like to eat? For example, are any of them vegetarians, have food allergies, or other dietary restrictions?

What are the ingredients and how much of each do I need?

How will I store the ingredients so that they remain safe to eat? Do I need a cooler and ice? Will I need to hang a bag of food in a tree to keep it away from critters?

What tools will I need to cook the food? Can I get those things to where I will be cooking? Will I need a spoon to stir dough together, or a spatula to flip pancakes? What will I cook the food in? (You don't want to have to haul a cast iron skillet with you on a backpacking trip!)

What method of heat will I use to cook this food? A campfire? A backpacking stove? If cooking in a Dutch oven, you may need to bring along charcoal briquettes.

Figuring Out What to Cook

Sometimes, thinking about what to cook can be the hardest part of cooking. This gets even more challenging when there's a big group to cook for, and especially if they have a wide variety of dietary restrictions. One approach is to come up with something that can be cooked or prepared in parts, and then have each person assemble their own meal.

For example, you could create a taco bar that has tortillas, cooked ground beef, beans, grilled vegetables, grated cheese, guacamole, salsa, and sour cream, each in their own bowl or container. Then, each person brings their plate up and makes their own tacos in a way that suits them. This can also be done with pasta by keeping sauce, cheese, and meat or veggies separate, and for breakfast options by laying out cereal, pancakes, and scrambled eggs.



Beforehand, write down all your ingredients and the amounts you need of each. Remember things like water, broth, spices, and condiments to make a comprehensive shopping list. Also list all the meals and snacks you or your group may need food for, so that you don't run short on things to cook. Going hungry while scouting is no fun.

It helps to write out a menu for each meal for each day that you'll be scouting, and then list the ingredients of those meals. Make one master list so that you know what to get. Also, think about storing your food and plan appropriately. Getting food that requires a refrigeration isn't a good idea when you're backpacking.

Storing Food Safely

The last thing you want is to get a bunch of food, store it incorrectly, and end up with everyone getting sick. Also, animals could easily steal your food, leaving the troop with limited supplies. Those are both terrible outcomes. How you store your food will depend on what the food is, where you are going, and how you are getting there. You probably don't want to plan to cook a whole raw chicken when you're backpacking in bear country, for example!

If you are car camping and brought food that needs to stay cold, you'll probably use a cooler. Make sure to get ice! At least one block of ice weighing ten pounds

works best to keep food cold, but a big bag of ice cubes (the 20 pound bag) purchased at the store will also work. You'll need to drain the water and replace it with new ice at least once per day if it's a multi-day trip. Another tip is to plan to use the food that needs to stay cold on the first day, and then eat non-perishable food on the other days.

You could also freeze some of the food you take. That will help keep the cooler cold—but you'll still want to use ice too. Double bag the items that will go in your cooler (especially raw meat) so that they don't leak onto each other, and so water from the melted ice doesn't get into the food. A cooler full of cold food stays colder than a partially full cooler. If there are multiple coolers for multiple days, consolidate them when you can. Make sure to close the cooler as soon as you can, so that it stays cold (and remind everyone you're with about this too)!

If you'll be in an established campground, you'll want to keep all food secured in your cooler or car during the day, unless you're actively eating it. At night, make sure all food is stored inside a vehicle or a metal bear box if there is one. Raccoons and bears are good at opening coolers when everyone is asleep.

If you'll be in the backcountry, think ahead to how you'll store your food. You can use a metal food locker if one is available, you can take a bear canister or bear bag with you, or you can hang your food on a tree or pole. If you choose this last option, make sure to bring with you one or more bear canisters, enough to hold all the food.

**6c**

Cooking Tools

The tools you'll need to make your meals depend on what you plan to cook. It's a good idea to think about each meal and what you'll need from start to finish. For example, if you're planning on pancakes, you'll need a bowl to mix batter in, a spoon to mix it, a pan to cook them, a spatula to flip them, and tubs in which to wash all those things when you're done eating!

When thinking about these tools, think about weight, breakability, and usability.

- Will it be so heavy that your patrol box is hard to move?

- Can you take a plastic or metal mixing bowl instead of a ceramic bowl so there's less chance of breaking it?
- Also, think about how heavy pots and pans can be. It can be hard to move around a big cast iron pan, but a steel pan might not be too heavy.
- Camping and scouting is not the place to use your parents' really expensive pans, and some materials can be damaged when cooking over an open flame, so check with an adult before taking anything out of a home kitchen.

Here is a list of items often included in a **patrol box** for scout patrol cooking:

- Stove and propane
- Large pot with lid
- Smaller pot
- Frying pan/skillet x 2
- Whisk
- Spatula/flipper x 2
- Tongs
- Rubber spatulas (for stirring/mixing) x 2
- Big knife
- Small knife
- Wooden spoons x 3
- Metal serving spoons x 2
- Measuring cups and spoons
- Cutting board x 2
- Can opener
- Plastic or metal mixing bowls
- Collapsible water cube
- Fire/grill tongs
- Dishcloths
- Tablecloth
- Potholders x 2
- Clothes pins x 8 (to hang up mess kits, secure tablecloth to table, etc.)

For **dishwashing station** (may be packed in the patrol box):

- Bleach
- Soap
- Scrubbers/scrappers
- Three tubs: One to wash with soap, one to rinse, one to sanitize with bleach or sanitizing tablets

The following are items that need regular replacing, so check **supplies** before/after each trip:

- Heavy duty aluminum foil
- Ziploc bags—quart and gallon
- Brown paper bags (for scout lunches, for example)
- Paper towels
- Dish soap
- Hand soap
- Hand sanitizer
- Sponges/scrubbers
- Trash bags

Additional or alternative things you might consider are:

- Dutch oven (and briquettes)
- Light weight backpacking stove

In addition, each scout should have a **mess kit** that includes:

- Plate and/or bowl
- Cup
- Fork
- Knife
- Spoon

Every item should be labeled with the scout's name. Often, these are kept in a mesh bag that can be hung from a line to let the mess kit drip dry after being washed.



7

Camp Cooking

There are many different methods of cooking. You can cook something ahead of time, take it with you, and reheat it on-site. You can dehydrate food, and then just add hot water. You can make a stew or a cake or many other things in a Dutch oven. Perhaps you wrap the food in foil and cook it right in the coals of your campfire.

If you are car camping, you'll probably do a lot of cooking on a camp stove. This will be a part of your patrol box and require some type of fuel. Make sure you bring enough fuel with you for the trip! Camp stoves usually allow you to control the level of heat you're using and can be easily turned off when you're done.

Or you might decide to cook over a fire.

Types of Cooking Fires



You might make a **rock fireplace**. If there are plenty of rocks about, consider choosing rocks that are nearly flat on the top and bottom. Arrange them close enough together to support your cooking utensils. Then, build the fire in between.



A **trench fire** is made by digging a trench just wide enough to fit your pot, about a foot deep, and 2–3 feet long, with the trench wider at the end where the wind is. The trench fireplace doesn't require that much fuel and is safer on a windy day than above-the-ground fires, but it does require that you cook in a place where you can dig—and that you brought a shovel.



A **hunter's fireplace** requires at least two logs of hardwood, 2 to 3 feet long, 6 to 9 inches thick. Put them side by side about 6 inches apart and make the fire in the middle. Replace the logs from time to time.

But first, you'll need to practice laying and lighting a fire, and turning it into the right type of fire for cooking.

How to Lay and Light a Fire

Starting a fire is really about bringing together heat, air, and fuel in the right amounts. Too much fuel at the beginning doesn't work—imagine holding a match under a fat log hoping it will start a fire—and too much fuel once the fire's going could burn your meal or start a serious problem. Air is the same. You need enough oxygen to get your first small flame to grow, but blow too hard and you'll blow it out and have to start over.

To get started, you'll need:

- Matches (with an adult's permission and supervision)
- Dry tinder (small, flammable material like dry leaves, twigs, or birch bark)
- Kindling (small sticks and branches)
- Fuel wood (larger pieces of firewood)

1. Gather materials.

Before beginning, ensure you have gathered all the necessary materials. Begin by setting up a large bucket of water or fire extinguisher nearby for safety.

Search for dry tinder, kindling, and fuel wood. Dry materials are essential for a successful fire, as damp materials can make ignition challenging. If you don't have dry materials, try making feather sticks or carving wood shavings for tinder. Usually, unless you're pulling wood out of a pond or swamp, even if the



outside of a piece of wood is wet the inside will have dry wood.

2. Prepare fire pit.

Choose a safe and suitable location for your fire pit. Clear away any dry leaves, grass, or other flammable objects within a 3-foot radius. Create a small depression in the center of the pit to contain the fire.

3. Arrange tinder.

Take your dry tinder and arrange it in a loose and airy bundle within the fire pit depression. This will allow air to circulate and promote faster ignition. Ensure the tinder is within reach, as you'll need it shortly.

4. Set up kindling.

Position your kindling in a pyramid shape above the tinder. Leave an opening on one side to provide easy access for lighting the tinder. The kindling acts as the bridge between the small tinder and larger fuel wood.

5. Prepare match.

Hold the match securely between your thumb and forefinger. Keep the matchbox or container close by, but away from the fire pit. Always remember to point the match away from yourself and others.

6. Ignite match.

Strike the match against the striker pad in one swift, controlled motion. Ensure the match ignites completely before proceeding to the next step.

7. Light tinder.

With the lit match, carefully bring the flame to the tinder, aiming for the most easily ignitable spot. Hold the match close to the tinder, allowing the flame to spread and catch onto the tinder material. Avoid smothering the flame or letting it burn out prematurely.

8. Encourage kindling ignition.

As the tinder catches fire, gently blow on the flames to encourage their growth. The heat generated from the burning tinder should ignite the kindling above it. Continue blowing, ensuring the flames are getting enough oxygen to spread.

9. Add fuel wood.

Once the kindling is burning steadily, add progressively larger pieces of fuel wood to sustain the fire. Place the wood around the burning kindling, leaving enough space for air to circulate and feed the flames. Add additional wood as needed to keep the fire going.

Now that you've got your fire started, you'll want to actively manage it to get good hot coals that will make the high, even heat you want for cooking.

10. Space logs.

To ensure even heat distribution, leave a small gap between the logs. This allows oxygen to reach the flames, creating a well-balanced fire. Avoid stacking the wood tightly together.

11. Keep it going.

Monitor the fire closely and tend to it regularly. Use a long stick or fire poker to move the logs around, promoting better airflow and keeping the flames alive. Adjust the logs if needed to maintain an even burn.

Safety Tip

Keep a watchful eye on the fire at all times. Never leave it unattended, and keep that bucket of water for a fire extinguisher.



12. Control flames.

To achieve high, even heat, control the flames by adjusting the size of the fire. If the flames are too high, gently blow on them or add smaller pieces of wood. If the flames are too low, add larger logs to increase the heat.

13. Wait.

Patience is key! Cooking over a campfire takes time, so be patient. Allow the fire to burn down to a bed of glowing embers. These embers will provide consistent, long-lasting heat for your cooking needs.

14. Start cooking.

Once you have a bed of glowing embers, you're ready to cook. Place a grill or a grate over the fire, allowing it to heat up. You can now cook delicious meals over the high, even heat generated by your well-managed campfire!

Methods of Campfire Cooking

Foil Packet

Foil packet cooking is the simplest form of cooking on a campfire. It basically consists of putting raw food (vegetables, sausage, etc.) in piles that you season with spices, salt, and pepper. Then, you wrap the piles in pieces of aluminum foil and put those foil packets in the hot coals of a campfire. Be careful getting the packets back out of the coals. It's a good idea to use long-handled tongs or a long stick, and then a potholder to pick up the packets. Also, use caution when opening the packets: the food is hot!

Dutch Oven

Dutch oven cooking is a little more complicated, but the results are worth it. This is a method where the meal cooks inside a special metal pot, and the heat is provided by coals (from a fire or from charcoal briquettes) placed strategically on and under the pot.



When you are Dutch oven cooking, you'll want to have the following:

- For 8–12 people, one 12-inch camp Dutch oven;
- One bag of charcoal briquettes of good quality and regular size;
- A charcoal chimney starter, if possible;
- Matches or lighter;
- Long-handled tongs for moving hot coals;
- Lid lifter—a metal device for securely lifting a hot oven lid;
- Heavy-duty barbecue gloves;
- Recipes and ingredients.

To control the temperature, you'll need to arrange coals underneath and on top of the lid. Generally, fewer coals go underneath, which keeps the food from burning. Here's a chart for number of coals/briquettes in each spot:

Dutch Oven Temperature Chart

		OVEN TEMPERATURE						
		325°	350°	375°	400°	425°	450°	
DUTCH OVEN DIAMETER	8"	Total briquettes On lid / Underneath	15 10 / 5	16 11 / 5	17 11 / 6	18 12 / 6	19 13 / 6	20 14 / 6
	10"	Total briquettes On lid / Underneath	19 13 / 6	21 14 / 7	23 16 / 7	25 17 / 8	27 18 / 9	29 19 / 10
	12"	Total briquettes On lid / Underneath	23 16 / 7	25 17 / 8	27 18 / 9	29 19 / 10	31 21 / 10	33 22 / 11
	14"	Total briquettes On lid / Underneath	30 20 / 10	32 21 / 11	34 22 / 12	36 24 / 12	38 25 / 13	40 26 / 14
	16"	Total briquettes On lid / Underneath	37 25 / 12	39 26 / 13	41 27 / 14	43 28 / 15	45 29 / 16	47 30 / 17

Food Safety in Cooking

To make sure that no one gets sick from the food, always follow food safety practices. Always wash your hands with soap and water before preparing food, or at minimum use hand sanitizer thoroughly. Several of these rules have been mentioned before, but they bear repeating:

- Never use the same cutting board for meat and non-meat items. And always wash your hands as soon as you're done touching raw meat, seafood, eggs, and poultry.
- Keep hot foods hot, and cold foods cold. Don't leave food out at room/outdoor temperatures for more than two hours, and if it's above 90°F outside, reduce the time to one hour or less.
- Never drink directly from streams, lakes, or rivers, even if the water looks clean. If you don't have a clean water source, be sure to filter, boil or otherwise treat the drinking water.
- When cooking meat, make sure it's thoroughly cooked before eating it. Pork should be cooked to at least 145°F, chicken to at least 165°F, and beef to 160°F and until you can't see any pink. If you don't have a thermometer, make sure that the thickest part of the meat is not pink.

Cooking Cleanup

Finally, think about what you need to clean up when the cooking is done. What will you store any leftovers in? How will you clean your workspace and tools? Cleaning up after making a meal is part of the entire job, so don't get so caught up in the making that you forget about the clean up!

It's a good idea to have several tubs for use when car camping, especially with a group:

- One for hot soapy water
- One for cold rinse water
- One for cold water with some bleach

If you're backpacking, hopefully you're eating mostly pre-cooked food or just rehydrating and there's not as much to clean up. A little bit of water to wipe down thoroughly can go a long way.

**6b**

Simple Meal Planning

Cooking has many components, but it's all worth it and one of the most useful life skills you can master.

Below are some planned meals with which you could begin building your cooking skills. These are just basics—there are lots of resources out there about cooking, including cookbooks, cooking shows, blogs, and family members. So, the suggestions here are just to get you started.

Breakfast

Pancakes are a great food to learn to cook and are not that hard. You'll need ingredients like flour, milk, eggs, butter, or oil, and baking powder or baking soda, as well as a pan or griddle, a spatula, a mess kit to eat them on, and maybe some syrup.

Keep in mind that you don't want the heat too high, otherwise you end up with pancakes that are burned on the outside and uncooked in the center. Instead, pour a small circle of batter into your pan or griddle that's over medium heat, wait until the bubbles stop filling up when they pop, then flip the pancake over and cook the other side. Tip the edge up to make sure the second side isn't getting over-cooked.

Other ideas for breakfast are oatmeal, scrambled eggs, muffins (baked ahead of time), and bacon.

Lunch

Not all cooking includes heat. Sometimes it's just mixing things up in the right proportions. For example, a tuna fish sandwich usually has canned tuna, mayonnaise, and relish that has been all mixed together and is then put on bread. Of course, everyone makes it their own creative way. Serve it with a side of potato chips or fruit, and you've got a good meal.

Other ideas for lunch might include cheese and crackers served with apple slices, soup with grilled cheese sandwiches, or quesadillas.

Dinner

So many options! Perhaps you like stew, or pasta, or burgers, or tacos, or breakfast (pancakes for dinner are totally an option). Dinner is often a more substantial meal, and it's one you have plenty of time for since you'll usually be done hiking for the day. Perhaps you put together a salad with lettuce, bell pepper, tomatoes, and cucumbers, and you also fry some fish, and you also have potatoes that you wrapped in foil and put among your campfire coals. All those things count as cooking!

Recipes

Below are some specific recipes, but if there's something in a recipe that doesn't work for you, use an alternative, either in terms of ingredients or in terms of completely different recipes. These are just to get you thinking. As a scout, you should feel encouraged to experiment and cook often, so you can develop a feeling of confidence, and continue to feed yourself and others delicious and nourishing meals.

Cooking is a useful skill that can bring great joy, not only during scouting, but throughout life. Have fun with it!

Measurement Abbreviations

It's good to know these quick abbreviations frequently used in American recipes—put in too much salt, and you may ruin an otherwise tasty dish. Pay special attention when letters are capital or lowercase, as sometimes they mean different things.

C. or c. = cup	fl. oz. = fluid ounce
t. or tsp. = teaspoon	pt. = pint
T., TB., or tbsp. = tablespoon	qt. = quart
lb. = pound	gal. = gallon
oz. = ounce	



Basic Pancakes

Serves 4

You can buy pancake mix that just requires water, or you can try these and just mix up the dry ingredients before your trip or in camp.

1 c. all-purpose flour	1 egg
2 t. baking powder	1 c. milk
1 t. salt	2 T. vegetable oil
2 t. white sugar	

Mix flour, sugar, baking powder, and salt. Make a well in the center. Pour in milk, egg, and oil. Mix until smooth or with just a few lumps. Heat a lightly oiled griddle or frying pan over medium heat. Pour approximately $\frac{1}{4}$ c. onto the griddle or pan for each pancake. Flip when bubbles stop refilling, and brown on the other side.



Walking Tacos

Serves 6–8

This recipe has two components: the chili and the tacos.

For the chili:

2 T. coconut oil
 2 medium onions, diced
 2 lb. ground meat (beef, pork, bison, or elk
 are all good choices)
 4 cloves garlic, minced
 1 6-oz. can tomato paste
 2 T. chili powder
 2 t. dried oregano
 1 T. unsweetened cocoa powder
 2 T. ground cumin
 1 t. ground allspice
 1 t. salt
 2 cans diced tomatoes; fire roasted
 2 c. beef broth
 2 cans beans (pinto or kidney)

For the tacos:

2 bags Fritos[®] corn chips
 2 cups shredded Mexican-blend cheese
 1 head lettuce, shredded
 1 can olives, slices
 1 tomato, diced
 Sour cream

To make the chili, saute the diced onion with the oil in the Dutch oven over the campfire (or in a frying pan on a camp stove), until the onion is softened. Add the meat and stir un-

til browned. Add the spices and tomato paste, mixing well to coat the meat in the spices. Add the beans, tomatoes, and broth. Simmer until chili consistency, stirring often.

To make the walking tacos, put a handful of chips in a bowl and add a scoop of chili. Dress with the toppings of your choice. Enjoy!



Chicken Foil Packets

Serves 6–8

3 lb. chicken breasts
 1 T. All Seasons Mix, similar to Morton
 Nature's Season seasoning blend
 Salt & pepper, to taste
 Ranch dressing
 Parmesan cheese
 Water
 2.5 lb. small red potatoes, cut into quarters
 ½ lb. baby carrots
 1 bell pepper, cut into strips
 Non-stick cooking spray
 Aluminum foil, cut into sheets 12x18
 inches
 Black sharpie

All Seasons Mix

(Make this mix ahead, and feel free to omit or substitute or buy a similar pre-made mix.)

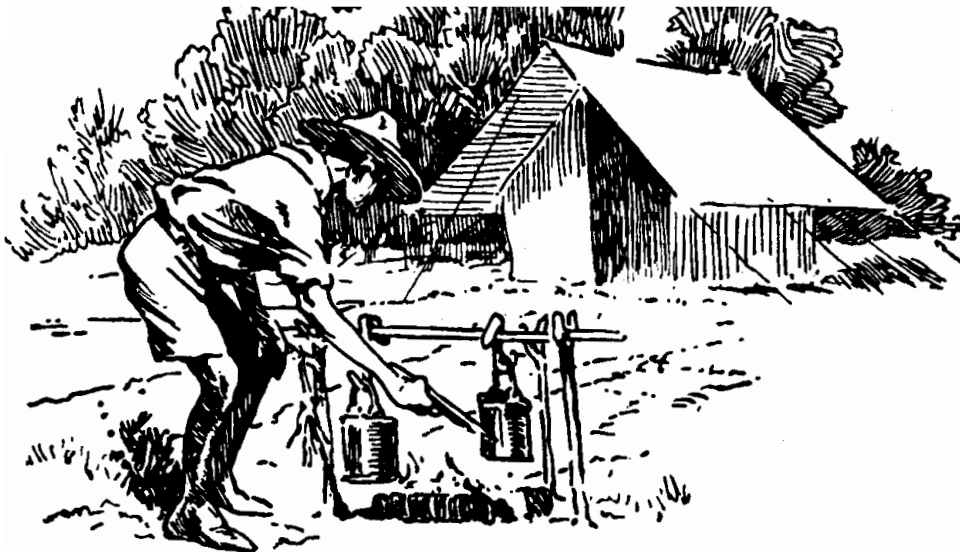
2 T. sea salt
 2 T. onion powder
 1 T. garlic powder
 1 T. paprika
 1 ½ t. mustard powder
 1 ¼ t. dried thyme
 1 T. dried parsley
 ½ t. black pepper
 ½ t. celery seed

Prepare charcoal for cooking. Cut chicken breasts into bite size pieces. Sprinkle with All Season's Mix. Layout in order, for an assembly line: foil sheets, non-stick cooking spray, chicken, ranch dressing, veggies, cheese, and water

Each person gets to make their own packet by spraying a sheet of foil with cooking spray and placing some chicken, ranch dressing, and veggies of their choice in the packet. Be sure to add a tablespoon of water to each packet to help the veggies steam.

Fold the edges of the packet together to make a sealed foil envelope. Try to leave space for the steam inside to circulate. Write name on packet with sharpie.

Place the packets directly on prepared coals. Cook for 10 minutes, then rotate and cook for another 5–10 minutes until vegetables are tender and chicken is fully cooked.



To serve, cut a large X across the top of each packet and fold back the hot foil carefully to reveal the yumminess inside.



Cherry Chocolate Lava Cake

Serves 4–6

1 can cherry pie filling
1 box chocolate cake mix
1 can lemon-lime soda

1 bag chocolate chips
Non-stick cooking spray

Prepare charcoal for cooking. Spray the bottom and sides of the Dutch oven with cooking spray. Dump the pie filling into the bottom of the Dutch oven. Pour the cake mix on top of the pie filling, spreading evenly. Slowly pour the soda over the cake mix. It will foam. Try to cover the entire cake. It won't all mix together and some may still be powdery. That's normal. Sprinkle the chocolate chips over the soda.

Put the lid on the Dutch oven and place 16 charcoal briquettes on the top of the lid. Make a circle of 8 charcoal briquettes and place the Dutch oven on top of them. Bake the cake for about an hour, checking after 30 minutes and again at 45. It can cook quickly depending on the heat of the charcoal.

When the cake looks baked and the edges are a bit firm, the cake is done. Get a big spoon to scoop it into bowls and enjoy!

Your Recipes

Name: _____

Ingredients: _____

Instructions: _____

Name: _____

Ingredients: _____

Instructions: _____

Name: _____

Ingredients: _____

Instructions: _____

End of Chapter Reflection Questions

- Which recipes might you want to try? Do you have any favorite foods you could learn to make on a camping trip?
- How does cooking in camp compare to cooking at home?
- Do you like to try new things, or prefer to stick with your favorites? Ask the other scouts in your patrol how they feel about it. How might that affect menu planning for your next outing?



15

USING TOOLS

Scouts are builders. If you are cold, you build a fire. If you are wet, you build a shelter. In order to be useful and help others, scouts should acquire practical experience in the use of hand tools for building. In scouting, this typically means tools for working with wood, or *woods tools*. Understanding how to safely and properly use, care for, and store your woods tools is a valuable contribution to your troop, your community, and the environment.

Woods Tools Proficiency

To use woods tools during scouting, there are skills you will need to demonstrate to show that you understand the risks, and that you can use the tools safely. Scouting should be fun, and it's not fun when you get cut by any of the tools that were supposed to cut the wood instead! So, get proficient with woods tools, and then have fun using them safely and efficiently. It makes for a much richer scouting experience.

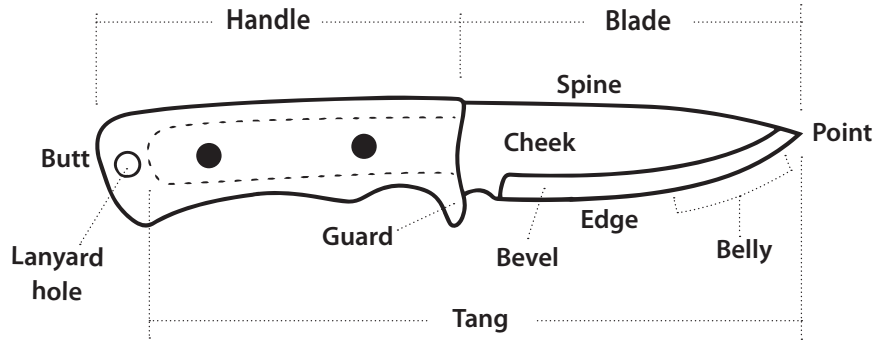
Parts of a Knife, Axe, and Saw

Knowing what to call things is an important part of mastery. You'll notice that these tools have some common terms, and some that are unique to each.

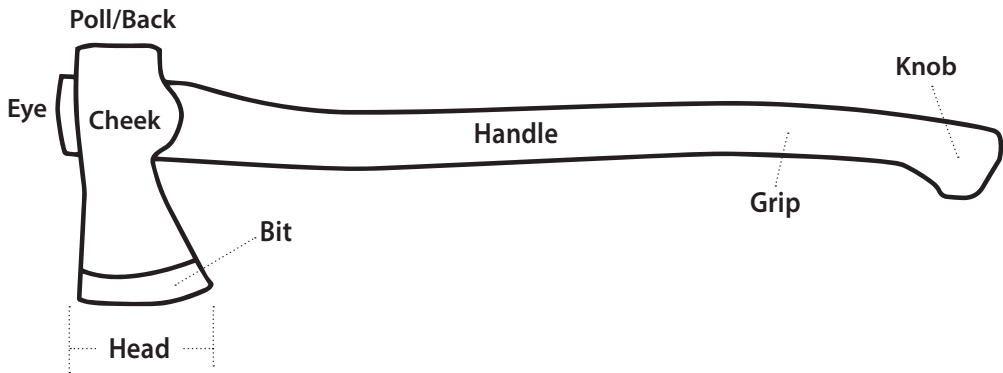


Parts of a Knife, Axe, and Saw

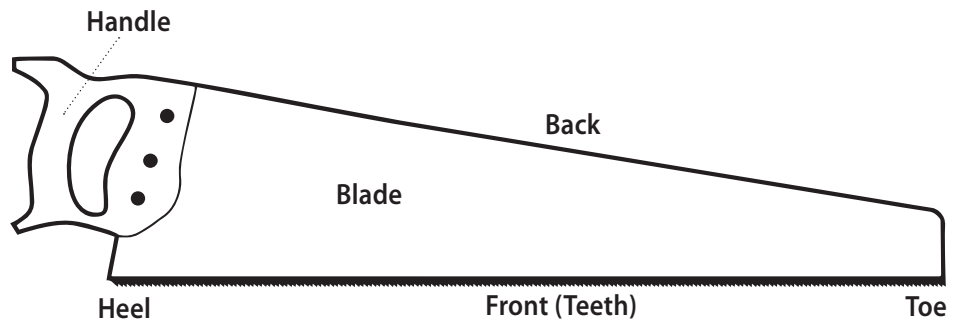
Knife



Axe



Saw





SHARP

Remember the acronym **SHARP** for good woods tools handling: SAFE • HANDLING • AWARE • RESPONSIBLE • PURPOSE.

SAFE

- Clear a work area appropriate for the size and nature of your tool and work area.
- Establish a blood circle around your work area.
- Eliminate and/or monitor background hazards.
- Wear proper protective gear.

HANDLING

- Keep fingers out of blade/cutting area.
- Pass knives by holding the blade and presenting the handle when open/unsheathed. Closed or sheathed is best.
- Sheath/close knives before standing.
- Carry tools in a safe manner.

AWARE

- Examine tools before use.
- Clean tools after use.
- Sharpen edges and teeth when needed.
- Store properly in sheath or case.
- Dress axe face for protection/safety.

RESPONSIBLE

- Only use sharp tools at appropriate times and places.
- Get permission.
- Never damage a tree.
- Only carve what is yours.

PURPOSE

- Know your goal.
- Have a reason to use knives and tools: they are not toys.

Knife

Batoning Wood

Batoning is a safer and more controlled method of splitting wood, when compared to traditional use of a hatchet or axe. A good knife is also a lot lighter and more easily brought into the backcountry than an axe or hatchet for people watching their pack weights.

To baton wood into kindling, you'll need a fixed-blade, full-tang knife, meaning a knife where the blade doesn't move (not a pocketknife), and the metal used to make the blade extends all the way through the handle. This is the strongest type of blade and should make sure your blade doesn't break off from the handle when batoning! You'll also need to find a sturdy, thick piece of wood you can hold in your hand—this is your *baton*.

To break a thick piece of wood into kindling, stand the piece on its end on a stable surface such as the ground or a very flat rock. While holding your knife, position it across the center of the wood with the sharp edge resting on the surface of the wood, as if you were going to cut into it like a stick of butter. Make sure your knife is directionally aligned with the grain of the wood; not across it and avoid

any knots. Then, while holding the knife in position, raise your baton and bring it down smartly on the top of the knife blade. Essentially, you're using the knife as a wedge to force the wood apart between the grain layers, and the baton is the force pushing the wedge in to do its work.

Depending on the wood you're breaking up, once you get your knife a good way in you may be able to simply break it apart with your hands. If not, you can force the blade in further by hitting the handle of the knife with your baton.

Repeat until your kindling is as small as you want and until you have as much as you need.

Why baton? If you're trying to start a campfire with wet wood, one way to improve your chances is to split larger pieces into smaller, as the inside of the wood will be dry and catch fire more easily. When talking about wilderness survival, one is unlikely to have a relatively heavy hatchet or axe in their pack "just in case." Having a knife capable of batoning (and knowing how to do it, which is a good reason to practice often) opens up more possibilities and improves the chance of success when making a fire in an emergency. For this reason, consider a survival knife; the type of knife you might use for regular camp chores, but somewhat overbuilt and tough enough to take the abuse that might be needed if you find yourself in a true survival situation: this includes being able to stand up to batoning.

Axe

Safe Tool

Due to its size and the way in which it is used, an axe can be more dangerous than other woods tools. Remove the sheath only when you are prepared to use your axe correctly. Give it your full attention.

An axe must be sharp and in top condition. If the head is loose, soak the axe for a few hours in a stream or a bucket of linseed oil. The wood in the head will swell, and the handle will be tight for a while.

Safe Shoes

Always wear sturdy leather boots when chopping with an axe. Leather won't stop a blade from hitting your foot, but good boots can limit the extent of an injury.

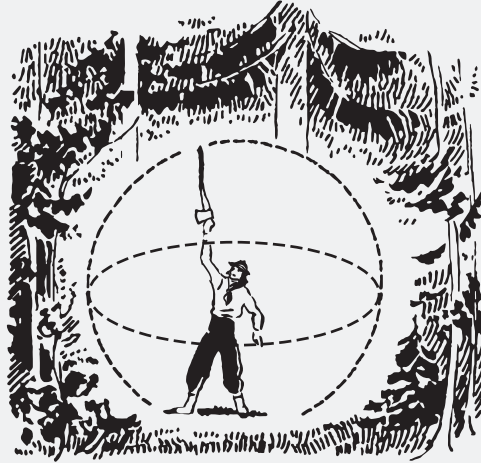
Safe Working Area

You must have plenty of room in which to swing an axe. Check your clearance by gently holding your axe by the head. Slowly swing the handle at arm's length all



A Blood Circle

A **blood circle** isn't a rehearsal for a horror-themed campfire skit—it's a safety circle to help avoid cutting others while working with sharp tools. Think of an area with you at the center. Now, imagine a circle around you by holding out your arm fully extended and holding the tool you're using—for example, a pocketknife or axe—by the cutting edge, NEVER the handle. The distance from you to the tip of the tool handle is your blood circle. Nobody should be allowed in the circle while you're working. If someone does enter the circle, stop working immediately until they leave.



around you and over your head. Remove any brush or branches that the handle touches. While you are cutting, be certain other people stay at least 10 feet away.

In a busy camp, establish a woods tools area or axe yard. Rope off an area large enough to provide the clearance you need to work and with a good chopping block. Enter the yard only to chop and saw wood. Allow just one person at a time in the axe yard. Clean up the chips, bark, and other debris.

Safe Technique

Chopping branches off a downed log is called *limbing*.

- Stand on the side of the log opposite a branch, in a position where you can chop where the branch meets the trunk and your swing can “follow through” without heading toward any part of your body. Chop close to the base of the branch, driving the axe into the underside of the limb.
- Keep the log between you and your cuts. If the axe misses a branch, the blade will hit the log rather than your leg.

Bucking a log means cutting through it.

- Stand beside the log with your feet shoulder-width apart.
- Hold the axe just above your shoulder with one hand near the head and the other at a comfortable position closer to the bottom of the handle. As you

swing the axe in an arc toward the wood, slide your upper hand toward the lower as you swing the bit into the log.

- Let the falling weight of the axe do most of the work.
- Slide your hand back down the handle to the head. Lift it and swing again.
- Aim your strokes so that you cut a V shaped notch twice as wide at the top as the log is thick. Learn to switch-hit with your axe.
- As you cut on the right side of a notch let your right hand slide on the axe handle. Switch your grip and slide your left hand up the handle as you work from the left side of a notch.
- Develop a relaxing easy rhythm, switching hands after each blow.

Cutting small sticks and splitting large chunks of wood is known as *rounds*. It is best done on a chopping block, a piece of log that has been sawed and turned upright to provide a flat surface. It should be about 2 feet high, so you won't have to lean down much as you work.

A chopping block is important for safety too. If you swing your axe badly, the bit will probably hit the block instead of flying on toward your feet.

To split a large round of wood, stand it upright on a chopping block.

1. Swing the axe as you would to buck a log, driving the bit into the end of the round.
2. If the wood doesn't split, remove the axe before swinging it again.
3. Do not swing an axe with a piece of wood wedged on the bit.

Safe Carrying

Place a sheath over an axe blade whenever it is not in use. Carry an axe at your side with one hand, and the blade turned out from your body. If you stumble, toss the axe away from you as you fall. Never carry an axe over your shoulder.

Safe Storage

Sheathe your axe and store it under the dining fly or in a tent. On the trail, a sheathed axe can be tied or strapped to the outside of your pack.

Safe Handling

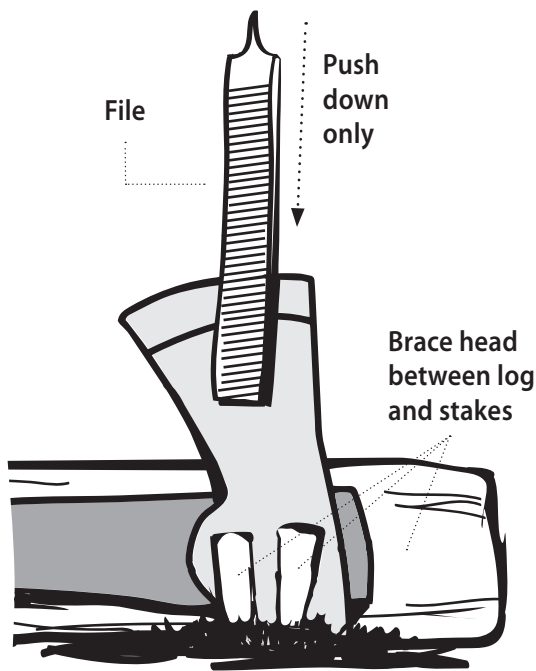
To pass an axe to another person, hold the handle near the knob with the head down. Pass the axe with the bit facing out at right angles between you and the other person. When your partner has a grip on the handle, they should say, "Thank you." That's your signal to release your hold.



Sharpening an Axe

Keep your axe sharp with a mill bastard file 8 or 10 inches long. The lines across the face of the file are the teeth. They angle away from the point, or tang. A sharp file will be a drab gray color. A silvery shine means a file has broken teeth that won't sharpen very well.

Whenever you sharpen with a file, wear leather gloves to protect your hands.



Brace the axe head on the ground between a small log and two wooden pegs or tent stakes. Another scout can help hold the axe handle steady. Place the file on the edge of the blade and push it into the bit. Use enough pressure so that you feel the file cutting the axe metal.

Lift the file as you draw it back for another stroke. A file sharpens only when you push it away from the tang. Dragging the file across the blade on the return will break off the teeth and ruin the file.

Sharpen with firm, even strokes. After you have filed one side of the bit from heel to toe, turn the axe around and do the other side. Under bright light, a sharp edge reflects light. Continue to file until the edge seems to disappear. Filing can leave a tiny curl of metal called a burr on the edge of the bit. Remove the burr by honing the bit with a whetstone just as you would with the blade of a pocketknife.



Sawbuck

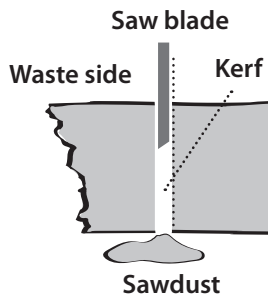
A sawbuck is a special sawhorse for cutting wood. A sawbuck has large x-shaped ends so that wood or lumber can firmly rest in the upper part of the "X." This is especially useful for rounded wood.



Saw

Preparing

Make sure the wood you are cutting is firmly held in place. Brace the wood against some solid support or, better yet, use a sawbuck. If the wood must be held in place by hand, make sure your hand is as far away from the cutting point as possible. Other ways to keep the wood in place are a clamp or lashing.



A *kerf* is a notch made by a cutting tool; it is the groove left by a saw. When sawing, make sure the kerf is on the waste side of the wood, which is the part of the wood you don't plan on using.

- Use eye and hand protection as suits the situation.
- Set the wood in the sawbuck so that the weight of the discarded piece naturally opens the cut, rather than the cut closing on the blade.

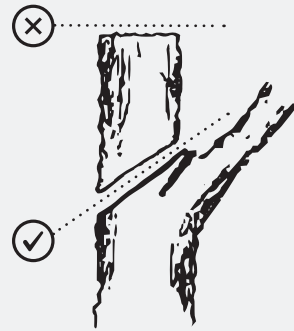
Using a Saw

Read these tips before using the saw: it will help you achieve a better result.

1. Start by lightly pulling the blade toward you until it cuts into the wood. This does two things: it sets a groove for the blade and lets you know on which stroke your saw cuts. Does the saw cut on the push or pull stroke, or both?
2. Use smooth, long strokes that let the weight of the saw do the cutting. Push and pull in a steady rhythm using as much of the saw blade as you can. Many of the saws you'll use cut in one direction, so be aware of what type of saw you have so that you can put energy into the correct cutting stroke.
3. Avoid forcing the saw as that could lead to buckling the saw blade or damage the cutting edge of the teeth.

Pruning Properly

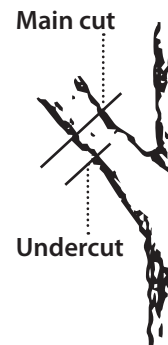
Hat-racking is cutting a branch away from a bud or new leader, leaving the old branch cut off as a stub. Branch cuts need to be made at a point of current growth so the plant will grow over the injury. Creating a stub leaves the tree susceptible to further injury, infection, or decay.



4. Keep the saw straight and level when cutting; avoid rocking the saw.
5. When done, cover the teeth of the saw with a sheath, or place the saw in a safe location.

If you need to cut a branch off a living tree, use an *undercut*.

When first starting to work, begin by making a cut on the underside of the branch. Make the cut just a tad closer to the tree trunk than where you plan to cut from above. The undercut should be about halfway through the branch. Then, cut from the top of the branch just a little further out. The weight of the branch will make it break where you cut underneath, preventing the branch from pulling itself all the way off and stripping off trunk bark with it; it makes a clean cut and keeps the tree healthy.



Make sure to leave at least one inch of branch on the trunk when cutting. Avoid making *hat racks* out of branch cuts, and don't leave hazardous stumps.

Woods Tools Proficiency Card Requirements

Upon satisfactory completion of these requirements in the presence of a leader, a scout may be issued a Woods Tools Proficiency Card showing that they are permitted to carry and use woods tools during scouting activities.

If you fail to live up to these requirements, your scoutmaster may choose to revoke your Woods Tools Proficiency Card.

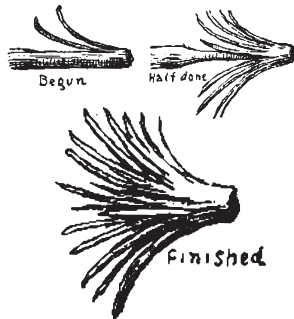


WOODS TOOLS PROFICIENCY CARD

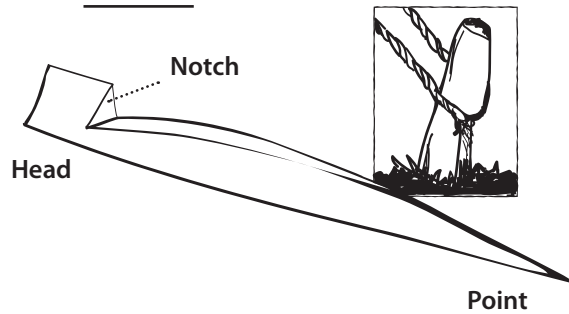


	COMPLETED EXAMINER & DATE
1 Explain what each tool is used for. Identify the parts of your knife, axe, and saw. Name each part and know the importance of each piece of each tool.	<input style="width: 100%; height: 40px;" type="text"/>
2 Explain what the acronym SHARP stands for.	<input style="width: 100%; height: 40px;" type="text"/>
3 Show how to prepare your work area for use of woods tools. Demonstrate how to do the following: <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> <input type="checkbox"/> a Inspect tools. </div> <div style="width: 45%;"> <input type="checkbox"/> d Set up an axe yard. </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> <input type="checkbox"/> b Use any required safety gear. </div> <div style="width: 45%;"> <input type="checkbox"/> e Look for nearby hazards. </div> </div> <div style="margin-top: 10px;"> <input type="checkbox"/> c Check your radius. </div>	<input style="width: 100%; height: 40px;" type="text"/>
4 Demonstrate proper care and storage of woods tools. Explain how to safely store tools when not in use at camp and at home.	<input style="width: 100%; height: 40px;" type="text"/>
5 Demonstrate safe use of a knife, axe, and saw while performing the following: <div style="margin-top: 10px;"> <input type="checkbox"/> a Split firewood with an axe or hatchet. </div> <div style="margin-top: 10px;"> <input type="checkbox"/> b Baton kindling with a suitable fixed blade knife. </div> <div style="margin-top: 10px;"> <input type="checkbox"/> c Craft a feather stick with your knife. (See opposite page.) </div> <div style="margin-top: 10px;"> <input type="checkbox"/> d Craft a tent stake using appropriate woods tools. (See opposite page.) </div> <div style="margin-top: 10px;"> <input type="checkbox"/> e Saw a log (4 inch diameter minimum). </div>	<input style="width: 100%; height: 40px;" type="text"/>
6 Show how to sharpen a knife and axe. Explain the importance of good blade maintenance.	<input style="width: 100%; height: 40px;" type="text"/>
7 Show safe carrying methods of woods tools. Demonstrate safe carrying and safe handoff of tools from one person to another.	<input style="width: 100%; height: 40px;" type="text"/>
8 Explain your duties as a guardian of the woods or backcountry. <div style="margin-top: 10px;"> <input type="checkbox"/> a Show an understanding of what it means to be a good steward of nature and guardian of the woods. </div> <div style="margin-top: 10px;"> <input type="checkbox"/> b Explain what to do before you take wood from nature and when it is appropriate to do so. </div>	<input style="width: 100%; height: 40px;" type="text"/>

Feather Stick



Tent Stake



Felling and Logging a Tree



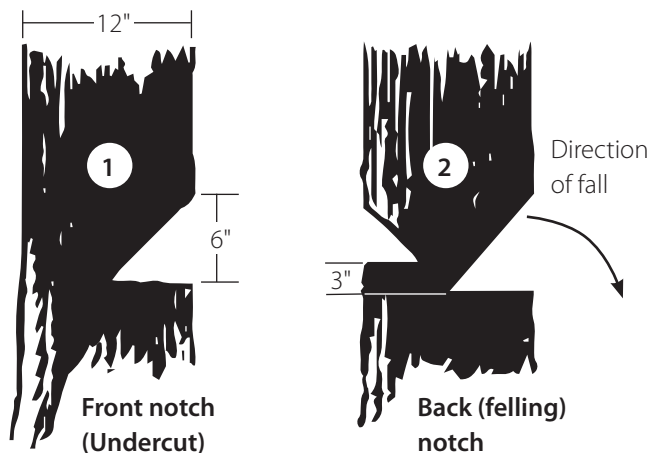
Tree Felling

When you want to fell a tree for a useful purpose, get permission first.

Before starting to fell your tree, first clear away all branches that might interfere with the swing of your axe and therefore spoil your aim. Also clear away any brambles or undergrowth that might trip you at the critical moment. Make sure that onlookers are well away from you.

The way to fell a tree is first to cut a big chunk out on the side to which you want the tree to fall, and then to cut into the opposite side to fell it. Plan your work so that the tree will fall clear of other trees and not get hung up in their branches.

Begin your first notch by chopping two marks, the upper one at a distance above the other equal to half the thickness of the tree. Then cut alternately, first a horizontal cut at the lower mark, then a sideways, downward cut at the upper one, and jerk out the chunk between the two. Go on doing this till you get to the center of the tree.



Now go to the opposite side of the tree and cut another notch here, only about three inches above the level of the lower mark of the first kerf.

Cut out chunks when you are at it—not a lot of little chips, which are signs to anyone coming there later that a tenderfoot has been at work. It is all a matter of aiming your stroke well.

Then, when your tree falls, look out for the butt. This often jumps back from the stump. Never stand directly behind it—many a tenderfoot has been killed that way. When the stem cracks and the tree begins to topple over, move forward in the direction of the fall, and at the same time onwards, away from the butt.

Trimming and Logging

When the tree is down, it must be trimmed, that is, the boughs and branches must be cut off, leaving a clean trunk. This is done by working from the butt end of the trunk towards the top. Cut off each bough from below, as close to the trunk as possible.

The trunk is then cut into lengths. This is called *logging*. Cut from one side towards the middle, making the kerf half as wide as the tree is thick. Then turn the tree over and make a similar kerf from the other side, until the logs come apart.

Tools and Building

Imagine yourself standing in the footprints of your area's previous inhabitants. With the tools then at their disposal, they were able to create homes, villages, businesses, and cities. Their tools aren't that different from those we use as scouts. All early Americans had the two primary tools in their toolboxes that every scout has: thrift and ingenuity.

The tools a scout should know how to use effectively and efficiently can be compiled in three categories: striking, cutting, and turning.

Striking

The simplest striking tool is a hatchet. Hatchets were first made by humans in

prehistoric times from pieces of wood or bone joined together with animal sinew.

Later the striking face became stone, then brass, then bronze, then iron, then steel. Nowadays, a high carbon steel hatchet with an edge of titanium carbide can be purchased at a big box store for the cost of a few cheeseburgers. From the hatchet evolved the axe and maul, which are slightly bigger versions of the hatchet, created for more specialized tasks. They are also less portable. Settlers on the Oregon Trail would only bring the metal parts of their tools, fashioning wooden handles along the way to save space and weight.

The most common striking tool is the hammer. Hammers come in all shapes, weights, sizes, and purposes which are directly suited to their design.

Hammer Time

An old saying goes “If all you have is a hammer, every problem looks like a nail.” But there are many different types of hammers.

- A **claw** hammer for nails.
- A **ball peen** hammer for shaping metal.
- A **mattock** for working earth.
- A **sledgehammer** for heavy work.
- A **jack** hammer for concrete or rock.
- An **engineer’s** hammer for train work.
- A **rock** hammer for breaking out of prison.
- A **dead blow mallet** for coercing parts together.
- A **mason’s** hammer for brick and stone.
- A **blacksmith’s** hammer for shaping metal.
- A **bushing** hammer for tenderizing meat.
- A **shingle** hammer for, well, shingling.
- A **farrier’s** hammer for horseshoes.

No matter what kind you choose, take good care of it.

Use of striking tools is relatively straightforward. Strike what you want to hit with the face of the hammer you want to hit it with. Repeat as needed. Watch your fingers and toes and those of others nearby. That said, body positioning while using tools is very important.

Fatigue can be dangerous when working with tools, so pay attention and take breaks.

Cutting

Hopefully, all of you, by now, have earned your Woods Tools Proficiency Card. The first cutting tool you’ll need to master is the knife. There’s a safety concern with any version of knives: there is no such thing as an unsafe tool, only unsafe operators.



An operator must think before using the tool.

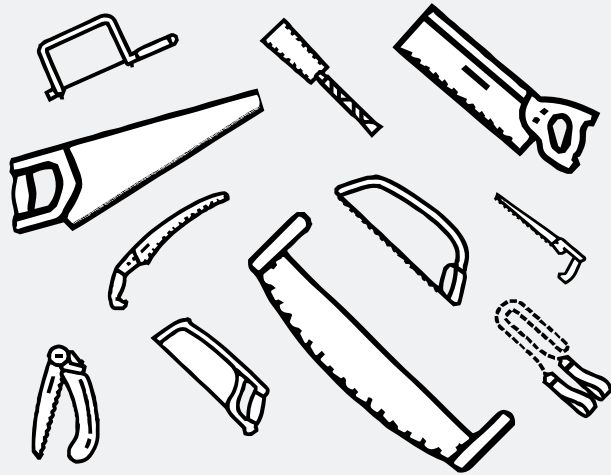
- What are the consequences or potential outcomes of this type of action?
- What will I hit if this blade slips?
- Are the people and property around me being protected?

Use your cutting tools to cut only what you mean to cut. Keep your tools sharp, lubricated, and out of unqualified hands. Most scouts prefer a fixed blade knife for bush craft work, and a retractable razor knife for other building tasks. While the versatility of a Swiss-Army-style knife cannot be beat, each function of the tool pales in comparison to a dedicated tool for only that purpose.



Saws All

There are many types of saws, and they can be as specialized as hammers. Some saws are for ripping or cutting parallel to the grain of the wood. Others are for crosscutting perpendicular to the grain. There are also saws to cut thin metal, thick metal, concrete, tile, glass, or anything you can cut.



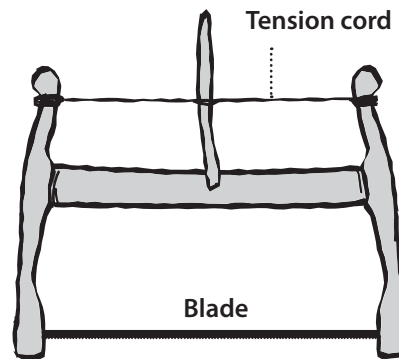
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Use your whole body as a unit when you are sawing:

- Poise yourself safely at a sawbuck or table.
- Spread your feet hip or shoulder distance apart. Feet should be firmly on the ground with no obstructions or hazards. Stout footwear is imperative.
- Start the cut with slow deliberate strokes then with arm, shoulder, and back muscles engaged rock with momentum through the body of the cut finishing with short deliberate strokes.

In addition, every scout should take on the making of a wooden-handled bow saw. It's a good first tool to make and helps foster a connection to your tools, plus a realization of the thrifty scout motto, "Make, make do, or do without." The process is quite simple.

- Three sticks or planks are joined together to form an H shape.
- Across the bottom of the H, mount the blade.
- Across the top of the H a string, sinew, or paracord, with a fourth stick for tensioning.



Other cutting tools include chisels and planes. Basically, these are sharpened or flattened metal objects that have a handle. One can make all manners of tools with only small pieces of metal and wood: there is enough good steel in the springs of a pick-up truck to make all the tools needed by your whole troop.

Focused Energy

You might try a *nokogiri* saw. These Japanese saws cut on the pulling stroke as opposed to the European-style saws that cut on the pushing stroke. Often smaller bodied people, like young ankle-biting, whippersnapper Pathfinders, prefer them, as they give better results without as much effort or strength required. In Japan, they say the focus of the energy of these saws is directed back toward the maker rather than away from the maker. In this way, sawing forms a connection between object and maker. This inward path is why we scout. Along with your wits, one must have this inward path.



Turning

There are countless tools available for turning. Mostly, they provide additional leverage to what could be applied solely by hand.

- **Screwdrivers** come in numerous shapes and heads. Try to use the appropriate one. And remember: a screwdriver is not a pry bar.
- **Wrenches** can be metric or SAE sizes (Society of Automotive Engineers measures in inches and fractions). Adjustable wrenches are great but should be used sparingly to avoid messing up the corners of nuts and bolts.
- **Pliers** are slip-jointed grasping and turning devices which can be as specialized or as multipurpose as the user desires. For example, lineman's pliers have long, fine points that are good for grasping and bending electrical wires in small spaces—the job of a person working on electrical wires.

Combination pliers, on the other hand, have blunt-ended jaws with both flat surfaces and serrated surfaces, great for gripping. These are the pliers you're most likely to find in your home tool kit. An average electrician would likely bubble over with electrons if you grabbed their linesman's pliers for twisting on a nut!

All these tools are an investment and can be costly to purchase or replace. However, used tools are available at low enough cost to satisfy even the thriftiest scout. That said, a tool that isn't up to the job ends up costing more money. In general, buy the best quality tool you can afford and take good care of them, as they will be with you for the rest of your life.

There are also loads of very specialized tools, most of which will not be at your disposal in the wilderness. You might love a pin scribing gauge, or a bullnose shoulder plane like a Stanley 192, a squangle, a left-handed board stretcher, or a sliding T bevel. However, if you don't have the *best* tool for the job, you'll have to either make that tool, improvise a solution, or do without.

Your ingenuity will lead you far, Pathfinder.

Building

So, what are *you* going to build?

Close your eyes for a moment and see the thing you want to construct. Imagine the corners, the connections of the joinery, the color of the materials, the way the light and shadows play, and the measurement of the intersecting pieces. Spin this object in your mind's eye. Hopefully, that idea of visualization will help guide you far, because it carries true for Pathfinding as well as building.

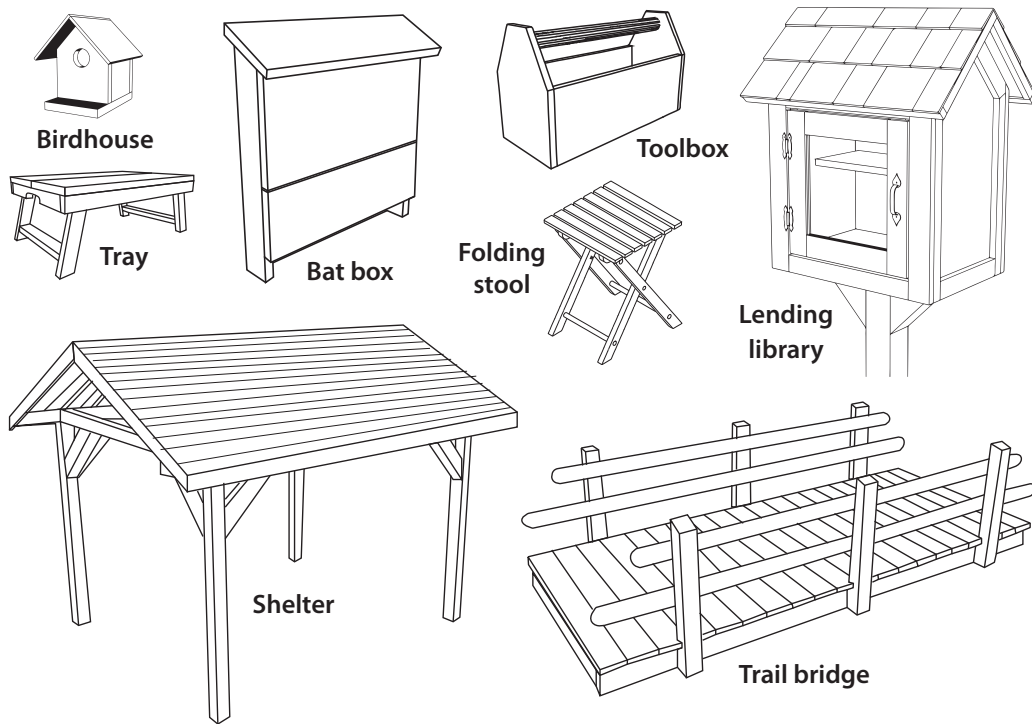
The next issue is designing your construction to be strong enough to do the task without overbuilding, which would cause you to use significantly more material than needed. These materials are natural resources of which some are renewable, and some are not. Even if they are renewable, we should watch how they are



Imagine It!

Johannes Hoggenhout, a cabinet maker from New Zealand said, "If you cannot draw it, you cannot build it." If your drawing skills need work, then you might substitute, "if you cannot visualize it, you cannot build it."

used. These materials are precious. Some basic engineering is needed. The simplest concepts are often the hardest to grasp. First is load. Dead load is the weight of the components of the object together. Live load is the weight of the occupants, their stuff, and their visitors' stuff. Your projects must hold both.



If you are going to build something, do it well and make it last. If you must do it twice to do it right, then do it twice. You'll learn from your mistakes and become a very competent builder. Remember every craftsman, builder, architect, engineer, home hobbyist, and master of a trade began exactly where you are: with little knowledge and lots of will. Use your skills of wit, ingenuity, and perseverance. A career can be found in the act of making things. Many tradespeople began tinkering in their trade as scouts, and still find their scout skills useful in their careers.

A few items you might want to build:

- Lending libraries, birdhouses, bat houses, mason beehives, or dog houses could serve as fundraisers, gifts, and/or environmental service projects.
- Playground equipment, permanent camp gadgets, lean-tos, stages, or outdoor pavilions to serve your community for a long time to come.
- Furniture, cabinetry, cookware, and functional home goods can be very satisfying to build and provide life-long use.

Or you may find that building art from found or repurposed objects or interests you, allowing you to spread the message of thrift and beautify your surroundings.

End of Chapter Reflection Questions

- How might your patrol decide what woods tools to bring on an outing?
- What's satisfying about being able to design and build something you want?
- Why do you think working with tools is part of scouting?



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MEASUREMENTS AND MAP MAKING

Even in an age of GPS and onboard navigation systems, reading and making maps are useful and important skills for anybody to know. To begin our journey in map reading let's ask and answer two questions. First, what is a map? Second, what is north? Knowing the answers to these questions will start you on your orienteering journey.

Simply put, a map is a two-dimensional drawing of an area of land or sea. Using color, lines, symbols, and scale we can create maps of nearly any surface, even if the surface is below water! Using a map will help your troop find their way from the start of a journey all the way to the finish.

Next, we'll answer the question, what is north? You know that the Earth is roughly spherical and that it rotates around its axis. The points on the earth where this axis of rotation meets the surface are called the 'poles.' We call these poles the North Pole and the South Pole. There is no East or West Pole.

When you first begin using a map, will lay it out so the features on the map are oriented to match the layout of the terrain. You can speed this process by pointing the north edge of the map towards the North Pole. But how can you tell which edge of the map is north?

If you're using a map printed by the United States Geological Survey (USGS) or a commercially available map, north will be indicated by an arrow labeled "north" pointing towards the North Pole, even if the North Pole isn't on the map.

That's helpful, but how do you know which way is north in real life? By using a compass.

A compass is a tool that contains a freely rotating magnetized needle mounted on a pivot to locate north. With the compass laid flat, the needle turns and orients itself along Earth's magnetic field. One-half of the needle is marked "north," while the other half may be marked "south." Once you know which way north is, you can turn your map so north on the map matches the direction the needle is pointing.

If you have a compass, try taking it out and laying it flat in front of you. Turn your body so you are facing the direction the needle indicates is north. Once you are facing north, directly behind you is south. If you look directly to your right (turn only your head) you're facing east. If you turn your head to your left, you're facing west.



Cardinal, Secondary, and Tertiary Compass Directions

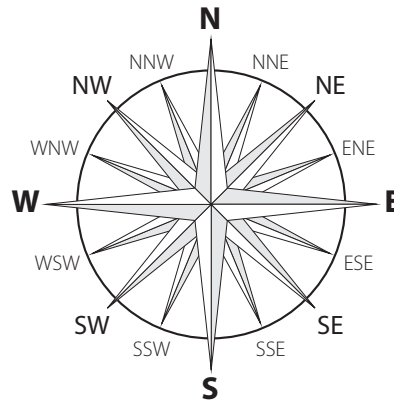
North, east, south, and west are the four cardinal directions and are absolute. They are always the same no matter which way you face. North is *always* towards the North Pole. The sun always rises generally to the east and sets generally in the west. By using these cardinal directions, you can begin helping lost people find their way, and find your own way when you are lost.

There is a second set of directions in between north, east, south, and west. These are the secondary directions, exactly halfway between each cardinal direction and thus are sometimes called the *intercardinal* directions. They are named northeast, southeast, southwest, and northwest. Their names combine two of the adjacent cardinal directions, so you can never go northsouth or eastwest. These subdivisions give us more options when giving directions.

Finally, there is a third set of subdivisions, called the tertiary directions, that fall halfway between the cardinal and secondary directions. These are helpful for giving the direction of the wind. These are headed by the general direction, with the secondary tacked on to the end. The directions here are: north by northeast, east by northeast, east by southeast, south by southeast, south by southwest, west by

southwest, west by northwest and finally north by northwest. These are usually written using just capital letters, for example ENE for “east by northeast.”

This is usually the furthest anyone goes, when dividing the compass into named directions. It’s possible to further subdivide the compass, but it becomes impractical very fast! Navigators instead use numbers to give precise directions.



Using numerical headings, it is possible (and easier) to give very specific directions and measure angles. A compass dial, being a circle, is divided into 360 degrees. 0 degrees is north, 90 degrees is east, 180 degrees is south, and 270 degrees is west. This list notes the degree heading for each named direction:

DIRECTION	DEGREES	DIRECTION	DEGREES
NORTH	0	SOUTH	180
NNE	22.5	SSW	202.5
NE	45	SW	225
ENE	67.5	WSW	247.5
EAST	90	WEST	270
ESE	112.5	WNW	292.5
SE	135	NW	315
SSE	157.5	NNW	337.5

Your Compass

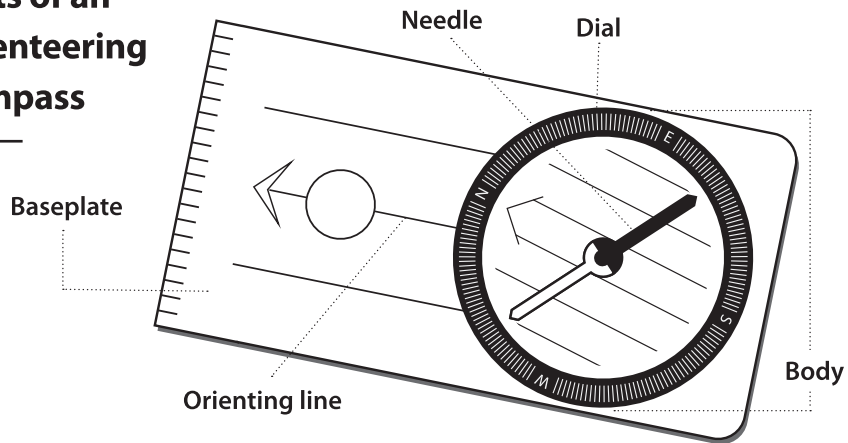
The basic orienteering compass has five main parts: The body, the dial, the needle, the baseplate, and the orienting line.

The body contains the works of the compass and keeps everything in place. The dial is where the needle is enclosed and mounted on a pivot, with a degree scale printed around the perimeter. Often the cardinal directions are indicated here as



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Parts of an Orienteering Compass



well. The needle is a magnetized bit of steel that points to the north. The baseplate is the flat bottom of the compass. The orienting line is a line printed on the baseplate from the center of the pivot to the edge. You'll use this line to “orient” the map to the real world by making it overlap the line on your map pointing toward north, then turning the map and compass together until the compass is pointing to north.

There are many manufacturers of compasses and there are many differences between models, but these are common features. Remember to keep strong magnets away from your compass, as they can ruin it.



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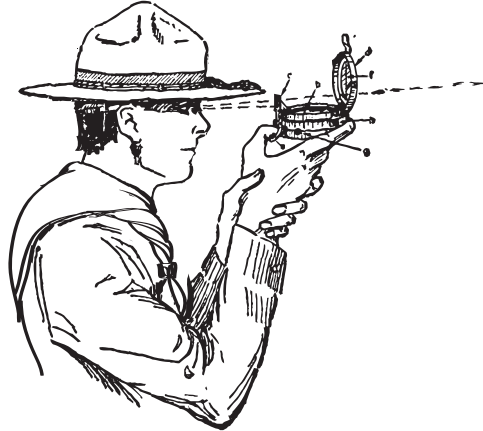
Taking a Bearing

To take a reading from your compass, begin by holding it in front of you as flat and as still as you can. Relax: if you stand rigid, your muscles will twitch which can make it difficult to accurately read the heading. Point the orienting line away from your body and do your best to line it up with a stationary object in the distance. With as little movement as possible, look down at the needle and see what number on the dial the needle is pointing to. This is a *magnetic azimuth*, which is a fancy name for the difference, measured in degrees, between what you're looking at and a fixed point: magnetic north.

A more accurate reading is to hold the compass up to your eye, so you can line up the distant object with the orienting line. Many compasses make this easier by including some sort of aiming device (like a wire mounted in the cover, or a blade sight with a small notch) in it. Once you have lined up the orienting line with the object, glance down at the needle to see which number it's pointing to.

NOTE: It is very important to keep your surroundings in mind while taking

magnetic readings from your compass. The presence of iron-based metals like steel, wrought iron or machinery can draw the needle towards them, since they are magnetic. The same goes for strong electro-magnetic fields produced by appliances, power lines, electric motors and generators, or lightning.



So, when taking a magnetic reading, stay away from things that produce an electro-magnetic field and anything containing iron. Stay away from cars, trucks, tools, firearms, and playground equipment. Avoid power lines, electrical substations and running generators. Test this out! Try taking a north bearing while standing next to a car and you'll see the needle being pulled towards the car. Walk away and you'll see it swing back.

Many Norths

Actually, in a way, there *is* more than one north. Don't worry, they are all well-defined and can be learned with some study. Let's take a moment to quickly go over them:

- **True north:** the shortest line between you and the North Pole. True north is a fixed point on the globe.
- **Map north:** the direction you must turn your map so it will match the terrain in front of you. It will be clearly marked on any government or commercially printed map.
- **Grid north:** Since we measure east/west distances in degrees from Greenwich, England, the lines of longitude are nearly parallel at the equator and noticeably come together to a single point at the North Pole. Because of this, lines of longitude may not always be equally spaced on a printed map.
- **Celestial north:** Can be found by locating the star Polaris in the night sky. The northern end of Earth's rotational axis points almost directly at a star that's somewhere between 323 to 433 light years away!
- **Magnetic north:** The direction a compass needle points to as it aligns with the Earth's magnetic field.

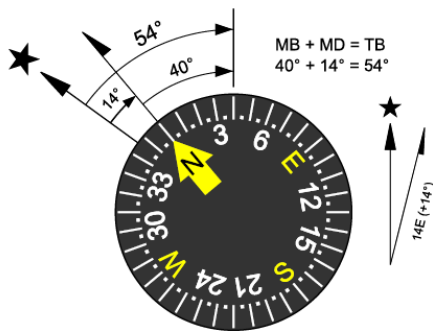


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The Earth's Magnetic Field

Did you notice how the reading you took was called a magnetic azimuth? That is important because a magnetic compass does not always point at the Earth's true North Pole. The Earth generates an enormous but weak magnetic field, due to the rotation of its molten core. The pole of this giant magnet is about 5 degrees off the true North Pole (as of 2021) and is centered somewhere in the Arctic Ocean. This pole wanders very slowly over the surface of the Earth, and it moves roughly one third of a degree every year.

This difference between true north and magnetic north is important. It's called *magnetic declination*. This difference can be from zero to 30 degrees and depends on where you are standing on the Earth. This information will be printed on your map where you can find it in the legend or on the compass rose. Magnetic declination becomes very important when you are translating between map north and magnetic north. Making this translation can be made easier by remembering Left Add, Right Subtract or LARS. Let's take a look at an example:



True north is marked with a star at the end of the leftmost arrow. The drawing shows there are 14 degrees of eastern declination. Let's imagine we take a magnetic azimuth to an object and get a reading of 54 degrees. From the legend we can see magnetic north is 14 degrees to the right (east) of map north.

So, using LARS, we must SUBTRACT 14 degrees from our reading of 54 to get the proper azimuth on the map. When measuring azimuths on our map we would use a 360 degree protractor with the 0 line pointed to map north. If we know where we are on the map, we know that the object could be found on the map using a bearing of 40 degrees.

Now let's imagine we are looking at our paper map and using a protractor to get an azimuth to a tower far away that we can't see. Maybe we want to travel across country directly to the tower, but we can't get a field bearing because we can't see it.

Using the map, the angle we get is 40 degrees. But, because the map is oriented to true north, we need to translate it to magnetic north so we can use our compass. To translate this map reading to a magnetic azimuth we must ADD 14 degrees because we are going to the left from the magnetic declination line to the map north line. From this we'll get a magnetic azimuth of 54 degrees. We could then

walk to the tower by taking a bearing, noting an object that's on the 54 degree line, walking to the object, and taking another bearing. We keep doing this until we can see the tower.

In this example, what if magnetic declination were 14 degrees west instead of east? Then you would reverse them—in our first example you'd have ADDED 14 degrees and in the second you'd have SUBTRACTED 14 degrees.

14 degrees may not seem like much but let's put it into perspective. If the tower from the example is 1 mile away and you start walking towards it but follow only your initial compass reading without adjusting for declination, you'll end up almost a quarter mile away to the east of your destination. If you were to travel 4 miles over land, with low visibility, or over sea with no landmarks and followed only your compass reading, you'd be 1 mile away to the east of your intended destination! Don't let this detail overwhelm or slip by you. It can be accounted for with a little information and easy arithmetic. Some compasses are equipped so you may dial in magnetic declination to make adjustments easier, but you must be sure it is set correctly before you head out.

Organized Orienteering

Organized orienteering is navigating with a detailed map and a compass, as a sport. It puts your compass and map-reading skills to use, it gets you outside, and it's a lot of fun!

When beginning an organized orienteering course or event, the map will have the start identified with a triangle, and a double circle will indicate the finish. There will be several checkpoints for you to find using this detailed map, and orienteering events often have an additional key with symbols that indicate landmark features that will help you find the checkpoints.

These symbols are used internationally so, once learned, you can go do an organized orienteering course anywhere in the world and find the same landmark clues on your guide. If you're interested in learning about the symbols and orienteering in more detail, check out if there's an orienteering club in your local community, or refer to the handy dandy internet.

Mary S Young 2021					
Long	79 points				
▷					
31	↗	⊗		⊙	1
32	/			┌	1
33	/	/	Y		1
34	↗			┌	1
35		⊗		⊙	1
36	↓	⊗		⊙	2
37		⊗		⊙	2
38	X			⊙	2
39	∩				3
40	/	/	Y	⊙	3
41	■			⊙	3
42		⊗		⊙	3
43	↗	↗	Y	⊙	3
44	↗			⊙	3
45	└				3
46	/			┌	3
47	/		<	⊙	4
48	/		<	⊙	4
49		⊗		⊙	4
50		⊙		⊙	4
51	↙	/	/	Y	4
52	/		<	⊙	4
54	V			⊙	5
55		⊗		⊙	5
57	↓	/	/	Y	5
58	↗	/		<	5

Example orienteering course card



Finding Direction Without a Compass

But what happens if we find ourselves out and about, but we don't have a compass and want to know the cardinal directions? It happens; phones get lost, broken or left behind. There are a few ancient methods we can use to find our way. Three involve the sun, and one uses the stars.

The three that use the sun are sunrise and sunset, the shadow-tip method, and the watch method. The one that uses the stars requires you to know only two constellations. Try each one in a public space or your backyard, before going out into the wild. Practicing these skills before you leave home will save you a lot of trouble and worry when you need them the most.

Sunrise and Sunset

First, we can use the rising and setting sun to give us a general idea of east and west. This is not the best method, and it requires you to be awake and able to see the sun on the horizon. At sunrise, the sun is generally to the east and at sunset, generally to the west. What is meant by "generally?" Well, due to Earth's tilt and its orbit around the sun, the sun rises more to ENE and sets a little more towards WNW—and this changes throughout the year. So, this is only a very quick way to get your bearings and it's not the most accurate.

Shadow-Tip Method

A much more accurate way to find direction is to use the shadow-tip method. For this you'll need a straight stick about 2 feet long (your scout staff can work well, if nothing the right size is handy), two markers (short twigs, stones, or whatever is on hand), and the sun must be bright enough to cast clear shadows.

1. Plant your stick in the ground as close to vertical as you can get it. It must be able to stand on its own. This is important for this method to be accurate so do your best.
2. Once you have the stick in the ground, find the tip of its shadow on the ground and mark this spot. If the shadow is faint, it can be easier to find by gently tapping your finger on top of the stick. Watch for the shadow of your finger moving to locate the tip of your stick. This first mark is WEST.
3. Wait at least 10 minutes but 15 minutes or more is best. You'll notice the shadow has moved, so place a marker at the tip of this shadow too. This mark is EAST.

4. Put your left foot on your WEST mark and your right foot on the EAST mark. You are now facing north, and south is directly behind you.

This works anywhere on Earth if you have the tools, good sunlight, and a stationary place to work from. It will not work if you move to a new place, or the stick is knocked around. If you are in the northern hemisphere the shadow cast by the sun will face north at solar noon. If you are in the southern hemisphere the shadow will face south at solar noon. Solar noon is the time of day when the sun is at the highest point it will get on that day and shadows are their shortest.

Watch Method

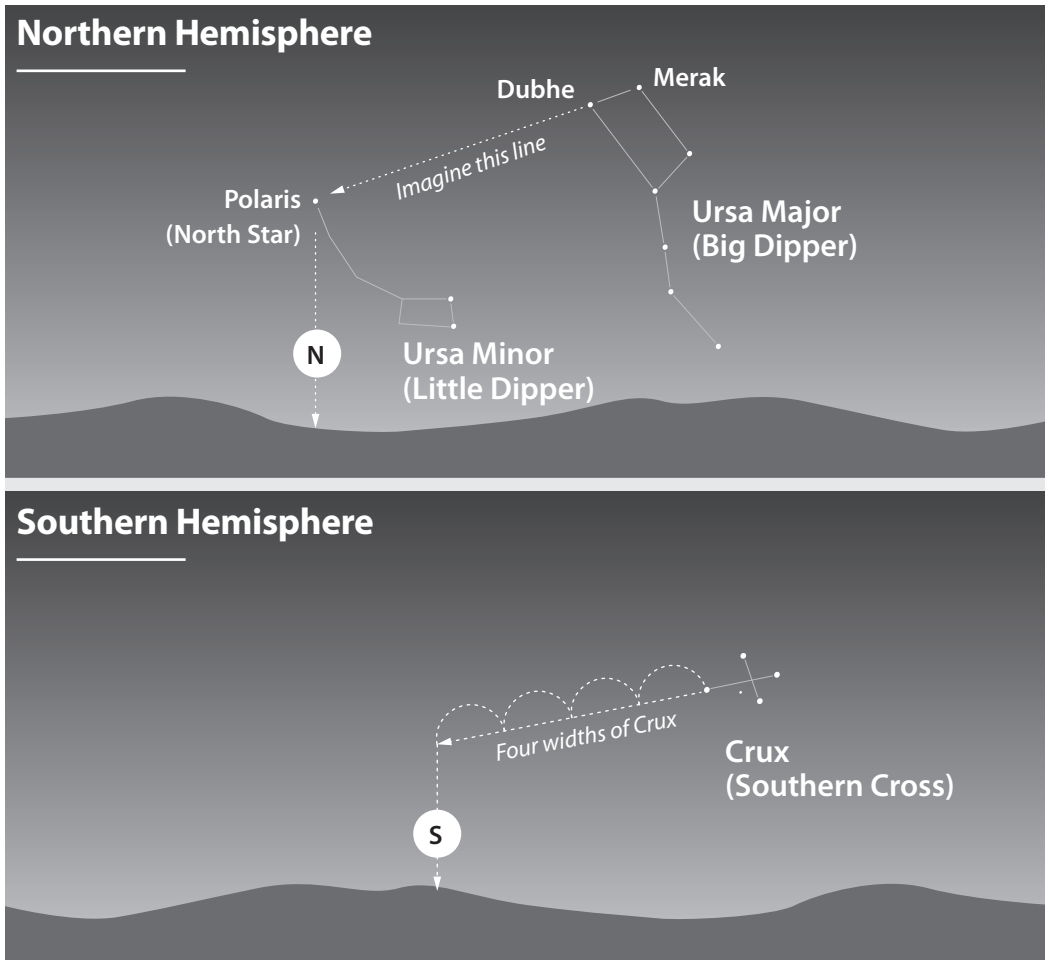
But what if you don't have the materials or the time to wait for shadows to move—but you do have a watch with an analog dial you can use that to find north?

- Make sure the watch is set to the local time with no adjustment for daylight savings.
- If you don't have an analog watch but you do have a digital one, just draw the current time in analog on something and line everything up.
- Hold the watch flat in front of you and point the hour hand of the watch at the sun.
- If you're in the northern hemisphere, halfway between the hour hand and 12 is south. (If you are using daylight savings use the one mark instead of the 12 mark).
- If you are in the southern hemisphere, then you'll point the 12 mark at the sun. Halfway between the 12 and the hour hand is your north-south line.

Just remember the sun moves from east to west and you'll be able to sort everything out. This method is more accurate the further from the equator you are. At the equator the sun will be directly overhead close to noon, which can make it very difficult to use this method.

Using the Stars: North and South of the Equator

If it's nighttime, you'll have a difficult time using the sun to find direction—but if you can see the stars, there is a way! To find north, you'll need to be north of the equator and able to locate the Big Dipper. The Big Dipper is a group of stars that resembles a ladle.



Next, follow an imaginary line from the two stars, from Merak through Dubhe, on the end of the ladle's bowl down, about 5 times their distance. You'll see a faint star at the very tip of the handle on the Little Dipper. That star is Polaris, and it stays motionless in the night sky. If you face that star, you'll be facing north.

It's important to know there is no south star. South of the equator you'll use a different constellation and find south, because neither the Big Dipper nor Polaris will be visible there. You'll have to find a constellation called Crux, also known as the Southern Cross. It has been used by explorers and sailors of for centuries to navigate the south seas.

To find Crux, look for the Milky Way in the western sky low on the horizon in the hours just before sunrise and after sunset. Follow an imaginary easterly line from the long arm of Crux that is about four times the length of the constellation towards the horizon. At the end of that line bring your eyes straight down to the horizon, that is south.

Pace Count and Estimating Range

Pace Count

Distance is as important as direction. There are a wide variety of tools and skills to aid you in keeping track of how far you have traveled. This simplest tool is your own stride. By keeping track of how many paces you have walked between two points, you can deduce how far apart those two points are. This is called your pace count and it's very useful to know.

First, you'll need to start with a known distance. An American football (football hereafter) field is probably the best place to start, as they are very carefully measured in 1, 5 and 10 yard increments and all are 100 yards from goal line to the opposite goal line. Football fields are very common across the USA and found at almost every high school and in many parks, so it shouldn't be too difficult to find one.

You have one choice to make at this point. Either count each and every step or count every other step. Each method has its benefits and drawbacks: counting every step is easy and natural, but it leads to a high pace count and can make the math a little unwieldy.

Pace Problem?

Counting your paces is different than Scout's Pace, a way to get there faster without getting too tired! If you've forgotten, you can review Scout's Pace on page 57.



Counting every other step gives lower numbers and allows you to count half strides for a little more accuracy, but you must remember to begin every pace count from the same foot. And your first single step doesn't count. You count a step every time the non-starting foot hits the ground. In your head it will go "step one step two step three..." It's up to you to choose but always use the same method from then on for the sake of consistency.

All you need to do is put your toes on one goal line and begin walking straight to the opposite goal line, keeping track of how many steps it takes you to reach it. Be sure to use your normal stride. Don't walk heel-to-toe, shuffle or take baby steps. Don't use a stride that is exaggerated or longer than you normally take. Walk along the sideline to make sure you take the most direct path possible, and don't look at your feet. It's not a race either, just walk normally.

Stop counting as soon as your foot crosses the line and write this number down. You now know how many steps it takes you to walk 100 yards. If you counted ev-

ery other step and your starting foot is the first to cross the line, then count it as a full step. It will all average out. Speaking of averages: if you have time, walk along your 100 yard course multiple times, keeping track of each trip. Then, take the average and drop fractions of steps. Once you've come to a reasonably consistent number, you might break your pace count down, so you know how many steps it takes you to cover 5, 10, and 25 yards. In other words, divide your 100 yard pace count by 20 to get your 5 yard pace. Divide by ten to get your 10 yard pace and by four to get your 25 yard count. Round fractions to the nearest pace.

This is your starting point in measuring distance by pace count. Note that factors can change your pace count, like walking up or down hill, on rugged terrain, rough weather, or dense woods. It's not a bad idea to keep an eye on changes to your pace in varying conditions.

The metric system is useful worldwide, so it's good to know your pace count in meters. You'll find your pace count for 100 meters is a bit higher than yards since a meter is a bit longer. 100 meters is 109 yards, so you could simply add 9% to your 100 yard pace count and that would just about cover it.

There are many tools to accurately measure distances, down to fractions of an inch. The most common will be a tape measure. Contractors use tape measures up to 300 feet long! Another tool is the measuring wheel, which is a simple wheel of a carefully measured diameter (often 1 foot) mounted on a stick with a handle. You place the wheel on the ground and push it ahead of you over your course, keeping track of how many times it makes a complete revolution.

Measuring wheels are now usually equipped with an automatic analog or digital counter that will keep track of the distance for you. Make sure you have zeroed the counter before you begin. Surveyor's tools, like a transit or a chain, are available but often expensive, delicate, and complicated but they are extremely accurate.

Of course, your smart phone is equipped with GPS and location tracking, and apps are available that will keep track of your steps, and even plot your course on a map. Don't ignore these tools but don't rely solely on them either. A cell signal is not always available, batteries die, and the phones can be fragile.

There are some simple substitutes for the tape measure and the measuring wheel. A ball of jute twine can be helpful, cheap, easy to carry in your pack, and has many additional uses. If you tie a tight overhand knot every 5 yards, you can use that to measure distance. Try to use natural fiber twine, as it's less prone to stretching.

Another idea is to use the wheel of your bicycle. If you measure the outer diameter and count every complete revolution the wheel makes as you walk your bike over a course. (Your bike's odometer, if it has one, will do also do the job.)

A final method of measuring distance is to keep track of how long it takes you to travel. You'll need to keep track of elapsed time while using this method. Many runners will memorize their "splits." A split is the time it takes them to run a fraction of a mile and they use this to adjust their pace. All you do is walk a mile and keep track of how long it takes. By calculating your splits down to quarters and tenths, you can do the math to estimate how far you have travelled in a given amount of time.

Keeping track of how far you've walked is just as important. You may want to give directions, estimate where you are along a route, or be able to draw a sketch map of the territory that's reasonably to scale. If a scout is keeping count of their pace, be considerate and do not interrupt them, distract them with conversation or ask needless questions. You may find it helpful to carry a handful of pebbles to keep track. For every 100 yards you walk, put a pebble in your pocket. You might carry a foot or so of twine and tie an overhand knot for every 100 yards. You may keep a tally of your paces on your fingers or with a notepad. If you carry a set of prayer beads, they can be very useful for keeping pace count. Even a necklace or wrist band with beads that slide with a little effort can be made and used as a sort of abacus.



MARC PAVONE

Pace counting beads

To make a set of pace count beads, get a length of cord about one-eighth inch in diameter and about 10 inches long. You'll also need 20 beads that fit tightly on the cord. Tie an alpine knot at the midway point and string ten beads on each free end then secure the beads by tying an overhand knot on the ends of the rope. Use one set of beads as your hundreds and the other as your thousands. You can use the loop of the alpine knot to hang your beads from a carabiner.

Estimating Range

If you're working on making a map, or if you trying to figure out how much further you have to travel before you get to your goal, estimating range or distance is pretty important. This is a skill that requires a lot of work, practice, and experience to develop. Judging distance simply by looking is very tricky and prone to error unless you keep many factors and facts in mind. Luckily for us there are many techniques and tools available to aid you.



4a

One such technique is the football field method. If you play a sport like football, soccer, lacrosse, or hockey (field or ice) you'll be well acquainted with the field that sport is played on. Do your best to visualize how many fields would neatly fit between you and the object in the distance you are ranging.

Another way to judge distance is the flash-to-boom method. You're probably familiar with this technique for estimating how far you are from a thunderstorm. Sound travels roughly 375 yards per second (or about a mile in five seconds), in ideal



How Long?

To get you started, here are the lengths of some common objects.

- Mailbox = 1 ½ feet
- Adult tree trunk = 2 feet
- Small car = 14 feet
- Typical SUV = 15 feet
- Large pickup truck = 18 feet
- Semi-trailer = 50–65 feet

atmospheric conditions. When you see the flash of lightning, begin counting, “One-one thousand, two-one thousand, three-one thousand...” until you hear the clap of thunder. With practice you can accurately keep track of how many seconds it takes to see the flash then hear the thunder. Multiply that time, in seconds, by 375 and you'll get the distance to the storm in yards. Or divide the number of seconds by five to get the approximate number of miles.

But this isn't only for storms! If you see a firework explode in the distance and begin counting till you hear the boom, you can estimate that distance, too. This works for anything where you can see the event then hear the sound after. So, send a scout ahead with a flag and whistle. Have them stand where you can see them, then hold the flag over their head. They briskly lower the flag and, at the same time, give the whistle a short and hard blast. Begin counting when they drop the flag and stop when you hear the whistle. If you use a stopwatch that marks tenths or hundredths of a second and use that fraction when you do your math. It will make your estimate that much more accurate.

Simple Range Estimation

A simple way to get a rough estimate of the distance to an object is to use a trick that takes advantage of the difference in where each of your eyes sees things.

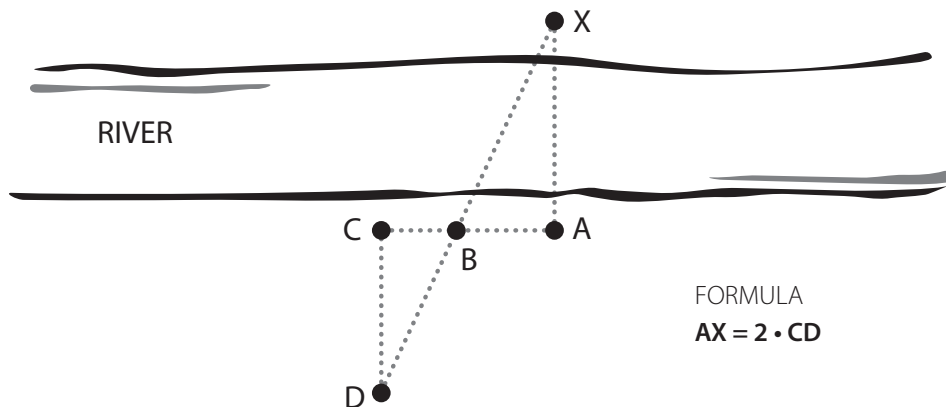
1. Start by finding an object, one where you have a good idea of how long it is parallel to the ground, like a car.
2. Hold up your right arm fully outstretched with your right thumb in the “thumbs up” sign.
3. With your right eye closed, line up your thumb with the right hand side of the object.

4. Holding your thumb still, open the right eye and close your left eye. Your thumb will appear to jump to the left.
5. Estimate how far your thumb jumped by how far across the object it seemed to move. For example, if the thumb moved from the right side to the middle of a car, and the car is about 15 feet long, it jumped about $7\frac{1}{2}$ feet.
6. Multiply that number by 10. That's roughly how far away you are from the object.

There are many factors that make estimating range tricky and prone to error. Judging distance is difficult when looking out over a large body of open terrain or water, due to the lack of terrain features. If you are on a hill or mountain top it can be difficult to estimate range to another peak because the trees on the tops of mountains tend to be smaller than those down low, setting up an optical illusion that makes things look further away or bigger than they actually are. Looking towards the setting or rising sun can make long shadows that distort proportions and cause temporary blindness. Finally, having no people or man-made objects to compare things to makes estimation difficult.

Distance Across a River

The way to estimate the distance across a river is to notice an object X, such as a tree or rock, on the bank opposite to where you stand at A (see diagram below). Start off at right angles to AX, and walk, say, 90 yards along your bank. On arriving at 60 yards, plant a stick or stone, B. On arriving at C, 30 yards beyond B and 90 yards from the start at A, turn at right angles and walk inland, counting your steps until you bring the stick and the distant tree (or other object) in line. The number of steps you have taken from the bank, CD, will then give you the half distance across from A to X.





Judging Numbers

4b

Scouts should be able to judge numbers; for instance, to tell at a glance about how many people are in a group, or on a bus, or in a big crowd; how many sheep there are in a flock, or cattle in a herd; how many marbles on a tray, and so on. One of the best ways to estimate large numbers is to count the number in a small group or section and apply this unit to the whole.

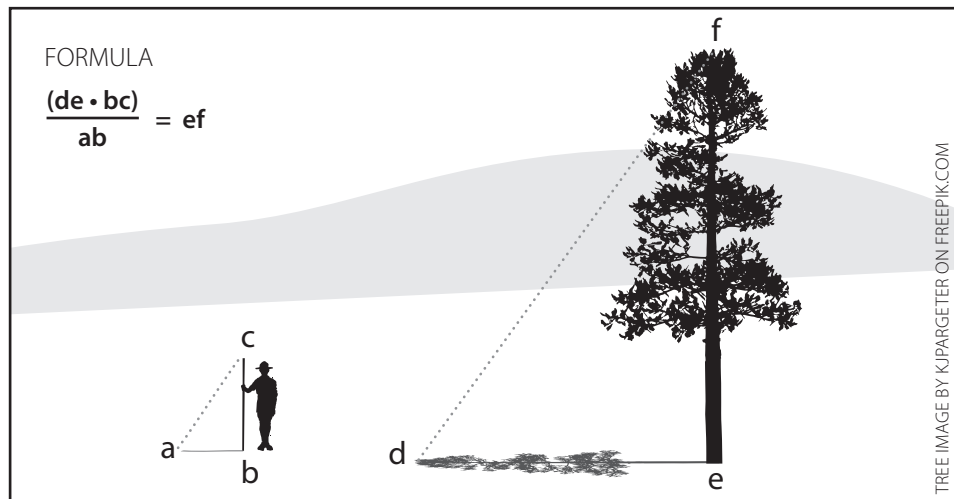


Estimating Height

4c

A scout must also be able to estimate height, from a few inches up to three thousand feet or more. That is, they must be able to judge the height of a fence, the depth of a ditch, or the height of an embankment, of a house, tree, tower, hill, or mountain. The ability will come readily through practice; it is a difficult subject to teach by book. The readiest way to estimate the height of a building is to calculate the height of a story and multiply that by the number of stories. A good starting estimate is 10 feet per story plus 3–5 feet for the roof.

First Method: By Means of Shadows



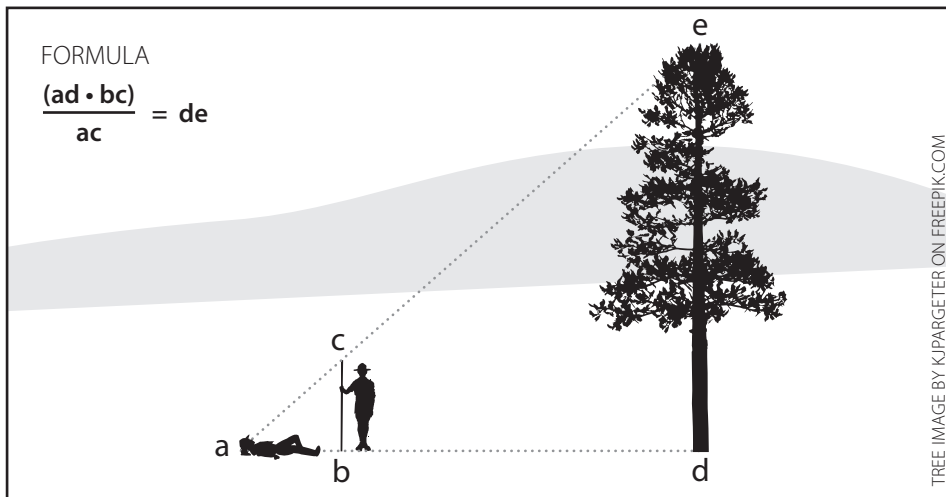
For this you will need your scout staff, or some similar straight stick. You will, of course, know the length of the stick; if it is your staff, you will have feet and inches notched on it.

Stand your staff (bc) upright in the sun and carefully measure the length of its shadow (ab). Measure the length of the shadow of the tree (de). Multiply the tree's shadow by the length of the staff and divide the result by the length of the staff's shadow. The answer will be the height of the tree (ef).

This works because the shadow of the staff and the shadow of the tree should be

the same length relative to the height of the object casting the shadow (the tree, or your scout staff) if you're taking both measurements at the same time of day. Since you can measure the shadow, you can use this similarity to estimate the height of the much taller object.

Second Method: When the Sun is Not Shining

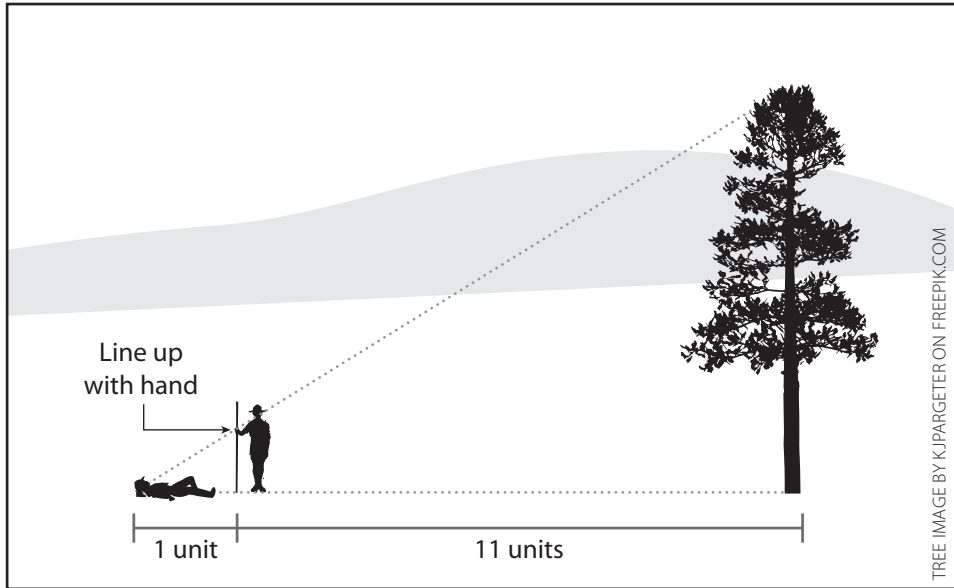


Have a fellow scout lie on their back on the ground at the point a, which is about as far away from the tree as the tree would seem to be tall. Now have a second scout take a scout staff, and walk toward the tree, moving the pole back and forth until it is in such a position that the scout lying on the ground says that the top of it is in line with the top of the tree. The distance from the scout's eye to the foot of the tree multiplied by the length of the stick and divided by the distance from the scout's eye to the stick gives you the height of the tree.

This method also works because of a relationship—in the diagram, you can see two triangles, both starting from point a. One triangle goes to the scout staff, and the other to the tree. The two triangles are proportional, meaning they get bigger (or smaller) at the same rate. Because you've lined them up, you can estimate the size of the tree based on the size of the smaller scout staff.

An Alternative Method

To find the height of an object, such as a tree or house, pick a unit of measurement—for example, feet, yards, meters, or paces. Then, walk 11 units away from the tree and set up a staff with another scout to hold it. From there, using the same line from the tree, walk one more unit of your chosen measurement away from the tree and the staff. You should end up 12 units away from the staff, with the staff directly between you and the tree.



Get your eye down to ground level at this spot and look up at the tree. The second scout then slides their hand up or down the staff until your eye, their hand, and the top of the tree are all in line.

Measure the distance in inches along the staff from the ground to the scout's hand; the number of inches is the height of the big object in your chosen unit of measurement. You can use any unit of measurement you find suitable if you keep an 11:1 ratio the way it's described above.



Know Your Pace!

If you chose paces as your unit, moving 11 paces away to place the scout staff, then one pace further, it's easier to get the distances right but you have a little math to do at the end. If you determine the hand on the staff is 30 inches from the ground, that will mean the tree is 30 paces tall. You then have to multiply 30 paces by the length of your pace to figure out how tall the tree is in a more common measurement like feet or yards.

Making a Sketch Map



A *sketch map* is what it sounds like: a simple sketch of an area to give the reader a working idea of where things are in relation to each other, without going into fine detail. You've probably drawn a casual sketch map to give directions to someone from out of town. Sketch maps dispense with exact detail in favor of getting things in the relatively right place and size. They'll feature terrain that can be easily seen and used for navigation and prominent landmarks like businesses, public buildings, unique private buildings, traffic lights, towers, statues, ponds, intersections, and such.

You'll want to choose a route and then walk the terrain to familiarize yourself before drawing a sketch map. Here are some tips:

- Have your compass in hand.
- From the starting point, shoot an azimuth along the path to the furthest point you can see. This is often a point where the path turns or disappears from sight because of a rise or dip in the terrain. Sometimes there will be foliage or other terrain blocking your view.
- Note this magnetic heading, then do your pace count to that spot, then write that beside your heading.
- Shoot another heading to the next point where your route goes out of sight then take your pace count to that point. Along the way you should make note of trail markings, crossings, prominent rocks or fallen trees, streams, bridges, lean-tos, ruins, buildings, etc. It also helps if you make notes about the slope of your path.
- If you reach a vista or other spot where you are afforded a rewarding view, take a magnetic reading to something in the landscape you can see and make note of it. People following your map will be able to easily track their progress and know what to look for as they go.
- Indicating whether the trail is flat, gently rolling, or steep can help people following you plan their pace and know what to expect. It's useful to show which way is uphill.
- Continue the process until you have mapped your entire route.

If you have a fellow scout with you, things can be a bit easier. Have your friend

walk ahead of you, and signal for them when to stop when they disappear from sight. Take your magnetic reading and then walk to them, keeping track of your pace count. If you both keep organized notes the whole time you can check each other's work to catch errors.

After your outing, use a pen, paper, the compass, and a straightedge to transfer your notes to draw your map. You may want to use colored pencils. Red for the trail, blue for water, green for dense foliage and black for man-made structures all help make your map that much easier to use. Draw everything to scale and include the scale plus a magnetic north arrow so the reader knows how to orient your map.

Final words: Don't worry about getting every tiny dip, bump, and kink along the way. Paying too much attention to detail can make the task tedious and confusing.

Making Accurate Maps

Back before GPS, satellites, aerial reconnaissance and RADAR, mapping was done entirely with compasses, surveyor's chains, telescopes, and surveyor's transits. Scouts went out ahead of the main group and had to judge distance by eye, pace count, or by time traveled. They may have only had a simple pair of binoculars to look ahead. With a piece of paper, a compass, and a protractor, they made the best maps they could so their leaders had the most accurate information possible.

Earning your Map Maker badge depends on you being able to do the same with similar tools. To do this you're going to have to learn some important skills.

We'll begin with scale. A map's utility depends, in part, on it being portable and manageable. To fit those criteria maps are drawn to scale. Simply put, scale is the ratio of the small measurement used for a map to the large one used in real life. If you have ever built a model of a car or airplane, you'll be familiar with this already. A common scale for plastic model kits is 1:24. The scale means 1 inch on the model would be 24 inches in real life. (The scale holds if you use metric as well.)

Maps need to use even smaller scales to be of any use. A common scale for USGS maps is 1:36,630. At that scale, 1 inch equals 36,360 inches (1 mile) in real life, which is the same as 1 inch on the map equals 1 mile on the ground. A map's scale is always printed within the legend. If you are drawing a map, it is important that you include the ratio of map units to real units on the ground. Be clear and consistent! Write it somewhere on the map or agree to it in advance and stick to the plan. If you are inconsistent then people using your map may not travel far enough, they may go too far or they may just give up and ignore your instructions altogether.

Now let's talk about north. On a hand-drawn map it is often not necessary to differentiate between true north, map north, grid north, and magnetic north. Magnetic north is good enough, easier, and using it will reduce the chances for error. With your paper in front of you and laid out as you plan to draw on it, place your compass near an edge and orient it to magnetic north, then mark this line on the map. It helps a lot if you make north parallel to one edge, though this is not always practical. This is important so you can be consistent when you begin taking magnetic azimuths.

Intersection and Resection

This next skill is easier to understand by doing, so let's try an exercise together. What you are about to learn is how to locate objects on a map by intersection. We will make a map of an imaginary park in an imaginary town and triangulate the location of three large landmarks within it. You'll need a standard 8 ½ x 11 inch sheet of paper, a 12 inch ruler, a pencil, and your compass.

Map by Intersection

Let's begin by establishing our scale:

By using our pace count we find the park is 425 yards on the short sides and 550 yards on the long sides. This makes it easy for us to set our scale of 1:1800, or 1 inch equals 50 yards. By taking a magnetic azimuth along the eastern edge of the park from the southeast corner we find that the long edge is perfectly oriented to magnetic north. So, write on the bottom edge of the paper **1 inch:50 yards** and draw a north-pointing arrow parallel to the eastern edge.

Transfer the first set of data:

Now imagine yourself standing on the southeast corner of the park. This is the bottom right corner of your paper. You look across the park and pick out a large object, an enormous pine tree. Pick up your compass and shoot a magnetic azimuth to the tree and end up with a magnetic azimuth of 335 degrees. Jot that down on your notepad and make note of where you took that reading. Now imagine walking over to the southwest corner of the park. From this point you find the same pine tree. You take out your compass and take a magnetic reading of 38 degrees. Jot that reading down on your notepad. Now you are ready to transfer your data to your map.

Find the location of the tree:

Orient your paper so the long edge is parallel to magnetic north. Square up

the bottom left side of the compass with the bottom right corner of the paper. Slowly rotate your compass, keeping the two corners aligned until the index line matches up with your first reading. In this case, 335 degrees for the tree. Use your ruler and pencil to draw a straight line the length of the paper, from the southeast corner of your map along that 335 degree course.

Mirror the same process from the southwest corner of the map.

Place your compass with its right edge along the left edge of the paper, with the matching corners closest to you squared off. Slowly rotate the compass so the index line matches the 38 degree reading on the dial. Use your pencil and ruler to draw a straight line along the right edge of your compass. You have now pinpointed the location of the tree in the park! If you use your ruler to measure the distance of the tree from each corner, you should find the line you drew from the southeast corner is about $7\frac{5}{8}$ inches long and it is $8\frac{15}{16}$ inches from the southwest corner. Congratulations!

You could use this technique to find the location of real objects in the real world. If you have two known locations (like a hilltop, a prominent intersection of roads or a tower) and your compass, you can locate other objects by shooting magnetic azimuths to other visible objects. Forest rangers use this technique to spot fires and other emergencies from their fire towers. If two rangers in towers take readings and share the info by radio, they can send help to the exact spot that needs it.

Map by Resection

The reverse of intersection is *resection*. If you don't know where you are, but you can see two prominent objects and locate them on your map, you can find your location by shooting magnetic azimuths at them. Let's use our map of the imaginary park and find an unknown spot.

Let's say we walk roughly into the center of the park. We have no less than seven known points to take magnetic readings from. There are the four corners of the park, the tree, the Maypole, and the fountain. Let's use the northeast and the northwest corner of the park.

Get a reading of your selected prominent objects:

Using your compass, you shoot your azimuth to the northeast corner and get a reading of 42 degrees then you shoot your azimuth to the northwest corner and get a reading of 320 degrees. So, we have those readings, but that doesn't really help us find our location in the park yet. We need to do a little math to find the back azimuth.

Do a little math:

If your magnetic reading is LESS than 180, you'll ADD 180 to it. If your reading is MORE than 180, you'll SUBTRACT 180 from it. Our first reading was 42, so we add 180 and get 222 degrees. Our second reading was 320 so we subtract 180 and get 140 degrees. So, we now have adjusted readings of 242 degrees for the northeast corner and 140 degrees for the northwest corner.

Begin plotting azimuths:

Make sure your map is oriented to magnetic north and we can begin plotting the azimuths. From the northeast corner we draw a line along a magnetic heading of 242 degrees. Then from the northwest corner we draw a magnetic heading along 140 degrees. Well done! You are standing where those two lines cross. It is very important to remember to adjust for magnetic declination if you are using a printed map. Take your time and do the math carefully.

This entire process is called *triangulation* and is used by cell towers to locate your phone, by bats and dolphins (using sonar) to locate food and danger, or by radar stations to locate ships, airplanes, and storms. If you can find a 360-degree protractor, add it to your orienteering kit. A 360-degree protractor is a circle or square marked off in degrees clockwise and sometimes counterclockwise. It can make the process of triangulation easier by eliminating the need for doing math when plotting back azimuths.

Reading Topographic Maps

Contour Lines

A topographic (topo) map is one that includes the contours of the Earth, in addition to the usual mapping information. It will allow you to “see” the slope of hills, cliffs, and valleys of the land. It takes some practice but with effort you'll be able to interpret contour lines to find the safest, easiest route.

Simply put, a contour line is a series of points connected along a given height above or below sea level. On a USGS map and almost every state's trail conference



7a



Legendary

Any other information you need to read a USGS map will be provided in the **legend**. The legend is a box set aside on the edge or corner of the map that details any colors, symbols, navigation aids, copyright, scale, and features used on the map. If you ever see a symbol on a map and need to know what it is, look to the legend for your answer.

maps, contour lines are printed in a reddish brown, so they can be distinguished from other markings and read under daylight, white light, or red light.

Some contour lines will be printed a bit heavier than others. These are called *index lines* and intermittently have the elevation printed within breaks along the contour line. The elevations on those lines will be in round numbers, like 200, 400, 1280, etc. If an elevation is provided as a precise number like 3481, it will be the highest

point on that hill or lowest point in that valley if the U.S. Geological Survey decided it is a notable landscape feature.

Lighter lines are called intermediate lines and denote equal divisions of index lines. Sometimes a contour line will be an even smaller division, but these are rare. Just know that they will be an even smaller division of intermediate lines. Contour lines are usually, but not always, given in 20 foot increments on USGS maps. Also keep in mind that if you travel outside the USA, maps often use meters rather than feet to keep track of elevation. Always check the legend for the scale and the contour interval on any map.

You'll notice contour lines follow a few other conventions:

- Any single contour line can be traced to form a closed loop.
- Any contour line that cannot be traced back to your starting point is probably near the edge of the map. They will almost always be very irregular in shape.
- Contour lines are drawn in concentric loops that outline the shape of hills. These concentric loops will get smaller and more circular as you go up a hill and become larger and more irregular as you descend.
- When the lines are far apart, they will let you know the slope is long and gentle. Contour lines that are packed closely together denote steep slopes or even cliffs.
- Some contour lines may have tiny hash marks on them. These hash marks will point toward lower ground and are used to bring attention to man-made

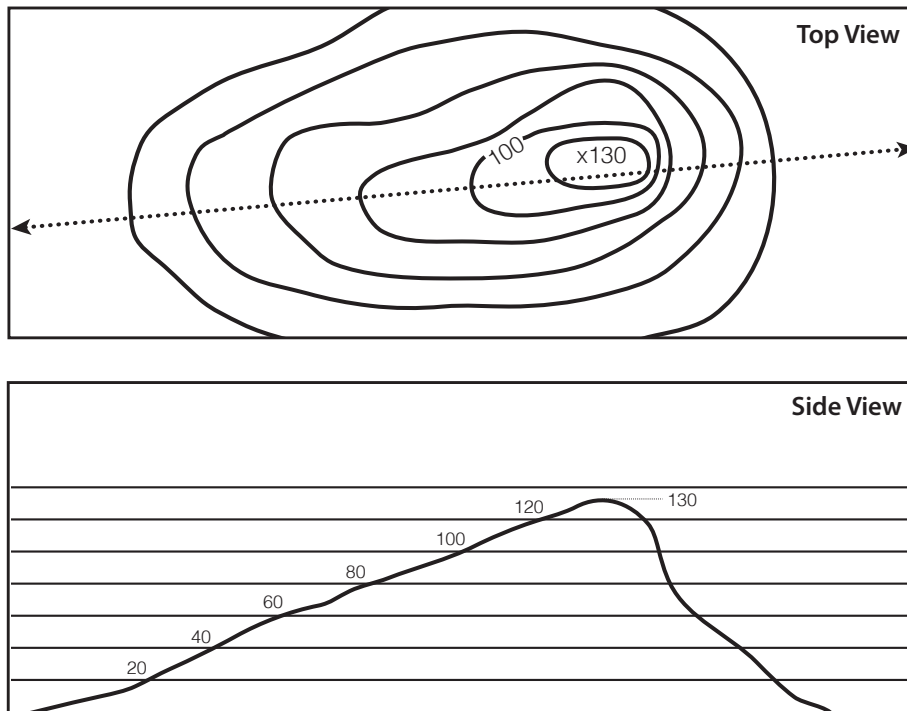
depressions like quarries, wells, excavations or *cuts*. These represent nearly vertical slopes, and their rapid change in elevation can be extremely dangerous. Never plan a route across one of these contour lines unless it is absolutely necessary, and you have the means to safely traverse them.



Sliced Potato Contour Map

An easy way to visualize how contour lines work is to cut a potato into uniformly thin slices. Using a kitchen slicer, cut a potato into slices about $\frac{1}{16}$ inch thick. Once the potato is sliced up, you'll find it possible to roughly "reassemble" it back into its original shape by laying each slice on the one that closely matches it. Be careful using this method as these slicers tend to be very sharp. Use any safety guides or holders to keep from injuring yourself.

Take a look at the diagram below to see how topographic lines translate into what you may see on the ground. Notice how the contour lines are far apart on the left and close together on the right, and the slopes those differences produce. Also notice that the smallest contour line at the top of the hill still has a bit of rise in the center. Don't be surprised if a hilltop isn't perfectly flat at the peak.



Common Topo Map Conventions

Any permanent man-made structure will be drawn in black for buildings, streets, and roads, while trails and highways will be in red. All water features will be in blue with names of water features also in blue. Public lands are colored green. Cleared areas or private land will be white. Be warned, just because an area is white does not mean that it is completely bare of vegetation and wide open. There may be thick undergrowth, housing developments, farmland, or vegetation aside from tall trees in those areas.



Thin Blue Lines

You may notice that Universal Transverse Mercator (UTM) lines are blue as well. It is very easy to distinguish between water features and UTM lines because the UTM lines are perfectly straight and form a grid while water features will be very irregular in shape. For your knowledge, UTM is the term used to describe lines of latitude and longitude.

Private land is often clearly marked as such, and you are legally required to stay out of it. Military bases and posts, prisons and jails, and any other restricted spaces will be marked on the map and on their boundaries in the real world. You are required to stay out of them. Never plan a route that takes you through such a restricted space without permission from the landowner. Many will allow you to cross their land if you ask permission first.

Some public areas may be surrounded by private land, but the public will be granted access to it through rights-of-way. Landowners are usually required to keep rights-of-way accessible to the public, and it is your responsibility to stay in the right-of-way. Leaving it constitutes trespassing and you can be held liable for it. Take care when planning routes through these areas and always ask permission if you are unsure.

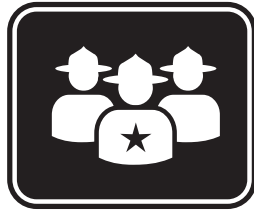
You'll see that fonts change many times all over the map. Generally speaking, the fonts will be used for specific names or notes. For example, the font used for towns will be different from those that label roads and streets, but they will always be the same type of font for the same type of feature. The name of a large terrain feature may spread across several inches of the map so if you see a single, large word or letter, look along the same direction for the rest of the name.

Trails will often be drawn in solid red with circled letters along their course. These letters note the color of the trail. This means that paths may be set up to allow for different hiking experiences, and those trails are often assigned colors. Markers along the trails will be the same as their assigned color, so the White Trail will have white trail markers and the trail on the map will be marked with a circled letter W, for White. Less formal maps, like those provided by a park maintained by a private organization, may use different colors than those outlined above. A trail

color in the park may be drawn on the map in that color. They will usually follow the same conventions for water, forest, accessible spaces, and names.

End of Chapter Reflection Questions

- Why do you think we learn to navigate with a map and compass when many people have GPS and map apps on their phones? Why do we learn to navigate when we don't even have a map and compass and have to use the sun or stars?
- How are maps of cities and maps of countryside different? How are they similar?
- How long do you think it would take you to get good at estimating distances, for example, within 25%? What about 10%? Practice and see how long it actually takes you. This could be a fun patrol challenge.
- How does the project of making your own map help you see the territory differently?



17

PATHFINDER LEADERSHIP

Being a Pathfinder patrol leader is a fantastic opportunity to stretch yourself as a scout. It takes people skills, planning, and the personal discipline to always lead by the example you set for other scouts. Your scout leaders will determine how your group chooses their patrol leader. In some groups, the patrol leader is appointed by the scout leader and in other groups the patrol leader is elected by the patrol, with the scout leader's approval. If your group has not yet chosen a patrol leader, and you want the opportunity to lead, let your scout leader know. Volunteering to do the job is a great way to start this important conversation. If someone else is the patrol leader, but you would like a turn, speak to your scout leader about whether there will be an opportunity for you to lead in the future. Patrol leader is not a lifetime appointment, and the job can change hands as often as the patrol and the scout leaders agree to make a change.

How to Lead a Patrol

Once you become a patrol leader, you will need to demonstrate the skills of being a good leader. When talking to the scouts in your patrol, be sure you are courteous and respectful. Most scouts respond better to encouragement, and they want to learn to do their jobs, such as lighting a campfire, even if it is hard for them.

As patrol leader, you'll get to choose your seconder, sometimes called the assistant patrol leader. This scout will be your biggest helper in running your patrol. It's ideal if this person has different strengths and weaknesses than you do, so that you balance each other. Knowing that you don't enjoy leading campfire songs, but your seconder does, can make it easy to ask them to help you with that task. Sometimes a scout who is difficult to lead makes a great leader, so be open minded about who might be a great seconder.

Part of your work will be helping the scouts in your patrol learn skills. In other words, you need the skills so you can teach them. Be patient. What might have been easy for you, could be hard for some scouts. If they are struggling, ask yourself if there is anything appropriate to do to help or if you should just stand back and give them room. Remember, your seconder is there to help you and the entire patrol, so call on them when you or anyone else needs help. It is acceptable to ask someone else to step in if you feel frustrated.

Patrol Meetings

One of your jobs as patrol leader is to lead regular patrol meetings. These are the times set aside for your patrol to meet by yourselves, without adult leaders or scouts from other patrols. You'll probably find it's a lot easier to get things done and make decisions in the smaller group, but it still takes a bit of leadership and planning for your patrol meetings to be fun and rewarding for everyone.

These meetings can be used to plan an upcoming outing, help scouts with badge work, learn a new skill, or take care of other patrol business. Before a meeting, you'll probably want to make an agenda, or a list of things that the patrol will spend time doing and/or discussing. It's a good idea to set time limits for different activities, so you can get to everything.

Here's an example agenda:

Fighting Paramecium Patrol Meeting

January 23, 7–7:45 pm

Brooklyn's house

ACTIVITY	TIME	ACTIVITY LEADER
Go over how last campout went	10 minutes	Skylar
Work on Tenderfoot tests	25 minutes	Kendall
Pick a date for spring campout	10 minutes	Brooklyn

Patrol in Council

Patrol leadership means a lot of communication—both talking and listening. It's not your job, as a patrol leader, to be the boss of everyone, but rather to help the group make good decisions and figure out how to get things done together while having fun.

When at camp or out on another activity, getting together to have a quick discussion is called the *patrol in council* (PIC). The patrol in council can be used as a time to divide up duties in camp, share the day's activities with everyone, or take a quick poll to decide if the patrol would rather swim or go for a hike. It's not as long or structured as a patrol meeting, and it is called by the patrol leader or seconder as needed. For example: when in camp, after getting some new information from the scoutmaster, patrol leaders will want to call a quick patrol in council to share updates with everyone in the patrol at the same time.

As patrol leader, you may lead your scouts through badge work, on various adventures, in doing community service or on camping trips. Before starting any of these, sit down with your scoutmaster and plan, before presenting to your patrol. There is nothing so disappointing for a patrol as having their patrol leader tell them they will be going on a wonderful adventure, only to have the scoutmaster say they can't. Factors such as cost, distance, weather, and needed gear are all areas your scoutmaster can help you consider. A great place to work on this plan is in the court of honor.

Court of Honor

The *court of honor* is simply the traditional scouting name for a regular get-together of a troop's adult leaders and patrol leaders. Seconders may attend in place of their patrol leader when necessary or may be invited to join along with patrol leaders. The court of honor covers any topics that are important to the troop's adult or youth leaders. Attendees may discuss preparations for an upcoming outing, brainstorm ideas for working with a scout who's having trouble or finding youth leaders the support they need. The patrol leader should represent the ideas and interests of their entire Patrol, not just their own. They can ask the adult leaders for help getting resources, such as reserving a campsite or finding someone to teach a specialized skill for a proficiency badge. Adult leaders can suggest good plans for what to do on the next campout or ask the patrol leaders how scouts in their patrol are doing on their badge work.

Holding a regular court of honor in your troop is one of the key practices that builds a scout-led troop. Youth leaders provide essential input from their patrols around planning and make decisions for the troop with the advice and guidance

from the adult leaders. Youth leaders can also lead planned activities with confidence, having reviewed plans and gotten the resources they need.

Many troops will hold a brief court of honor (15 minutes) after each regular troop meeting, and have at least one during a weekend camp out, but troops will choose the schedule that works best for their needs.

Camping as a Patrol

Camping requires a lot of planning. Begin your patrol meeting by discussing what the goal for the camping trip is. Are scouts working on second-class cooking, or is everyone interested in trying their first big pioneering project? Once you have a focus, you need to choose a date to go, and a location that meets the needs of your group.

If you aren't sure how to begin this part of the planning, talk to your scoutmaster about it. Your group will need appropriate gear for the weather, so take that into account as you consider when you'll go camping. Many groups prefer camping in spring or fall, when the weather is most mild, but this is up to you.

When taking a patrol camping, you need to be sure each scout will have their personal gear. This includes a tent (or place to sleep), a mess kit and their 10 Essentials. But what gear should the patrol share, and how do you plan for food?

There are different ways to figure this out: the patrol leader and second in command might talk about it and present a plan, the group could discuss it all together in the patrol meeting, or different members of the patrol could be assigned different jobs to prepare. What works best really depends on the experience and interests of the scouts in your patrol. Over time, you'll want to share the responsibilities for planning, so that other scouts learn how to do these things—and maybe become the next patrol leader.

Let's say you've decided to tackle the Cooking badge during your campout. First, make a list of meals you want to cook. Be sure to list every meal you'll need to have at camp. Each meal will require planning, so you must make a menu.

You'll need to make both a supply list, and a grocery (menu) list for each meal



for your camping trip, to make sure you have what you need. Remember, you can wash your gear between dinner and breakfast, but you may want to bring two bowls, rather than take time to wash and reuse one in the middle of dinner prep.

Now, consider what you'll need to cook this meal, and don't forget you'll need to chop the ingredients and stir it as everything cooks. Review the patrol box checklist in the cooking chapter (Chapter 14). Are there any special tools you might need that are not already on that list? If so, figure out who can bring them. Will you cook on a stove, or do you need a tripod or grill to put your pot over the fire? Be sure you write down a checklist of everything you'll need, so you have the right materials and can work on that Cooking badge.

Of course, you'll also need to clean up, so don't forget to list tubs, water, and soap for doing the dishes. These items go on your supply list.

Next, create a schedule for your group for the trip. Part of being prepared is anticipation. Make a grid like the one below and fill in what will take place at each time. Instead of just listing the "Cookie" (the person responsible for the food), you may rotate assignments by name in your patrol. Be sure your entire patrol knows that they must help with chores.

This chart may also help you see gear you need to add to your own list. Items like ropes for tying and the flags to fly need to be on your gear list, even if you know your scoutmaster will bring those.

Sample Schedule

TIME	TASK	SCOUT RESPONSIBLE	GEAR NEEDED
4:00 PM	Arrive at camp, and set up tents	All scouts	Pioneering staves for setting up flagpole, rope
5:00 PM	Raise Flags and Open Camp	Patrol leader	American, state flags, patrol flags
5:30 PM	Begin Dinner Prep	Cookie	Patrol box, cooler
6:30 PM	Eat dinner	All scouts	
7:00 PM	Clean up dinner	All scouts led by seconder	
8:00 PM	Campfire	Lit by newest scout, attended by all	
9:00 PM	Sleep	All scouts	
NEXT DAY			
7:00 AM	Breakfast	Led by cookie	
8:00 AM	Hike	All scouts led by patrol leader	Three copies of map, compass
10:00 AM	Return to camp and work on Knots, lashing, and splicing	Led by seconder	Braided rope (for splicing), rope bag
11:30 AM	Lunch Prep	Led by cookie	
Noon	Lunch and Clean UP	All scouts	
1:00 PM	Games	All scouts	Soccer ball, cones
2:00 PM	Spooling	Led by patrol leader	Sketch books, two to three field guides
3:00 PM	Snack Break	Led by cookie	
4:00pm	Practice songs and skits for campfire	All scouts	
5:00PM	Dinner Prep	Led by cookie	
6:30 PM	Eat Dinner	All scouts	
7:00 PM	Clean up dinner	All scouts led by seconder	
8:00 PM	Campfire	All scouts led by patrol leader	
9:00 PM	Sleep	All scouts	
NEXT DAY			
8:00 AM	Break Camp and "Leave No Trace"	All scouts	



Role Descriptions

Think about using your patrol meeting to assign roles, and be sure to change them around so everyone learns new skills.

Patrol Leader: General oversight of tasks. Ensuring everything gets done. Helps the other patrol members where needed.

Cookie: Cooks the meal with the help of the Sous Chef and other scouts.

Sous Chef: Works with Cookie to complete the meal.

Hydration Manager: Ensures there is water available for handwashing, cooking, and dish cleaning. Heats up water for dishes as required.

Firestarter: Ensures the fire is ready for cooking and is burning safely. Reminds the patrol of fire safety guidelines when necessary.

Captain Scrub: Cleans dishes after the meal along with the Wishy Washer

Wishy Washer: Cleans the dishes after the meal along with Captain Scrub

Camp Steward: Supports all Patrol members in their duties, helps gather firewood if needed and provides an extra helping hand as needed.

TIP: Try to consider if any of your scouts are working on a badge requirement that ties to a camp chore and assign them that. If you find it's hard to assign chores in a way that is fair, be sure to discuss this with your seconder or scoutmaster. They may be able to help you figure out another option.

Each role can be rotated by day, time, or activity. So, for your camping trip, a different scout could be cookie for each meal, and all jobs rotate. If you rotate chores, be sure to clearly assign who will do which role when and post a chart if possible.

Bronze Arrow Training

Youth leaders are eligible to attend Bronze Arrow Training, a weekend-long training camp where you work with other scouts learning to be patrol leaders and seconds. Here, you'll practice new ways to work effectively with your patrol to help everyone have a great scouting experience. Ask your scoutmaster to help you find out when the next Bronze Arrow Training will be available



**Bronze Arrow
Training patch**

near you. There are also additional leadership opportunities to explore beyond the Bronze Arrow Training, once you are ready to pursue them.

End of Chapter Reflection Questions

- Who are some people around your age that you see showing good leadership? What does that look like?
- Who are some people you've seen who aren't always acting as good leaders? What does that look like?
- How does a patrol activity feel different than a whole troop activity?
- What does a "scout-led troop" mean to you? Is your troop scout-led?



18

SCOUT AID

“On my honor, I promise that I will do my best
To render service to my country,
To help other people at all times,
And to obey the Scout Law.”
~ *The Outlander’s Promise*

When Being Prepared Saves Lives

Two Rovers and three Pathfinders from the 91st Sojourners in New York State were driving together to an event. An unhelmeted motorcyclist pulled in front of them. One Rover took this opportunity to discuss helmet safety, while the rest of the occupants nodded agreement (and rolled their eyes). Always wear your helmet. Always wear your helmet. ALWAYS wear your helmet.

A car in front of the motorcycle abruptly turned right onto a side street. A large pickup truck turned left off of the side street. The pickup driver couldn’t see the motorcyclist, who locked the bike’s brakes trying to stop. Very luckily, the cyclist was able to slow down to about 15 MPH before striking the pickup. Their left knee and fender hit the back door panel, and their face and head bounced off the window.

The scouts immediately react. One Rover gives instructions quickly and loudly to the others. Call 911. Now. Call 911. Pathfinder complies. Get the first aid kit. Pathfinder complies. Grab the blanket. Pathfinder complies. Block traffic. Rover complies. The Rover with the most first aid training surveyed the scene first. The motorcycle is on top of the bikers leg. No leaking fuel. No down power lines. Approach the scene. “Sir, are you OK?” Biker is speaking, breathing, cursing, and obviously injured and in pain. There is very little blood, but some. The biker tries to stand up. “Sir, stay down.” The biker moves to lie down on the pavement and the scouts slide the blanket under the injured head, just before it hits the pavement.

A scout blanket, like every part of your uniform, can be a useful first aid device. Some onlookers and the Rover help to lift the motorcycle safely from the leg and roll it off the road. The scouts direct vehicles, blocking the chance of any driver hitting the person laying on the ground.

An off-duty EMT runs into the scene and takes over first aid. The scouts continue directing traffic. Later, the fire company took over traffic control until the state and local police arrived. The Pathfinder stayed on the phone with 911 until after the scene was secured. The scout blanket was returned by the ambulance driver.

The scouts got back in their car and sat by the side of the road. There were tears. It was difficult, stressful, and traumatic. No one wants to see things like this, and no one can un-see them. It’s very likely that these scouts in practicing their aid were able to save a life, assist local first responders, and stop further harm from occurring.

The practice that these scouts had done to be prepared allowed them to act as a unit, in an appropriate way, with positive consequences. Being able to keep going even when things get hard is one of the most important things you’ll learn in scouts. This whole event occurred in about an hour, yet it is an hour frozen in time. The Rovers congratulated and thanked the Pathfinder scouts for their roles, participation, and resourcefulness.

As a scout, you follow the scout motto: “Be Prepared.” And if you learn to be prepared for many situations, you’ll see that it is much easier to give help to other people. The process of scout aid has three parts:

- **Step One** is the scout motto. “Be Prepared.”
- **Step Two** is the actual deed of rendering aid.
- **Step Three** is talking about what we have done—not in a boastful way, but

reporting the act, decompressing the stress of it, finding peace with your actions through a support network. Reviewing what could have been done better, and the emotion of the moment is essential. Holding onto these emotions can be very harmful.

As OSG scouts, we promise to render service to our country and to help other people at all times. But what does that mean, exactly? How can a scout be helpful? How does a scout render service to their country? Are they just words we say, or is there more to this promise than it first might seem? How can you, as you are, help your country?

Helping other people at all times sounds hard, but it isn't. The important part is being willing. As a scout, you are the kind of person who commits acts of kindness each day. You help your siblings with their homework. You do what you can. You are willing to help strangers and do the right thing, even when it is hard.



What skills do you have that you can use to help others? Most of us have some skills, but as scouts we work to develop more of those skills. Learning how to help others is not only an important part of being a good scout, but of being a good person.

How to Help

What else can you do to “render aid” for a friend? You can be a good listener. That means you encourage them to tell you when they feel sad, mad, or scared as well as happy, content, and excited. That you take their feelings into account and when they ask for help, you do what you can to help them. Sometimes, being a good friend means hearing when your friend has a problem that requires an adult to help and then helping to find the right adult. If you aren't sure who the right adult is, you can talk to your parent or caregiver, or another trusted adult so that they can help you help your friend.



On another occasion, a scout group knew that there was going to be a parade and decided to spend their scout meeting before the parade picking up litter along the parade route. They picked up several large bags of litter, which served the environment, the community, and the scouts themselves. The parade was part of a fundraiser to provide healthcare for musicians and artists. The scouts' work helped them to raise more money for the cause by decreasing the cost of the event. The participants in the parade and the onlookers were less likely to litter and appreciated the work that was done. In the report to the troop, the scouts noted that this was a great way to spend a scout meeting and wished that they could do it again. They did.

Being helpful to not only your family and friends, but also to your neighbors and community is an important part of being a good scout. While your Pathfinder troop will be doing community service projects, being of service doesn't have to wait until a special date or project. You can choose to shovel snow or rake leaves for a neighbor. Return a lost pet. Watch out for younger children on the playground and help them if they become lost. Remember that estimable acts build self-esteem, so by helping others you are learning about the kind of person you want to be.

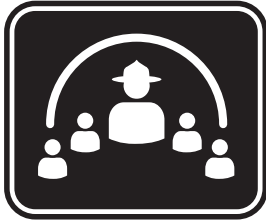
Whenever you go out in public, you represent the Outdoor Service Guides, whether or not you are in uniform. How you behave is how people will believe a scout behaves. Always ask yourself: "Is there something I can do to be useful?"

Cleaning up behind yourself, both at home and in public, is a good way to show courtesy and helpfulness. Just because someone gets paid to clean up after you at a restaurant or hotel, doesn't mean you can leave a big mess. Picking up behind yourself, your friends, and even cleaning up the trash strangers leave at the park, makes the world a better place.

A cheerful attitude and kindness transform the chore of service into opportunities to do good turns. You may never see a little old lady waiting for a scout to help them cross the street, but there will always be ways to help the people of your community and the environment, if you just watch for them. The "Be Prepared" motto means knowing what to do in a new situation. You're prepared to help.

End of Chapter Reflection Questions

- Why do you think having a good attitude is especially important when giving aid?
- What are three ways you can give scout aid in your daily life? Can you commit to doing one of them for a month?
- Why is it important to give aid in small ways and not just wait until a big emergency happens?



19

SCOUTS AND COMMUNITY

Fundraising

There may come a day when your group wants to have an adventure that you just can't afford. What is a scout to do? Have a fundraiser! What kind of fundraiser? That is 100% up to your troop, so have a brainstorm. Well, also make sure your Group scoutmaster approves.

How should you get started? Talk to your patrol about your goal, how much money you need to raise, and what skills you all have that you can use. Choosing a good fundraiser means you use what you have and do something you feel good about. If you can raise funds while also doing something to save the planet, help others, and have fun, all the better.

There are many ways scouts raise money. Some of them cost money upfront, but others don't. For example, you may need to buy supplies if you want to run a car wash or bake sale. Without upfront cash, however, you might consider putting up fliers advertising services to rake and bag leaves from neighborhood lawns. Before you start, be sure to figure out if your group can actually afford to do a fundraiser. If it costs too much upfront, it might not be worth it. Discuss your ideas with your adult leaders so they can guide in your fundraising.

Be aware that, no matter which kind of fund raiser you choose, people prefer to donate to a cause they understand. Hanging posters that say, “Give us money” will be far less effective than ones that say, “Help support our goal of taking a canoe trip!” Be specific. Part of good fundraising is sharing your story of who you are and how you will use the money, and the more specific the better.

During your fundraiser, remember that you are not only representing your troop, but you’re also trying to make people feel good about donating to it. Wear your uniform, be polite and always, always, *always* say “Thank you.”

An old scout tradition is to host a meal. You can sell tickets to attend your dinner or ask for donations to your group. If your group has access to a kitchen and a place people can sit to eat, you can make simple meals like a pancake breakfast or a spaghetti dinner. Grocery stores may even be willing to donate supplies to help you keep costs low. It never hurts to ask.

Scouts will have to plan to cook, serve and clean up the meal. Don’t forget to have plates, napkins, forks, and extras like pancake syrup for your event. You’ll also need to advertise it in advance so that you have plenty of people to feed.

It’s also fun to create performances or talent shows. If your group has talent, you can plan a performance night and sell tickets to the community. Sing, perform music, put on a play, or something else fun that others would like to attend. Find a school auditorium or another good place to hold your event and sell tickets both in advance and at the door. If your group is large enough, you may want to pair this with a dinner so you can sell tickets to “dinner and a show.”

Here’s another idea: Are you good at making things? You can sell things you make. Paracord bracelets, cookies, bird feeders, dog treats, candles, holiday ornaments, soap or lip balm are all options, but there are many more. You may even be able to upcycle items or use something you have on hand to make something new. Always think about what you already have before you purchase supplies.

Be sure to get an adult involved to help you with planning how to take orders, get supplies and where to sell your items. Will you sell them at a Farmer’s Market, or through a website? Do you know a store that will let you set up in front or have another way to reach people?

Silent auctions are another activity that can work alone or along with a dinner or other event you are hosting. Auctions can even be done online. You can auction things you’ve made, artwork, donations from local businesses, or experiences. Can your group provide babysitting? Holiday gift wrapping? Guided tours of local



ERIC GIACCHINO

The 45th Columbia River Pathfinders sell handmade items to raise funds for future troop adventures.

attractions? An evening of perfectly roasted marshmallows and s'mores? Experiences and events can sell just as well as things. Make sure you have a safety plan for any events you offer.

Do you live in a state where you can return glass bottles for cash? That is a great way to help the planet and raise money. Ask all your friends and neighbors to save bottles and set a schedule of when you'll collect them. Collect often so they don't pile up.

There are many other ways your group can fundraise. This is just a list of ideas to get you started. What you do is up to you.

How some troops got creative and became fundraising champs:

- The **45th Columbia River** scouts in Washington had several meetings to discuss how to raise money to attend a paintball and zip line camp. They decided to make products and sell them at a pop-up winter market. The market waived their normal \$25 table fee, provided the scouts would be there all day and not leave early. The troop had to develop a budget for materials and supplies, and spent several meetings broken into groups while creating their

merchandise. They made: paracord bracelets, small fire-starter bundles, potted plants, lavender eye pads, and candles. The troop sold most of those and made a couple hundred dollars after they paid for the materials.

- The **64th Brandywine** of Pennsylvania learned about bats. Then, they built several large wooden bat houses during a couple of meetings. They donated two to a local preserve but saved one to raffle at the local White Clay Creek Fest. The troop set up a free information booth at the festival, and shared information about bats, then sold raffle tickets for a drawing to win the box. They drew the winner at the end of the day. The proceeds of the raffle paid the troop back for the materials and left the scouts with a profit to put towards their adventures.
- The **183rd Tonkawa** of Texas had a Hike-A-Thon. Each Pathfinder asked friends and family to pledge to donate an amount of money to the group, based on how far they hiked. They could collect based on the length of time they hiked, distance, or just accept donations.
- You can even combine fundraising techniques. A few years ago, the Pathfinders of **5th Prospect Park** in Brooklyn added a raffle to their annual Pancake Breakfast fundraiser. They asked local businesses to donate goods and services and sold raffle tickets to patrons as they entered. This troop was able to almost double the amount of money raised.

Community Service

As scouts, we pledge to render service, but how do we actually do that? Usually, through community service projects that help people (a scout's duty is to be useful and help other people), animals (a scout is kind to animals), and the land where we live (a scout is thrifty and conserves resources where possible).

But first, what is your community? Community can mean many things. You are a member of many communities. Your family and your scout group are small communities. Your neighborhood and school are each a community. You are also a citizen of your town or city, state, the United States of America, and the world. Different service projects may focus on different community levels.

That's a lot to take in. Let's look at some specific community service projects, and which community group they serve. By looking at others' projects, you can begin to imagine how you would like for your group to get involved in reaching beyond yourself, to help others.

Scouts in Service

- The **7th Trailblazers** Pathfinders in Texas worked together to create a scouting-themed escape room to share with the Timberwolf scouts at the Texas Hullabaloo. They served their scouting community by creating a unique and fun set of activities to facilitate younger scouts. Helping other scouts enjoy scouting and learn skills is one way to serve your scouting community.
- The **5th Prospect Park** Pathfinders spent time raking the leaves in New York City's Prospect Park. Cleaning up the park made it more fun for not only their troop, but also for the entire neighborhood to use the park. Many groups clean up litter or hiking trails, to make their neighborhoods more pleasant.
- The **636th Mt. Tabor** Pathfinders of Portland, Oregon, volunteered at a city-wide bicycling event. A five-mile route through the city was shut down to car traffic, and everyone in the city was invited to ride their bikes along the route. Since cars had to be redirected, the scouts helped by directing traffic at two intersections with stop/slow signs. They handed out water to sweaty cyclists, and everyone had a blast.
- The **17th Black Bears** in Virginia made fleece blankets for refugees fleeing Syria. They were able to partner with an organization that was sending supplies to Greece and handing them out there. The troop worked together to cut and tie the blankets together and deliver them to the storage facility for the partnering organization. In this way, they were helping people who are part of our worldwide community.

Your group may choose to do something like the examples above or focus on other things that make your world a better place. You could assist at your local animal shelter or build homes for bees and other pollinators to place outside. You could build a Little Free Library® (like the 64th Brandywine in Pennsylvania) or donate books to your local children's hospital. Or you could take time to write to your lawmakers to ask for help, if you see a bigger way to help your community that goes beyond what your troop can do on its own.



5th Prospect Park Pathfinders help disassemble and prepare donated prosthetic limbs for reuse by amputees in developing countries.

As scouts, we serve our communities because we want the world to be a better place. You have the skills and abilities to make the world better, in big and little ways, so grab your troop and figure out what you can do to help.

How To Plan a Community Service Project

Planning a community service project can be simple or complicated. Either way, the first step is the same: start with agreeing with your group what you want to do. Talk about who in your community might most need help. When you have an idea of who you want to help, don't assume you already know what they need; instead, talk to them about the kinds of help they would find useful. From there you'll need to determine what supplies you'll need, and if you need to get permission from anyone—or example, if you want to clean up a park, your local parks department might want to know about it. Set a date. Then do your project. Let's walk through a few examples.

If your troop wants to do a simple service project, you might do a clean up of the park where you regularly meet. This project does not require any outside help. So, your group can set their time, place, and date to get together to do this. Make a list of supplies each scout should bring, such as gloves and trash bags. Send out a reminder to all parents and scouts about the date and time to meet, and then do your project.

For a more complex service project, you may wish to work with another organization or local authorities. Consider reaching out to organizations serving groups that have faced discrimination or are very different from your patrol.

Partnering with an organization that serves a group about which you know little can be an interesting way to understand more about your community, and lead to new and interesting opportunities to serve. While it is good to plan of what your group would like to do, it's also important to be flexible when you contact another organization about setting up your project. For example, if your troop wants to help at a soup kitchen, it's important to contact them ahead of time and see what kind of help they are looking for. Some organizations have strict age limits, are only open certain days, or only accept certain types of donations.

Some projects may have multiple steps. You may need to make something or gather donations before taking them to the donation site. Be sure to set a date to do each step. For example: make dog toys at your next Thursday troop meeting, and then take them to the animal shelter on Saturday. Arrive at the time they say your troop can have a tour. Or collect school supplies at a scout meeting, and then deliver them to the donation center on the right date. Create a checklist of each thing You'll need to do, so you don't miss anything.

If you have a great idea for a service project but aren't sure how to do it, talk to your scout leader. The more ways your group can participate in community service, the better. Your mom or dad might remember doing a lot of litter clean ups,

but your group can try something new every year. The opportunity to serve our communities is endless.

This community service prep list, based on the ideas in this chapter, can help you begin working on a solid plan:

1. Choose a Project

- What cause or issue are you passionate about? For example, is it helping people in your community without the quality of housing they need, protecting the environment, or supporting animal shelters?
- Can you think of specific project ideas related to your chosen cause? For instance, organizing a food drive, planting trees in a local park, or volunteering at an animal rescue center? Consider helping an organization that's already working on that cause; for example, by volunteering at a food bank.

2. Define the Project

- What specific goals do you want to achieve with your community service project? Is it providing a certain number of meals to those in need, cleaning up a specific area of your community, or raising awareness about an important social issue?
- Who will be the target audience of your project? Are there any specific individuals or groups in your community that could benefit from your efforts? How will you include them, or organizations that work with them, in deciding how your scout group can help?
- Is there a partner you can work with who already knows about how this issue affects your local community? How can you reach out to them and offer your help?

3. Plan and Organize

- What tasks need to be completed for your project? For example, if you're organizing a food drive, tasks might include setting up collection bins, promoting the drive, and delivering the donations to a local food bank.
- How can you divide the responsibilities within your scout group? Can different members take on different roles to share the work?

- What's a good date and time for this project that works for you, your partner, and the people you want to help?

4. Prepare and Gather Resources

- What materials or supplies will you need for your project? If you're organizing a cleanup event, for instance, you might need gloves, trash bags, and safety vests.
- How will you get the supplies you need? Will you reach out to local businesses for donations or ask for support from community organizations?

5. Raise Awareness

- How can you spread the word about your community service project? Who needs to know about it? How can you make sure all the scouts, leaders, and parents know about it enough in advance to make sure they can be there, and be prepared?
- Be sure to figure this out together with the partner you worked with to set up the project.

6. Make It Happen

- How will you ensure everyone in your scout group understands their roles and responsibilities during the project? Will you have regular team meetings or assign specific tasks to each member?
- How will you prioritize safety and teamwork while working on the project? Can you think of an example of a safety precaution you should take or a way to encourage and support each other during the project?

7. Reflect and Evaluate

- How will you determine the impact and outcomes of your project? Can you think of ways to measure success, such as counting the number of items collected, evaluating the feedback received, or observing the changes made in your community?
- What lessons did you learn from the project? Can you share an example of a challenge you faced and how you overcame it, or a positive experience that stood out to you?

8. Show Gratitude

- How will you show appreciation to volunteers, sponsors, or community members who supported your project? Can you think of specific ways to thank them, such as writing thank-you notes or organizing a small appreciation event?
- Remember, these questions are meant to provide examples and get your own thinking going when planning your community service project. Community service projects are about making a positive difference in the lives of others. Have fun, work together, and enjoy the rewarding experience of helping your community.

End of Chapter Reflection Questions

- How do you think community service is related to scout aid?
- What are some things that you might want to try with your scout group that might need some fundraising?



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THE FOUR PILLARS

The heart of the Pathfinder program is the four pillar awards. They represent achievement in one of our core areas, and they prepare you to embark on new adventures in our communities or in the backwoods.

The four pillar awards are **First Class**, **Torchbearer**, **Trailblazer**, and **Voyager**. You can earn each of these awards separately, and a scout who achieves any three of them is eligible to receive the highest award in Pathfinders, the Polaris Award.

- A **First Class** scout is one who develops some of the traditional scout skills laid out in the original program a century ago.
- A **Torchbearer** is focused on civics, leadership, and volunteering.
- A **Trailblazer** is focused on creativity, on exploring our shared human journey and sharing our stories through many different mediums.
- A **Voyager** specializes in a different kind of journey: that of personal self-discovery and self-improvement.

Which type of scout would you like to be? The good news is: You don't have to choose. You can be more than one. You can even be all four.

Each pillar is identified by a color: First Class is green, Torchbearer is red, Trailblazer is tan, and Voyager is blue. The four pillars insignia are stripes of the pillar's signature color, stitched with golden laurel leaves. The stripes are worn on the left

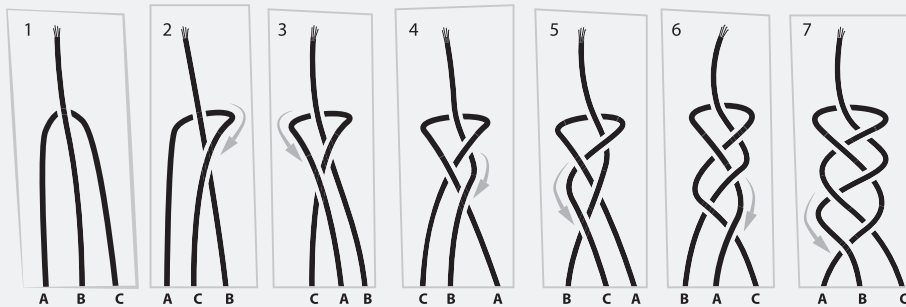


Braid a Simple Shoulder Cord

Measure a length of paracord that is three times the length you need around your upper arm/shoulder, and add an extra 12 inches. Lay your paracord out, tripling up with 3 inches to spare on each side.



At one end, begin your braid using the steps below.



Tighten the braid as you go along. Repeat steps 2-7 as many times as necessary to braid the entire length, tucking the last loose end into the loop to finish.



Loop your braid into a circle and tie ends together using a sheet bend. Don't forget to melt the ends to prevent fraying.

sleeve of your uniform, beneath your Second Class badge.

In the chapter describing special proficiency badges, you will find that each badge includes a colored band indicating which pillar it belongs to.

When you have earned a pillar, you can also wear a shoulder cord looped around your right arm, along the seam of your shirt sleeve. The shoulder cord is made from a length of paracord, braided and tied with a sheet bend. If your uniform shirt has an epaulette, slip the cord under before tying. If not, hold the cord in place with a safety pin on the top of your shoulder. You can also hold it in place with a safety pin at the bottom.

Other Pathfinders will recognize your accomplishments by the color of your cord and stripe.



FIRST CLASS

EARNED
EXAMINER & DATE

The First Class requirements are based upon the original First Class badge. At its core, the First Class badge carries the basics of the original scout program, teaching skills that have long formed the backbone of scouting around the world. It incorporates elements of each of the other three pillars and adds to them.

In honor of that long tradition, earning the First Class badge also brings with it a special bonus: a laurel patch that surrounds the Second Class badge on your left sleeve.

COMPLETED
EXAMINER & DATE

1 Complete **EITHER** of the following:

a Swim 50 yards.

b If swimming is inappropriate or dangerous to your health, instead earn **ONE** of the following special proficiency badges:

1 Astronomer

5 Naturalist

2 Camper

6 Observer

3 Healthy Living

7 Camp Engineer

4 Housewright

8 Ranger

2 Throw a lifeline and explain how it fits into the principles and risks of water recreation and water rescue. (See Chapter 12.)

3 Demonstrate correctly the following knots and lashings (see Chapter 4):

a Shear lashing

d Eye splice

b Round lashing

e Firefighter's chair

c Back splice

f Alpine butterfly

4 Estimate, without apparatus, within 25 percent error each side (see Chapter 16):

a Distance (e.g., How long is that trail?)

b Numbers (e.g., How many cows in that herd?)

c Height (e.g., How tall is that tree?)

CONTINUED...

5 Complete the First Class first aid tests. (See Chapter 12.)

a Discuss scene safety, specifically reviewing:

- 1** Hazards of traffic on a street or highway
- 2** Fire, both in a structure and forest fires
- 3** Hazards of water and ice rescues, and the meaning of "Reach, Throw, Row, Go"

b Show good working knowledge of how to perform an organized patient assessment by performing the following:

- 1** Explain the importance of an organized patient assessment in first aid.
- 2** Demonstrate how to perform such an assessment using the A-B-C-D-E methodology.
- 3** Explain the importance of a written patient care report. Know where you can get one if there's an emergency in a troop outing and show how to fill one out correctly.

c Explain the cause, signs, and symptoms, and demonstrate how to treat **EACH** of the conditions below:

- 1** Spinal injury
 - a** Explain under what circumstances you might suspect a patient has a spinal injury.
 - b** Explain special care taken with patients that have suspected or possible spinal injury, and why.
- 2** Head injuries
 - a** Explain how to check for head injuries.
 - b** Describe other possible signs of head injuries.
- 3** Serious bleeding
 - a** Explain why serious bleeding needs to be treated immediately.
 - b** Demonstrate direct pressure to manage serious bleeding.
 - c** Explain when and how to use a tourniquet. Describe how to use both a manufactured tourniquet and how to make one using a scout necker.
- 4** Seizures
 - a** Explain how you can help someone experiencing a seizure.
 - b** Explain how to determine if someone who experienced a seizure requires further medical attention.

CONTINUED...

- 5** Asthma, including helping someone with their inhaler
 - 6** Allergies and Anaphylaxis
 - a** Explain the difference between a simple allergic reaction and anaphylaxis.
 - b** Explain how and when to use an EpiPen®.
 - 7** Hypothermia and hyperthermia
 - a** Explain the different conditions and signs/symptoms of hypothermia and hyperthermia.
 - b** Demonstrate placing someone in a sleeping bag and active rewarming.
 - c** Demonstrate active cooling techniques.
 - d** Discuss when it's appropriate to administer food and water to an injured person.
 - 8** Shock
 - 9** Dizziness or fainting
 - 10** Eyes and tooth injuries
- d** Be able to explain the steps and demonstrate Hands-only CPR.
 - 1** Explain when to use Hands-only CPR, and what it is intended to help.
 - 2** Demonstrate Hands-only CPR at the correct beats per minute.
 - 3** Explain when to switch compression providers.
 - 4** Explain when to stop providing CPR.
 - e** Lay out your first aid kit. Explain how you chose the kit, or, if you put together the kit yourself, how you chose what went into the kit. Be able to explain under what circumstances and how to use any items in the kit.
 - f** Re-pass the Second Class first aid tests.

6 Demonstrate your cooking skills. (See Chapter 14.)

- a** Present the comprehensive meal plan you intend to prepare for your First Class Journey.
- b** Satisfactorily estimate the budget, create a shopping list of ingredients, and perform all the shopping for your meals.
- c** Explain the necessary utensils, cooking tools, stove, and fuel requirements.
- d** Demonstrate that you are prepared to pack and carry all of your equipment and ingredients during a rehearsal or test session.

CONTINUED..

7 Demonstrate your mapping abilities. (See Chapter 17.)

a Read and be able to use a topographical map.

b Draw an intelligible rough sketch map.

c Demonstrate proper use of a compass.

d Point out a cardinal direction by day and by night without the help of a compass.

8 Use a felling axe for felling or trimming light timber, or, if impractical, be able to log up a piece of timber and demonstrate the theory of felling a tree. (The term "felling axe" includes both three-quarter and half-size.) (See Chapter 15.)

9 Complete a First Class Journey. (See Appendix, page 523.)



TORCHBEARER

EARNED
EXAMINER & DATE

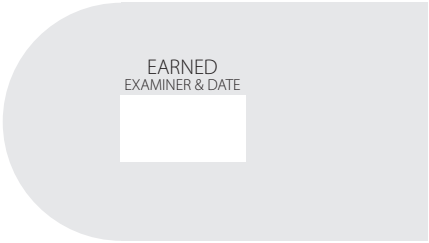
The Torchbearer badge is earned by demonstrating excellence in community service and civics.

Leadership is demonstrated not only in your patrol, but also in your community. A full understanding of how our system works is essential for you to be an effective participant. The scout who earns this award will be a valuable and productive member of their community.

	COMPLETED EXAMINER & DATE						
<p>1 Earn at least SIX special proficiency badges from the area of Civics and Community. These must include Advocate and Community Service.</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"><input type="checkbox"/> a Advocate</td> <td style="width: 50%;"><input type="checkbox"/> d _____</td> </tr> <tr> <td><input type="checkbox"/> b Community Service</td> <td><input type="checkbox"/> e _____</td> </tr> <tr> <td><input type="checkbox"/> c _____</td> <td><input type="checkbox"/> f _____</td> </tr> </table>	<input type="checkbox"/> a Advocate	<input type="checkbox"/> d _____	<input type="checkbox"/> b Community Service	<input type="checkbox"/> e _____	<input type="checkbox"/> c _____	<input type="checkbox"/> f _____	<div style="border: 1px solid black; width: 80px; height: 40px;"></div>
<input type="checkbox"/> a Advocate	<input type="checkbox"/> d _____						
<input type="checkbox"/> b Community Service	<input type="checkbox"/> e _____						
<input type="checkbox"/> c _____	<input type="checkbox"/> f _____						
<p>2 Earn at least FOUR senior special proficiency badges from Civics and Community. These must include Senior Advocate and Emergency Planner.</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"><input type="checkbox"/> a Senior Advocate</td> </tr> <tr> <td><input type="checkbox"/> b Emergency Planner</td> </tr> <tr> <td><input type="checkbox"/> c _____</td> </tr> <tr> <td><input type="checkbox"/> d _____</td> </tr> </table>	<input type="checkbox"/> a Senior Advocate	<input type="checkbox"/> b Emergency Planner	<input type="checkbox"/> c _____	<input type="checkbox"/> d _____	<div style="border: 1px solid black; width: 80px; height: 40px;"></div>		
<input type="checkbox"/> a Senior Advocate							
<input type="checkbox"/> b Emergency Planner							
<input type="checkbox"/> c _____							
<input type="checkbox"/> d _____							
<p>3 Participate in a Bronze Arrow Training (BAT) or similar leadership training seminar.</p>	<div style="border: 1px solid black; width: 80px; height: 40px;"></div>						
<p>4 Serve as patrol leader for a minimum of 6 months to the satisfaction of your Examiner.</p>	<div style="border: 1px solid black; width: 80px; height: 40px;"></div>						
<p>5 Research a social or political issue that is important to you. Write to one of your elected representatives—this may be local, statewide, or national—explaining your position and asking for them to take some action.</p>	<div style="border: 1px solid black; width: 80px; height: 40px;"></div>						
<p>6 Create a presentation for your troop or group about what your scouting experience has taught you about leadership and helping your community. The presentation should be a minimum length agreed beforehand with your Examiner and must include visual aids.</p>	<div style="border: 1px solid black; width: 80px; height: 40px;"></div>						



TRAILBLAZER



The Trailblazer badge is earned by demonstrating excellence in Creative Arts.

A Trailblazer must be able to tell a story through their art, be it a literal narrative or an evocative emotional exploration.

	COMPLETED EXAMINER & DATE
<p>1 Earn at least SIX special proficiency badges from the area of Creative Arts, which must include at least one performing arts badge and one crafting arts badge. Senior level badges may also be substituted in place of special proficiency badges.</p> <p><input type="checkbox"/> a _____ <input type="checkbox"/> d _____</p> <p><input type="checkbox"/> b _____ <input type="checkbox"/> e _____</p> <p><input type="checkbox"/> c _____ <input type="checkbox"/> f _____</p>	<div style="border: 1px solid black; width: 80px; height: 40px;"></div>
<p>2 Earn at least FOUR senior proficiency badges in Creative Arts, one of which must be Indigenous Art Appreciation.</p> <p><input type="checkbox"/> a Indigenous Art Appreciation</p> <p><input type="checkbox"/> b _____</p> <p><input type="checkbox"/> c _____</p> <p><input type="checkbox"/> d _____</p>	<div style="border: 1px solid black; width: 80px; height: 40px;"></div>
<p>3 Instruct a fellow scout in one of the disciplines covered in a Creative Arts special proficiency badge to the extent that they pass the tests and earn the badge themselves.</p>	<div style="border: 1px solid black; width: 80px; height: 40px;"></div>
<p>4 Create a special project chronicling your troop's history over a period of time of at least 6 months. This may be a documentary film, photo series, play, skit, dance, story, or any other creative medium. The length or scale of your project must be determined in consultation with your Examiner, but it must be extensive enough to do justice to your subject and tell your troop's story. Perform or present your project to your troop.</p>	<div style="border: 1px solid black; width: 80px; height: 40px;"></div>



EARNED
EXAMINER & DATE

The Voyager badge is earned by scouts who do exemplary work in the areas of career exploration, self-improvement, and self-discovery.

There are many kinds of journeys you will take as a Pathfinder; the journey towards being a well-rounded human is no less important than the journey through uncharted wilderness. The scout who earns this award has succeeded at exploring many ideas and trying many new things.

COMPLETED
EXAMINER & DATE

- 1 Earn at least **SIX** special proficiency badges from the area of Life Skills, at least one of which must be an outdoor-focused badge such as Naturalist or Forester and at least one of which must be an indoor-focused badge such as Housewright or Homemaker. Senior level badges may also be substituted in place of special proficiency badges.

- | | |
|----------------------------------|----------------------------------|
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| <input type="checkbox"/> c _____ | <input type="checkbox"/> f _____ |

- 2 Earn at least **THREE** senior special proficiency badges from the area of Life Skills.

- | |
|----------------------------------|
| <input type="checkbox"/> a _____ |
| <input type="checkbox"/> b _____ |
| <input type="checkbox"/> c _____ |

- 3 Instruct a fellow scout in one of the disciplines covered in a Life Skills special proficiency badge to the extent that they pass the tests and earn the badge themselves.

- 4 Give a presentation to your troop (or group) about something you learned while working on these badges and how you think it can be applied to life beyond just earning a badge. Have you found a hobby, career path or set of skills you plan to use long after your time as a Pathfinder is over? Explain. The presentation should be a minimum length agreed beforehand and must include visual aids.

Beyond Your First Pillar

A Senior Pathfinder may choose to explore additional pillar badges, senior special proficiency badges, special interest pins, and even more adventures.

Additional Pillar Badges

Demonstrating excellence in one pillar is an excellent start to your Senior Pathfinder journey, but we encourage you to explore the others. Additional stripes are layered beneath your first. If you choose to wear shoulder cords, you can loop multiples next to each other or braid them together into one cord.

If you complete the requirements for any three pillar badges, you are eligible for the Polaris Award (below), the highest level of accomplishment for a Pathfinder.

Senior Special Proficiency Badges

A Senior Pathfinder can pursue all senior special proficiency badges. That means a deeper dive into a subject you already know, or an opportunity to pursue something entirely new.

There are over 30 advanced badges to choose from. You can find the requirements and details in the special proficiency badges chapter.

Special Interest Pins

Some special proficiency badges are related on one another, and if you complete a set of these badges, you can wear a special interest pin. Do you really enjoy fishing? Collect all 3 special proficiency badges, and you earn a fish hook pin for your uniform. The details can be found in the special proficiency badges chapter.



The Polaris Award

The Polaris Award is the highest achievement that a scout can earn in our organization. The Polaris scout is one who knows oneself, has worked in their scouting experience to improve themselves and help others. A Polaris scout is a scout everyone is proud to know and who is an example to others, a beacon just as the North Star has guided travelers across our globe for millennia.

Obtaining the Polaris Award begins with completing any three of the four pillars. Next, you should submit a letter to national headquarters with a list of your achievements. List details of which badges, awards, and programs you completed to explain how you achieved each of the three pillars. You should write this in a way that you can see for yourself all the work you accomplished to obtain this award.

Following in the best traditions of the patrol method, you will hand this letter to your scoutmaster, who will convey it to the regional commissioner, who will in turn deliver it to the national headquarters. This will allow all levels of our organization to celebrate your accomplishment.

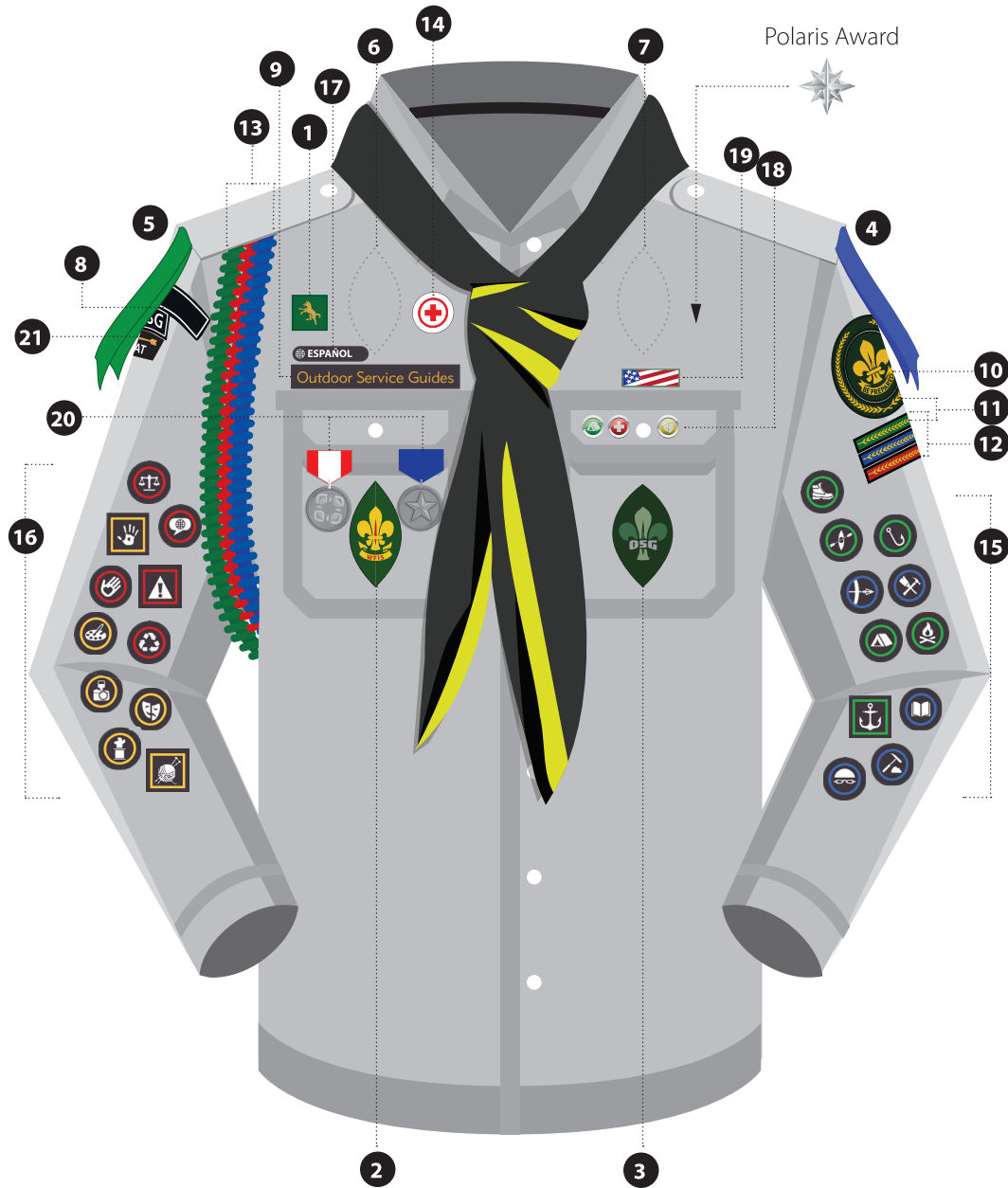
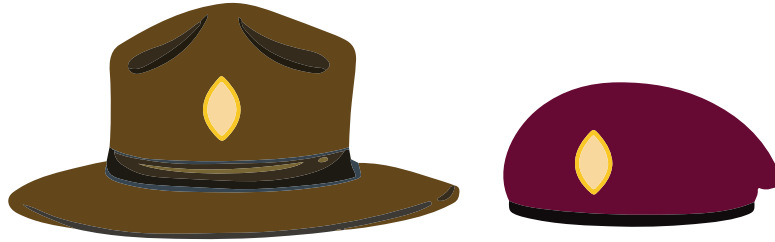
The Polaris Award has two components: a silver metal star pin and an optional silver-and-gold braided shoulder cord. The Polaris pin is worn above the left pocket your uniform. Just as the Timberwolves' Gold Leaping Wolf is worn on a scout's Pathfinder uniform shirt when they leap up, you may wear your Polaris pin on your Rover uniform. The Polaris cord replaces all other pillar cords, but you may continue to wear all the pillar stripes on your sleeve, so other scouts can know what pillars you earned on your way.



If you achieve all 4 pillars, you will receive a special gold compass rose disc for your Polaris pin. The compass rose signifies a scout who truly has a compass, a knowledge of all four cardinal aspects of life. With the help of the North Star, your remarkable skills and achievements will navigate you through the challenges and exigencies of life.

Uniform of a First Class Scout

- 1 Gold Leaping Wolf (earned as a Timberwolf)
- 2 WFIS badge
- 3 Tenderfoot badge
- 4 Patrol knot (color of patrol)
- 5 Patrol leadership knot (green for patrol leader, red for seconder)
- 6 Alternate location for WFIS badge
- 7 Alternate location for Tenderfoot
- 8 Group flash
- 9 OSG name strip
- 10 Second Class badge
- 11 First Class badge
- 12 Pillar awards
- 13 Pillar shoulder cords (optional)
- 14 First Aid special proficiency badge
- 15 Special proficiency badges: Outdoor Skills and Life Skills
- 16 Special proficiency badges: Civics and Community and Creative Arts
- 17 Interpreter badge language(s)
- 18 Special interest pins
- 19 World Scouting Award
- 20 Medals (Lifesaving Medal, Second Class; Medal Of Merit)
- 21 Training awards (BAT, SAT, etc.)





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SPECIAL PROFICIENCY BADGES

AS LONG AS THERE HAVE BEEN SCOUTS THERE HAVE BEEN BADGES. The Pathfinder program progression starts with Tenderfoot, continues to Second Class, then dives into special proficiency badges on the way to First Class. However, you may earn two special proficiency badges between Tenderfoot and Second Class. The skills learned while earning the rank of Second Class are important, so once you've obtained the rank of Second Class or turned 14 years old, you can earn as many special proficiency badges as you like.

These badges are divided into four different categories, also known as pillars, so you can search for ones that interest you. The categories are **Outdoor Skills**, **Civics and Community**, **Creative Arts**, and **Life Skills**. Each of these families has a signature color. Special proficiency badges are round, senior special proficiency badges are square. The First Aid badge is the only one with a white background, and is worn on the front of the uniform instead of the sleeve, so in an emergency situation you may quickly identify who has completed first aid training.

The well-rounded scout will earn badges from each section, but it is up to you which ones you want to earn. Make sure you take a look at the section titled **Special Interest Pins**, as those are another way to choose which badges you might want to do.

Don't see a badge in your favorite scouting activity? Use the **Design Your Own Badge** section to create the perfect badge.



How To Use This Section

Use the following pages as a workbook to record your badge progress. Your Examiner will initial and date each individual requirement as you complete it, and will signoff at the top of the page when you have completed all the requirements and earned the badge. Badges, and their requirements, can be completed in any order, unless indicated otherwise.



**Your Examiner should initial and date
as you complete requirements**

On these pages, badges are organized alphabetically in their category, with senior special proficiency badges grouped at the end.

Each special proficiency badge starts at the top of a page, with an image of the badge, the category, and the name of the badge. A list of requirements follows. If there are multiple choices in a requirement, you can use the checkboxes to record your selections.



Checkboxes can be squares or circles

Several senior badges have prerequisites—other badges you must earn in advance. The First Aid and Lifesaver proficiency badges require recertification.

Glossary

e.g.: *Exempli gratia* (Latin), meaning “for example.”

Examiner: Your scoutmaster, assistant scoutmaster, senior patrol leader, or other expert approved by your scoutmaster.

PREREQ: A prerequisite; a requirement that must be completed first.



Outdoor Skills

Part of being a scout is learning the skills of camping, cooking over a fire, and hiking. The badges in this section will help you learn skills for outdoor survival as well as appreciation of our natural world.

Outdoor Skills special proficiency badges have a green circle and are associated with the First Class pillar of the Pathfinder program. A First Class scout is one who develops proficiency in some of the traditional skills laid out in the original scouting program over a century ago. Fishing, stargazing, cooking, kayaking, backpacking: they are all yours to try.

Outdoor Skills badges are worn on the left sleeve of your uniform.

Be sure to look at the progression of camping badges, as those will help you build your skills for your First Class Journey.

Outdoor Skills badges include the following:

- Angler
- Astronomer
- Backpacker
- Bicycle Camper
- Birder
- Camp Engineer
- Camper
- Canoeist
- Cook
- Cyclist
- Flower Finder
- Hiker
- Kayaker
- Mariner
- Naturalist
- Nautical Camper
- Observer
- Orienteer or Navigator
- Ranger
- Rock Climber



OUTDOOR SKILLS
ANGLER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Be able to explain safety considerations you need to keep in mind when fishing in a lake or river in your area. What animals may be dangerous to you (or you to them), and how do you handle them? What kinds of dangers in the landscape do you need to be aware of (such as rock embankments, sand bars, crumbling banks, etc.)?

2 Explain and demonstrate how to store and transport your fishing tools and accessories safely and securely.

3 Explain the food safety considerations you need to make when fishing. For example, how do you store bait safely, and how do you store your catch safely so you can eat it later? Explain how to clean a fish.

4 Know and be able to explain the rules and regulations in your local area that govern fishing seasons, catch limits, and locations you are permitted to fish. Know how to obtain a fishing license in your area, if required.

5 Be able to recognize the **FIVE** most common game fish in the lakes or rivers in your area. Describe the characteristics of each, including the following:

a Appearance

d Typical depth

b Spawning season

e Most appropriate bait

c Acceptable catch size

6 Be able to describe characteristics of ideal fishing spots for each of the five most common game fish in your area. What features of the terrain or water indicate good possible habitats for the fish?

7 Be able to recognize the **FOUR** different types of reels, and explain the uses and considerations for each one.

a Spincast

c Baitcasting

b Spinning

d Fly

8 Demonstrate how to set up a fishing rod, line, and rig for the five most common types of fish in your area. (Note that no specific rod or reel is required here. Use what you have available.)

9 Demonstrate how to cast and reel in your catch with your rod. Explain common strategies for how to fight with your catch if it is trying to run or jump.

CONTINUED...

10 Demonstrate how to land a fish. Explain the consideration and techniques or demonstrate that you can land different sized fish at different elevations (level with the water, from a dock, from a boat, and from a raised shoreline). Explain when and how to use a landing net.

11 Demonstrate simple repairs to a rod (e.g., whipping a broken rod, whipping on guide rings, replacing the tip top).

12 Explain what to look for when inspecting your fishing line and explain what would indicate that it needs to be replaced. Demonstrate how to re-spool the fishing line on your reel.

13 Demonstrate how to remove and replace the reel on your rod.

14 Choose **ONE** of the five most common game fish in your area and make a plan to catch some examples. For your Examiner, specify what fish you intend to catch, where you plan to go fishing, and what kind of bait you will use.

15 Over the course of **THREE** or more outings, catch at least **SIX** of your target fish. You may not count more than two fish from any single outing as part of your goal.

16 For each catch, take a picture, and document what bait and rod you used, your location, and your method for landing the fish.



OUTDOOR SKILLS
ASTRONOMER

EARNED
EXAMINER & DATE

	COMPLETED EXAMINER & DATE
<p>1 Explain the dangers of eye damage from looking at the sun and how to safely view the sun and objects near the sun.</p>	<div style="border: 1px solid black; width: 100%; height: 30px;"></div>
<p>2 Demonstrate with diagrams, drawings, or models a good general knowledge of the nature of the sun, moon, stars, and planets. Include their relative sizes, their apparent movements, and the cause of eclipses.</p>	<div style="border: 1px solid black; width: 100%; height: 30px;"></div>
<p>3 Be able to point out and name the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> a The Big Dipper <input type="checkbox"/> b The Little Dipper <input type="checkbox"/> c Cassiopeia <input type="checkbox"/> d Orion (if visible) <input type="checkbox"/> e Polaris <input type="checkbox"/> f Two bright stars other than Polaris <input type="checkbox"/> g Any planets visible to the eye at the time of the test 	<div style="border: 1px solid black; width: 100%; height: 30px;"></div>
<p>4 Show how to find Polaris using the Big Dipper and how to use the stars to find north when Polaris is obscured.</p>	<div style="border: 1px solid black; width: 100%; height: 30px;"></div>
<p>5 Explain how to use the position of the sun to find north in the daytime.</p>	<div style="border: 1px solid black; width: 100%; height: 30px;"></div>
<p>6 Explain what factors, including light pollution and air pollution, affect viewing objects in the night sky.</p>	<div style="border: 1px solid black; width: 100%; height: 30px;"></div>
<p>7 Explain the parts of a telescope or binoculars and their use in stargazing.</p>	<div style="border: 1px solid black; width: 100%; height: 30px;"></div>



OUTDOOR SKILLS BACKPACKER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- 1 Discuss with your Examiner what additional safety precautions scouts need to take for backpacking trips and other long journeys, including an understanding of the following:
 - a The risks specific to backpacking
 - b The importance of making a safety plan for a trip
 - c The necessity of sharing your itinerary and travel plans with adults who will not be on the trip
- 2 Explain the contents of a first aid kit needed for these ventures. Be prepared to justify your choices.
- 3 Explain how to apply "Leave No Trace" principles to backpacking and the rules and regulations for backpacking and wilderness camping in your area.
- 4 Demonstrate methods of packing and carrying a complete hiking kit for a 24-hour hike. Your kit should not weigh more than 20% of your body weight, including the food and water. Sharing of equipment within a patrol is encouraged. Be prepared to justify your choice of gear.
- 5 Take part in **THREE** overnight hikes, carrying your gear and sleeping out. Two hikes should include 1 night of camping each, and the third hike should include 2 nights camping out. Your scoutmaster may work with you to identify alternative lodging if camping out is not possible. Likewise, while the scoutmaster can set specific distances based on your physical abilities, hikes should be challenging. For example, the hikes with one overnight might be set at 10 miles, while the hike with two overnight outings may be as many as 20-30 miles.
- 6 Plan a simple exploration project (e.g., mapping all trails in a local park) and submit it to the Examiner for approval. Carry it out alone or with another Pathfinder to the Examiner's satisfaction.
- 7 Using only map and compass, complete a 3-mile journey with another Pathfinder, changing compass bearings multiple times. An approved orienteering course of sufficient size would meet this requirement.
- 8 From a map, select **THREE** trails of 8 miles where a good backpacking campsite should be possible. Give your reasons for these choices.

CONTINUED...

.....
9 Make an article of backpacking gear, such as a tent, lightweight tarp, sleeping bag, quilt, campfire blanket, rucksack, or stuff sack.

.....
10 Show knowledge of personal hygiene while backpacking, including latrine matters.

.....



OUTDOOR SKILLS

BICYCLE CAMPER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 *PREREQ:* Have earned the **Cyclist** badge.

2 Know the gear needed for a camping trip by bicycle and how it is different from that needed for other camping trips or shorter bicycle journeys.

3 Demonstrate the ability to pack your bike for a bike camping trip.

4 Learn about bike camping and the options in your area. Discuss with your Examiner the considerations for route selection and camping site selection when on a multiple-day bicycle tour.

5 Be able to find on an appropriate map the trails, campsites, and other features you will need for your journey.

6 Camp 2 nights as part of a bicycle camping trip. These nights may be part of a single trip, or two separate trips, and may be taken with your patrol.

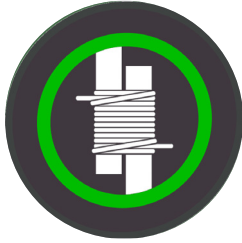


OUTDOOR SKILLS BIRDER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|---|---|
| <p>1 Make a list of 20 wild birds personally observed and identified in the open, and show field notes, including (at minimum):</p> <p><input type="checkbox"/> a Date seen <input type="checkbox"/> d Nesting habits, if known</p> <p><input type="checkbox"/> b Markings <input type="checkbox"/> e Migration, if any</p> <p><input type="checkbox"/> c Food habits</p> | <div style="border: 1px solid black; width: 100%; height: 40px;"></div> |
| <p>2 Name FIVE birds that eat rats and mice.</p> | <div style="border: 1px solid black; width: 100%; height: 40px;"></div> |
| <p>3 Make a list of 10 birds valuable to farmers and fruit growers, either by their consumption of crop-damaging insects or as plant pollinators.</p> | <div style="border: 1px solid black; width: 100%; height: 40px;"></div> |
| <p>4 Tell what the Audubon Society is and how it endeavors to protect birds.</p> | <div style="border: 1px solid black; width: 100%; height: 40px;"></div> |
| <p>5 Give the name and location of TWO bird refuges, explain the reason(s) for their establishment, and identify the birds they protect.</p> | <div style="border: 1px solid black; width: 100%; height: 40px;"></div> |
| <p>6 List TWO endangered birds in your area, the reason for their endangered status, and describe the practical impact of their protected status on local human activity.</p> | <div style="border: 1px solid black; width: 100%; height: 40px;"></div> |
| <p>7 Tell methods to attract birds in winter and summer.</p> | <div style="border: 1px solid black; width: 100%; height: 40px;"></div> |



OUTDOOR SKILLS CAMP ENGINEER

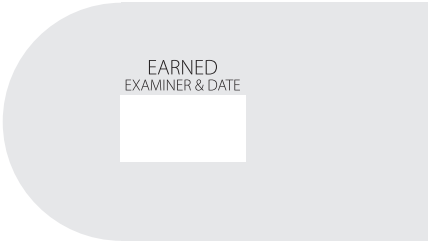
EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | | | | | | | | | | | |
|---|---|---|---|--|--|--|--|---|--|---|--|
| <p>1 Explain basic rules of safety when undertaking a pioneering project.</p> | | | | | | | | | | | |
| <p>2 Describe the content and tools of a basic pioneering kit.</p> | | | | | | | | | | | |
| <p>3 Demonstrate and describe pioneering uses for EACH of the following:</p> <p><input type="checkbox"/> a A Spanish windlass for anchoring</p> <p><input type="checkbox"/> b Two types of holdfast/anchoring systems for different types of soil</p> <p><input type="checkbox"/> c A sailmaker's whipping</p> <p><input type="checkbox"/> d A long splice</p> | | | | | | | | | | | |
| <p>4 Pass or re-pass the axe work test in the First Class badge (Requirement 8).</p> | | | | | | | | | | | |
| <p>5 Demonstrate FOUR of the following knots, and explain their uses in pioneering:</p> <table border="0" style="width: 100%;"> <tr> <td><input type="checkbox"/> a Masthead (jury) knot</td> <td><input type="checkbox"/> f Prusik knot</td> </tr> <tr> <td><input type="checkbox"/> b Double sheet bend</td> <td><input type="checkbox"/> g Firefighter's chair knot</td> </tr> <tr> <td><input type="checkbox"/> c Alpine butterfly</td> <td><input type="checkbox"/> h Draw hitch</td> </tr> <tr> <td><input type="checkbox"/> d Carrick bend</td> <td><input type="checkbox"/> i Trucker's hitch</td> </tr> <tr> <td><input type="checkbox"/> e Bowline on a bight</td> <td><input type="checkbox"/> j Three strand Turk's head woggle</td> </tr> </table> | <input type="checkbox"/> a Masthead (jury) knot | <input type="checkbox"/> f Prusik knot | <input type="checkbox"/> b Double sheet bend | <input type="checkbox"/> g Firefighter's chair knot | <input type="checkbox"/> c Alpine butterfly | <input type="checkbox"/> h Draw hitch | <input type="checkbox"/> d Carrick bend | <input type="checkbox"/> i Trucker's hitch | <input type="checkbox"/> e Bowline on a bight | <input type="checkbox"/> j Three strand Turk's head woggle | |
| <input type="checkbox"/> a Masthead (jury) knot | <input type="checkbox"/> f Prusik knot | | | | | | | | | | |
| <input type="checkbox"/> b Double sheet bend | <input type="checkbox"/> g Firefighter's chair knot | | | | | | | | | | |
| <input type="checkbox"/> c Alpine butterfly | <input type="checkbox"/> h Draw hitch | | | | | | | | | | |
| <input type="checkbox"/> d Carrick bend | <input type="checkbox"/> i Trucker's hitch | | | | | | | | | | |
| <input type="checkbox"/> e Bowline on a bight | <input type="checkbox"/> j Three strand Turk's head woggle | | | | | | | | | | |
| <p>6 Supervise the construction of either a simple bridge of no more than 13 feet or a tower no more than 10 feet in height. Demonstrate proper safety techniques for both.</p> | | | | | | | | | | | |
| <p>7 Construct a free-standing flagpole from scout staves using sheer end-to-end lashings.</p> | | | | | | | | | | | |



OUTDOOR SKILLS
CAMPER



	COMPLETED EXAMINER & DATE
<p>1 Know the normal requirements for the following:</p> <p><input type="checkbox"/> a A personal kit list for weekend camp</p> <p><input type="checkbox"/> b A personal kit list for a week-long camp</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>2 Demonstrate knowledge of layering for personal clothing, including typical layers required for both an autumn and winter campout.</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>3 Demonstrate knowledge of appropriate clothing for hot-weather outings.</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>4 Demonstrate the packing of your personal kit in a backpack, rucksack, or kitbag.</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>5 Have knowledge of "Leave No Trace" camping standards.</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>6 Make and show the following knots in use:</p> <p><input type="checkbox"/> a Midshipman's hitch</p> <p><input type="checkbox"/> b Double sheet bend</p> <p><input type="checkbox"/> c Figure-of-eight</p> <p><input type="checkbox"/> d Bowline on a bight</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>7 Demonstrate the ability to pitch and strike a tent. Pitch the tent for storm conditions. Explain and demonstrate basic care of a tent between outings. Show that you can carry out simple tent repairs, including seam-sealing and patching.</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>8 Show knowledge of methods of waste disposal, dishwashing, and hygiene at camp.</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>9 While living in camp, cook THREE meals and provide all snacks for yourself during a period of 12-24 hours to the satisfaction of the Examiner. While in camp, you must make satisfactory arrangements for storing food and disposal of garbage.</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>10 Camp with your troop or patrol for a total of 6 nights after being awarded Tenderfoot.</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>



OUTDOOR SKILLS
CANOEIST

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1	Explain the basic tenets of canoe safety and special safety equipment brought for a canoe journey of any duration.	
2	Identify the parts of a canoe and paddle, including (but not limited to) the following:	
<input type="checkbox"/> a	Bow	<input type="checkbox"/> e Painter
<input type="checkbox"/> b	Stern	<input type="checkbox"/> f Grip shaft
<input type="checkbox"/> c	Thwarts	<input type="checkbox"/> g Throat
<input type="checkbox"/> d	Gunwale	<input type="checkbox"/> h Blade
3	Be able to swim 50 yards in clothing (shirt, shorts, and socks). Explain how to handle yourself if you find yourself in either still or moving water.	
4	Demonstrate the correct way to use a throw bag and explain the common uses.	
5	Explain how to maintain a canoe in good condition.	
6	Demonstrate how to retrieve a swamped canoe.	
7	Demonstrate a canoe-over-canoe, or T-rescue.	
8	Demonstrate the following strokes:	
<input type="checkbox"/> a	J-stroke	
<input type="checkbox"/> b	Draw	
<input type="checkbox"/> c	Arc	
9	Demonstrate the safe and secure method of packing a canoe for transport to a put-in site.	
10	Show skills in paddling a canoe with a single paddle at bow, stern, and amidships. Know the precautions to take in rough water and have knowledge of paddles.	

CONTINUED ...

.....
11 Demonstrate the ability to climb in and out of an empty canoe in water at least 6 feet deep.

.....
12 Know how to portage a canoe.

.....
13 Know how to paddle a canoe to shore in case of loss of paddle, and, in the event of upsetting, the best methods of keeping afloat.

.....
14 Take at least **FIVE** journeys in a canoe, and produce a log of those trips for your Examiner, including route taken, date and time of start and end, weather conditions during the journey, important landmarks or water features, and challenges encountered during the trip.
.....



OUTDOOR SKILLS

COOK

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Explain the basics of camp kitchen safety, including common injuries and how to treat them and what equipment and materials should be on hand for a safe camp kitchen.

2 Assemble a properly equipped camp kitchen for your patrol, or explain the components to include in a properly equipped camp kitchen and why each item is important.

3 Know how to store provisions in a hygienic manner, and show that you can cook satisfactorily for a patrol in camp for a complete weekend.

4 Be able to explain what constitutes a balanced meal.

5 Draw up **TWO** three-course menus for a six-person patrol. It is not required that all courses are cooked. Prepare a shopping list, including quantities, based on the menus.

6 Explain and understand **THREE** other methods of cooking, such as the following:

a Reflector or solar oven

d Fire roasting

b Dutch oven

e Pickling

c Pit BBQ

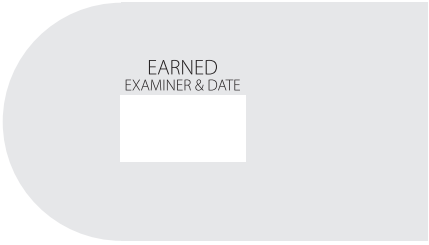
f Open fire

7 Using a lightweight stove, cook a balanced three-course meal (which may be breakfast). Make coffee, tea, or hot chocolate.

8 Cook a two-course foil dinner for at least **TWO** people.



OUTDOOR SKILLS CYCLIST



COMPLETED
EXAMINER & DATE

<p>1 Demonstrate that you know the following:</p> <ul style="list-style-type: none"><input type="checkbox"/> a Highway code<input type="checkbox"/> b Traffic signals<input type="checkbox"/> c Hand signals<input type="checkbox"/> d The correct lights to have on your bicycle	<input type="text"/>
<p>2 Demonstrate understanding of local requirements and when to use common safety equipment and clothing, such as helmet, reflective clothing, or reflectors.</p>	<input type="text"/>
<p>3 Show the repair kit you bring on bike rides and explain the reasons for each item selected. Include a discussion of tools or items considered for the kit but left out.</p>	<input type="text"/>
<p>4 Demonstrate satisfactory use of a bicycle for at least 6 months. Show that the bicycle is properly equipped and in good working order.</p>	<input type="text"/>
<p>5 Demonstrate effective, simple repairs, which may include the following (at the discretion of the Examiner):</p> <ul style="list-style-type: none"><input type="checkbox"/> a Change tire and tube<input type="checkbox"/> b Adjust caliper brakes<input type="checkbox"/> c True a wheel	<input type="text"/>
<p>6 Perform advanced maintenance, including the following:</p> <ul style="list-style-type: none"><input type="checkbox"/> a Repair a puncture.<input type="checkbox"/> b Replace a brake.<input type="checkbox"/> c Show how to repair or replace a chain.<input type="checkbox"/> d Show how to adjust tension on a derailleur.	<input type="text"/>



OUTDOOR SKILLS

FLOWER FINDER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Know several toxins naturally occurring in plants in your area, such as the following:

a Poison ivy

f Mushrooms

b Poison oak

g Digitalis

c Poison sumac

h Foxglove

d Jimsonweed

i Daffodil

e Pokeweed

j Nightshade

2 Make a collection of 25 kinds of wildflowers, native plants, and ferns, and correctly name them. In place of collecting plants, it is permissible to substitute 25 photographs or colored drawings.

3 Know **THREE** kinds of ferns that grow in your region.

4 Name and describe 20 cultivated plants in your locality.

5 Be able to recognize and identify 10 weeds.

6 Name **FIVE** trees (in this country) which produce edible nuts.

7 Know how the flowers of trees differ from each other and other flowers.

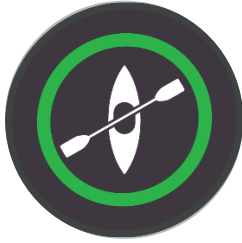
8 Be able to identify **THREE** kinds of flowering tree.



OUTDOOR SKILLS
HIKER

EARNED
EXAMINER & DATE

	COMPLETED EXAMINER & DATE
1 Explain how to apply "Leave No Trace" principles to hiking.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
2 Explain the contents of a first aid kit needed for hiking—both with a buddy and with your patrol. Be prepared to justify your choices.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
3 Show knowledge of personal hygiene and care of the feet and footwear.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
4 Explain the precautions you should take while hiking in known bear country.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
5 Demonstrate methods of packing and carrying a complete hiking kit for a day hike, including what you might require if you unexpectedly needed to spend a night outdoors. Sharing of equipment within a patrol is encouraged. Be prepared to justify your choice of gear.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
6 Take part in at least SIX single-day hikes, reaching a cumulative distance of at least 40 miles (or an appropriate distance agreed with your Examiner). Provide a log of your trips to your Examiner, noting trail conditions and markings, deviations from the planned route, good water sources, and wildlife and seasonal flora observed.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
7 On a map depicting an area unfamiliar to you, select a route for a 15-mile hike. Use a hiking map that includes contour lines for elevation and will allow you to take compass bearings. Give your reasons for your choice of route.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
8 Make a scout staff to a level of completion acceptable to the Examiner. If a scout has already made a staff that satisfies the Examiner, it is not necessary to create a new one.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>



OUTDOOR SKILLS

KAYAKER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Know the different safety precautions for kayaking in the following locations:

- a** On a lake
- b** On a river
- c** On white water
- d** In the ocean

2 Know the difference between sit-on-top and sit-inside kayaks and be able to state the advantages of each.

3 Know how to turn, paddle, and manipulate a double kayak, and take it on a 1/2-mile journey with another scout.

4 Know how to turn, paddle, and manipulate a single kayak, and take it on a journey of 1 mile with your patrol.

5 Demonstrate ability to launch and dock a kayak, getting in and out of it appropriately.

6 Take at least **FIVE** journeys in a kayak of your choice, and produce a log of those trips for your Examiner. Include route taken, date and time of start and end, weather conditions during the journey, important landmarks or water features, and challenges encountered during the trip.



OUTDOOR SKILLS MARINER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|--|----------------------|
| <p>1 Know the rules for personal flotation devices and any other required safety equipment for small watercraft in your area.</p> | <input type="text"/> |
| <p>2 Know the elementary rules of the sea for both steamships and sailing ships, as well as any local rules for small watercraft.</p> | <input type="text"/> |
| <p>3 Understand the boating challenges typical of your local waterways.</p> | <input type="text"/> |
| <p>4 Identify at least SIX types of boats, and name the various parts of a boat by pointing them out either on actual boats or unlabeled drawings or diagrams.</p> | <input type="text"/> |
| <p>5 Demonstrate the ability to throw a line in the following situations:</p> <p><input type="checkbox"/> a From shore to a boat</p> <p><input type="checkbox"/> b From a boat to a swimmer</p> <p><input type="checkbox"/> c From boat to boat</p> | <input type="text"/> |
| <p>6 Use the following knots properly:</p> <p><input type="checkbox"/> a Cleat hitch</p> <p><input type="checkbox"/> b Rolling hitch</p> <p><input type="checkbox"/> c Anchor or fisherman's bend</p> | <input type="text"/> |
| <p>7 Take charge of a boat, and demonstrate the following:</p> <p><input type="checkbox"/> a Manage a rowboat solo, including a demonstration of sculling (use of both oars).</p> <p><input type="checkbox"/> b Navigate a boat alongside a landing stage and secure it.</p> <p><input type="checkbox"/> c Tow and be towed.</p> <p><input type="checkbox"/> d Anchor a boat.</p> | <input type="text"/> |
| <p>8 Take at least FIVE journeys in a boat of your choice and produce a log of those trips for your Examiner. Include route taken, date and time of start and end, weather conditions during the journey, important landmarks or water features, and challenges encountered during the trip.</p> | <input type="text"/> |



OUTDOOR SKILLS NATURALIST

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|--|----------------------|
| <p>1 Explain to your Examiner what a naturalist is.</p> | <input type="text"/> |
| <p>2 Over a time period agreed upon with your Examiner, keep a nature diary, illustrated with sketches of the animals, birds, trees, plants, insects, or other natural phenomena that you observe. Include the date and location of each item you observed.</p> | <input type="text"/> |
| <p>3 Be able to identify the common poisonous plants in your region, and explain what you look for to positively identify them.</p> | <input type="text"/> |
| <p>4 Identify what kind of biome you live in, and explain the types of plants and animals that live in your biome with you.</p> | <input type="text"/> |
| <p>5 Identify, without use of a guide, THREE or more non-native species for your area. Explain whether any of those non-native species are considered invasive.</p> | <input type="text"/> |
| <p>6 Do TWO or more of the following:</p> <p><input type="checkbox"/> a Build a plant press, and create a collection of at least 20 samples.</p> <p><input type="checkbox"/> b Make a collection of leaves from 15 different trees, and name these correctly and identify them in the field.</p> <p><input type="checkbox"/> c Make colored drawings of 15 flowers, ferns, or grasses.</p> <p><input type="checkbox"/> d Create a collection of 15 different rock samples in your region, and identify the type of each rock and how it was created.</p> <p><input type="checkbox"/> e Observe and identify 10 or more stars/constellations by name.</p> <p><input type="checkbox"/> f Create plaster casts or sketches of 10 or more animal footprints</p> <p><input type="checkbox"/> g Create a terrarium.</p> | <input type="text"/> |
| <p>7 Describe the following in your own words and from your own observations:</p> <p><input type="checkbox"/> a The birds that migrate through your area</p> <p><input type="checkbox"/> b The first flowering plants in your area and when they begin to flower</p> <p><input type="checkbox"/> c How to use a stick and the sun to determine the cardinal directions</p> | <input type="text"/> |
| <p>8 Find a project in your area that you can participate in as a "citizen scientist." Explain how you participated and what you learned.</p> | <input type="text"/> |



OUTDOOR SKILLS
NAUTICAL CAMPER

EARNED
EXAMINER & DATE

	COMPLETED EXAMINER & DATE
<p>1 <i>PREREQ:</i> Have earned at least one of the following proficiency badges: Canoeist, Kayaker, or Mariner.</p>	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>
<p>2 Know the gear needed for a camping trip by boat and how it is different from that needed for other camping trips or shorter water journeys.</p>	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>
<p>3 Be able to read water charts, including charts for lakes, rivers, and the ocean.</p>	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>
<p>4 Learn about water camping options in your area and how to use a map to find designated or appropriate campsites.</p>	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>
<p>5 Demonstrate the ability to load a vessel for camping with appropriate load distribution.</p>	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>
<p>6 Demonstrate the ability to both board and dock your vessel with gear while camping. Pack your gear into your craft after camping for the night. This may be done with a partner in your patrol.</p>	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>
<p>7 Camp 6 nights as part of trips that includes a significant distance travelled by water. These nights maybe part of a single trip, or separate trips taken with your patrol.</p>	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>



OUTDOOR SKILLS OBSERVER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- 1** Demonstrate your ability to move quietly through a landscape to allow for the observation of all around you, taking into consideration winds, shadows, background, and possible camouflage, during at least **ONE** of the following conditions:

a By day

- 1** Cross ½ mile of open country to discreetly approach an observer in a known location.
- 2** Camouflage yourself against three different backgrounds, if possible, under varying weather conditions.

b By night

- 1** Approach an observer, unseen and unheard, within a reasonable distance, according to conditions at the time of the test.
- 2** Locate and pass between two observers stationed a reasonable distance apart, according to conditions at the time of the test.

- 2** Give proof of having observed and studied at least **FOUR** wild birds or animals in the outdoors by describing the results of your observations or by producing sketches or photos you made.

- 3** Make at least **THREE** sketches or casts of the tracks of animals. Make notes on which animals you believe made the tracks and what they might have been doing when the tracks were left.



OUTDOOR SKILLS

ORIENTEER OR NAVIGATOR

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Do the following:

- a Explain how a compass works.
- b Describe the features of an orienteering compass.
- c In the field, show how to take a compass bearing and follow it.

2 Explain how a topographic map shows terrain features. Be able to point out and name **FIVE** terrain features on a map and in the field.

3 Understand common map symbols and scales for various types of maps, and be able to point out and name 10 symbols on a topographic map.

4 On a topographic map with magnetic north-south lines, show the following:

- a How to measure distances using an orienteering compass
- b How to orient a map using a compass

5 Explain the meaning of declination and why you must consider declination when using map and compass together.

6 Determine your walking and running pace on a 100-yard course. Explain the importance of understanding your pace and pace counting in orienteering.

7 Take part in a cross country orienteering event with your troop or patrol. After the event, write a report including the following:

- a A copy of the master map and control description sheet
- b A copy of the route you took on the course
- c A discussion of how you could improve your time between control points
- d A reflection on what else you could do to improve



OUTDOOR SKILLS RANGER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|---|---|
| <p>1 Satisfy your Examiner that you understand the seven priorities of wilderness survival.</p> <p><input type="checkbox"/> a STOP (Stop, Think, Observe, Plan) <input type="checkbox"/> e Signal for help.</p> <p><input type="checkbox"/> b Provide first aid. <input type="checkbox"/> f Drink water.</p> <p><input type="checkbox"/> c Seek shelter. <input type="checkbox"/> g Don't worry about food.</p> <p><input type="checkbox"/> d Build a fire.</p> | <div style="border: 1px solid black; width: 80px; height: 40px; margin: 0 auto;"></div> |
| <p>2 Know the principles of, and how to make, an emergency shelter. Spend a night in a shelter you built.</p> | <div style="border: 1px solid black; width: 80px; height: 40px; margin: 0 auto;"></div> |
| <p>3 Demonstrate THREE ways to purify water in the wild, and be able to discuss why this is important.</p> | <div style="border: 1px solid black; width: 80px; height: 40px; margin: 0 auto;"></div> |
| <p>4 Demonstrate lighting a fire without matches using the method of your choice.</p> | <div style="border: 1px solid black; width: 80px; height: 40px; margin: 0 auto;"></div> |
| <p>5 Demonstrate knowledge of how to protect yourself against insects, reptiles, and bears in the backcountry.</p> | <div style="border: 1px solid black; width: 80px; height: 40px; margin: 0 auto;"></div> |
| <p>6 Demonstrate THREE of the following:</p> <p><input type="checkbox"/> a Methods of moving injured persons with regard to their safety and comfort, and knowledge of when it is too dangerous to move an injured person</p> <p><input type="checkbox"/> b TWO methods of sheltering an injured companion or yourself in place</p> <p><input type="checkbox"/> c Use of a compass and landmarks to triangulate your position on a map</p> <p><input type="checkbox"/> d How to improvise a watercraft</p> <p><input type="checkbox"/> e THREE basic emergency signaling techniques</p> <p><input type="checkbox"/> f THREE methods of improvised clothing</p> <p><input type="checkbox"/> g THREE methods for finding north</p> | <div style="border: 1px solid black; width: 80px; height: 40px; margin: 0 auto;"></div> |
| <p>7 Satisfy your Examiner that you know and understand the dangers of exposure and its treatment.</p> | <div style="border: 1px solid black; width: 80px; height: 40px; margin: 0 auto;"></div> |
| <p>8 Be able to discuss the particular dangers weather poses in your region and how to plan for them.</p> | <div style="border: 1px solid black; width: 80px; height: 40px; margin: 0 auto;"></div> |



OUTDOOR SKILLS ROCK CLIMBER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

<p>1 Know safety protocols for rock climbing inside and outdoors.</p>	<input type="text"/>
<p>2 Know the knots relevant to rock climbing, including the following:</p> <p><input type="checkbox"/> a Figure 8 follow through knot (also known as the trace eight)</p> <p><input type="checkbox"/> b Angler's knot</p>	<input type="text"/>
<p>3 Be able to belay a fellow scout and pass a test proving your skills and knowledge of the standard belay commands used in your area or local climbing gym.</p>	<input type="text"/>
<p>4 Know how to wear a safety harness. Know what it is for and how it works for rock climbing.</p>	<input type="text"/>
<p>5 Climb to a height of 20 feet off the ground either inside or outdoors, a total of 10 times, using proper safety measures and under your own power. This may be done over the course of several trips.</p>	<input type="text"/>
<p>6 Know the difference between bouldering and climbing.</p>	<input type="text"/>
<p>7 Be able to boulder on a wall or climb that leans towards you, not just vertically.</p>	<input type="text"/>
<p>8 Describe a climbing area close to you, and visit the area, if possible. Know the history and geology of the area.</p>	<input type="text"/>
<p>9 Describe and demonstrate THREE climbing movements and when they would be used. Examples may include the following:</p> <p><input type="checkbox"/> a Stem</p> <p><input type="checkbox"/> b Arm bar</p> <p><input type="checkbox"/> c Mantle</p> <p><input type="checkbox"/> d Dyno</p> <p><input type="checkbox"/> e Fist jam</p>	<input type="text"/>



Civics and Community

Civics and Community badges focus on how you can serve your community and the world. After all, “A scout’s duty is to be useful and help others.”

In the Civics and Community category, you will find badges for skills that are directly and immediately helpful to others, like First Aid and Child Care. However, you can also earn badges for other kinds of helping, like helping the Earth (Conservationist) or yourself (Healthy Living). If you want to learn more about helping on social issues, you might want to pursue Debater or Advocate. There are many ways to be a leader, including leading your patrol in working on the projects listed in these badges.

The Civics and Community badges are marked with a red circle, and are associated with the Torchbearer pillar award. A Torchbearer shows excellence in civics, leadership, and volunteering.

Civics and Community badges should be attached to the right sleeve of your uniform, except for the First Aid badge, which is worn on the front right chest.

Civics and Community badges include the following:

- Advocate
- Child Care
- Civics and Government
- Community Service
- Conservationist
- Debater
- Firefighter
- First Aid
- Guide
- Healthy Living
- Historian
- Interpreter
- World Friendship



CIVICS AND COMMUNITY ADVOCATE

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

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| <p>1 Have a conversation with a scoutmaster about why inclusivity is important and how to be supportive of people in your community. Understand the importance of recognizing people in the ways that they identify.</p> | <input type="text"/> |
| <p>2 In support of the LGBTQ+ (Lesbian, Gay, Bisexual, Transgender, Queer, and others) community, create a rainbow flag (or other appropriately supportive flag) from materials of your choice. You may use fabric, yarn, found materials, or anything else. Display your art at your meeting space or at a patrol meeting, and explain to your patrol how you made your art.</p> | <input type="text"/> |
| <p>3 Know why the LGBTQ+ community has flags and the reasons they are displayed. Be able to identify the rainbow flag, the trans flag, and at least TWO other flags used by the LGBTQ+ community.</p> | <input type="text"/> |
| <p>4 Learn about the American civil rights movement of the 1960's and what social progress it has created. Be able to state THREE ways it was not successful.</p> | <input type="text"/> |
| <p>5 Learn about microaggressions, especially in relation to BIPOC (Black and Indigenous People of Color). Be able to recognize microaggressions and how to avoid them.</p> | <input type="text"/> |
| <p>6 Learn about a group of Native Americans in your state, and share what you learn with your group.</p> | <input type="text"/> |
| <p>7 Demonstrate TWO ways you can adapt to include a person with a disability in your patrol activities. What could you do to include a scout who is blind or deaf? Discuss ways to be inclusive of those with learning disabilities like dyslexia.</p> | <input type="text"/> |
| <p>8 Be able to name THREE religions that are not your own, and tell something about them.</p> | <input type="text"/> |
| <p>9 Women obtained the right to vote in 1920 but are not equally represented in American government. Is your state senator a woman? Your governor? Your mayor? Learn about a woman who is in government and what issues she believes are still a challenge for women today.</p> | <input type="text"/> |
| <p>10 Participate in a community service project in your community that helps a group that has faced discrimination, or partner with an organization that has members who have faced discrimination.</p> | <input type="text"/> |



CIVICS AND COMMUNITY CHILD CARE

EARNED
EXAMINER & DATE

	COMPLETED EXAMINER & DATE
1 Know how to take down important information from parents/guardians before sitting, including emergency contact info, child's allergies, or other medical information.	<input type="text"/>
2 Know what kind of emergencies can arise while babysitting, when to call 911, and other ways to respond to an emergency.	<input type="text"/>
3 Demonstrate how to change a diaper. Using a doll is acceptable.	<input type="text"/>
4 Demonstrate THREE different ways to hold a baby that is under the age of 6 months. This may also be demonstrated using a life-sized doll.	<input type="text"/>
5 Know what foods are considered choking hazards for toddlers and what snacks to give instead.	<input type="text"/>
6 Know at what age a typical baby can crawl, walk, speak a few words, and wave goodbye.	<input type="text"/>
7 Know what things to check if a baby is crying, and name ways to soothe or comfort them.	<input type="text"/>
8 Know how and why to childproof a home, including the use of cabinet locks, outlet covers, toilet locks, and baby gates.	<input type="text"/>
9 Know FOUR games that you can play with a toddler.	<input type="text"/>
10 Demonstrate the ability to entertain a child under the age of four for at least 10 minutes.	<input type="text"/>



CIVICS AND COMMUNITY

CIVICS AND GOVERNMENT

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

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|--|----------------------|
| <p>1 Name the THREE branches of the federal government. Identify the branch tasked with implementing and enforcing the laws.</p> | <input type="text"/> |
| <p>2 Demonstrate that you can answer the following questions on citizenship:</p> <p><input type="checkbox"/> a Who is a citizen of the United States?</p> <p><input type="checkbox"/> b How can a person become a citizen?</p> <p><input type="checkbox"/> c What are the advantages of being a citizen?</p> | <input type="text"/> |
| <p>3 Describe THREE ways you can petition the federal government about an issue.</p> | <input type="text"/> |
| <p>4 Pass the Civics Practice Test published by the federal government at https://www.uscis.gov/citizenship/civics-practice-test-2008</p> | <input type="text"/> |
| <p>5 Name the body responsible for creating the laws in your state. How does this body differ from the structure of the United States Congress?</p> | <input type="text"/> |
| <p>6 Describe what role citizens of your state have in creating or amending laws.</p> | <input type="text"/> |
| <p>7 Demonstrate that you can answer the following questions on voting:</p> <p><input type="checkbox"/> a What are the principal qualifications in your state to be eligible to vote?</p> <p><input type="checkbox"/> b What is the difference between registering to vote and joining a political party?</p> <p><input type="checkbox"/> c What is straight-ticket voting? If you enroll in a political party, must you vote the straight ticket of that party?</p> | <input type="text"/> |
| <p>8 Describe the structure of the government of your village, town, city, county, or parish.</p> | <input type="text"/> |
| <p>9 What are the primary jobs of your local government?</p> | <input type="text"/> |
| <p>10 Write to a member of your local government about an issue that is important to you, your family, or your community.</p> | <input type="text"/> |
| <p>11 Name FIVE things on which the comfort and welfare of your family depend that are controlled by, or directly affected by, your local, state, or national government.</p> | <input type="text"/> |



CIVICS AND COMMUNITY COMMUNITY SERVICE

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- 1** Participate in at least **SEVEN** different community service projects that have been pre-approved by your Examiner. You may do projects with your patrol or individually. Projects chosen should demonstrate the scouting ideal of service. Some ideas for projects are below, but you may also develop your own.

Food scarcity: As a patrol, have a food drive, work at a soup kitchen, or food pantry or donate to other programs for food scarcity.

Animals: Volunteer at an animal shelter, or collect or make items to donate to an animal shelter or foster care for pets.

Community: Participate in a local outreach event promoting your scout group or otherwise instructing the community about OSG.

Homelessness: Create kits or blankets for the homeless community in your area or for refugees.

Civics: Attend **TWO** meetings of your city council or other local representative board. Write to your representative about a subject that concerns you.

Elderly: Visit a nursing home or elderly community, and do something to improve or enhance the lives of the residents. One way to help may be entertaining with skits, songs, or by playing a musical instrument; another could be enhancing the building by planting flowers, landscaping, hanging art, or decorating bulletin boards for residents to enjoy.

Environment: Participate in a litter clean up, trail clean up, plant trees, or another task to help the planet.

Social justice/human rights: identify a cause and one way a public official might help advance that cause. Organize a letter-writing campaign among your school, patrol, or troop.

- 2** Make a presentation to your patrol discussing at least **ONE** of the projects, including explanations of why you chose it and what you learned.



CIVICS AND COMMUNITY CONSERVATIONIST

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

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| <p>1 Learn what a carbon footprint is, and calculate what your family's carbon footprint is right now. State THREE ways to reduce your carbon footprint.</p> | <input type="text"/> |
| <p>2 Learn about what is and isn't recycled at your local recycling center. List 10 items that people think get recycled but really don't. Explain why this is a problem.</p> | <input type="text"/> |
| <p>3 Learn about zero-waste products. Know several reusable products you can buy or make to replace single-use items made of (or packaged in) plastic or paper. With your family, make at least ONE change in your household to reduce your family's waste production, and make a list of SEVEN more things you could do in the future to move towards creating zero waste.</p> | <input type="text"/> |
| <p>4 Learn about an environmental issue that is caused by commercial industry and is beyond the control of individual citizens. Write a letter to an appropriate member of government, such as your senator, asking them to make laws to protect the environment from this issue.</p> | <input type="text"/> |
| <p>5 Investigate a human-made ecological disaster, such as an oil spill, strip mine, or a forest fire. Be able to explain to your Examiner why it was a disaster and how long the clean-up efforts took. If it is not all cleaned up or reclaimed, explain the long-term effects on the local environment.</p> | <input type="text"/> |
| <p>6 Research industrial farming, and find out how it can affect the local water, air, and soil quality.</p> | <input type="text"/> |
| <p>7 Learn about THREE corporations or non-profits that are participating in conservation efforts. Do you feel they are more or less effective than the Environmental Protection Agency (EPA)?</p> | <input type="text"/> |
| <p>8 Learn how personal electronic devices, like cell phones, are recycled.</p> | <input type="text"/> |
| <p>9 State what "Leave No Trace" means and demonstrate the concept at a patrol event.</p> | <input type="text"/> |



CIVICS AND COMMUNITY DEBATER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Explain to your Examiner the difference between a debate and an argument.

2 Do **ONE** of the following:

a Watch a debate between candidates for any elected office, and then discuss with your Examiner whether the candidates were or were not persuasive. Did the candidates find common ground on any issues? What did you learn from the debate that you hadn't previously considered?

b Look up a famous debate in history, such as the 1858 campaign debates between Abraham Lincoln and Stephen Douglas or the 1985 debate about apartheid between Jesse Jackson and Jerry Falwell. State why that debate was important. Discuss with your Examiner who was considered the winner and why they won. What changes occurred because of the debate? Did the debaters on the topic find any common ground?

3 Have a discussion with your Examiner about what you consider to be the most important components of a debate. Include discussion of how one prepares for a debate and methods for acknowledging another's point of view with respect but without necessarily agreeing with them.

4 Participate in a debate, either in school or by organizing one within your patrol or troop (or other setting approved by your Examiner). The topic(s) may be of relatively small importance (e.g., "Which is better, cats or dogs?"). As part of the debate experience, present both sides of at least one argument yourself. For example, during one round you express why cats are better, and on the next round you convince your audience dogs are better. Explain to your Examiner what rules were in place for the debate and how those rules were enforced. How long were participants given? Were rebuttals an option? How were the questions decided?



CIVICS AND COMMUNITY FIREFIGHTER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Explain how your local fire department works. Consider the following questions:

- a** Is firefighting volunteer or a career?
- b** Is the fire department staffed 24 hours a day?
- c** How many stations are in your town where you live? Where is the closest station to your house?
- d** How does the fire department get activated in your town?

2 Explain the process of combustion and the fire triangle.

- a** Know the effects of smoke and heat and how to act in smoke.
- b** Know the dangers involved, and understand the fire precautions necessary, in the home, with respect to the following:
- 1** Electric wiring **4** Candles
- 2** Appliances and fuses **5** Party decorations
- 3** Oil and solid fuel heaters **6** Propane tanks.

3 Know the dangers of fire at camp and what precautions should be taken.

4 Know the causes of, and how to deal with, grass and forest fires.

5 Explain what action should be taken, and why, for an outbreak of fire in the home or outdoors. With the people that live in your home, develop an emergency plan and a meeting location (e.g., a large tree on your street or the neighbor's house) in the event that a fire requires evacuation.

6 Know how to use fire extinguishers and what fires they are to be used on. Explain the acronym PASS (Pull, Aim, Squeeze, Sweep). Demonstrate the PASS method without discharging an actual extinguisher.

7 Know how to deal with a person whose clothes are on fire. Explain the "stop, drop, and roll" technique.

CONTINUED ...

.....
8 Demonstrate how to safely drag an unconscious person who is too large for you to carry.

.....
9 Understand the function of **THREE** of the following:

- a** Fire-resisting doors
- b** Sprinkler systems
- c** Standpipes
- d** Smoke detectors
- e** Fire alarms

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10 Demonstrate that you understand fire risks in public places and what precautions you can take for yourself. For example, locate the emergency exits. Describe a quick exit plan to your Examiner.

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CIVICS AND COMMUNITY GUIDE

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Show that you know the locality surrounding your home and the place where your scout group meets. Use an area with a 2-mile radius in urban areas and up to 8 miles in rural areas. The Examiner may, at their discretion, vary the area as needed.

2 Know the whereabouts of, and be able to give directions to, the following locations in your area. If there are multiple answers, provide **ONE** example of each:

- a** Hospitals and urgent care facilities, animal rescues, and veterinary surgeons
- b** Fire stations, police stations, and ambulance stations
- c** Gas stations, bus stops, railway stations, or other transportation services
- d** Libraries, public parks, theaters, cinemas, local schools, places of worship, museums, military base or local armories, and any buildings of local interest
- e** Local supermarkets, pharmacies, and 24-hour pharmacies
- f** The polling place where your family would vote in an election

3 Know how reach, via phone or electronic means of communication, the following people or services:

- a** Poison control, emergency services, and, for non-emergencies, the local police station
- b** Taxi companies and health transportation services that serve your area
- c** Your patrol leader, assistant patrol leader, senior patrol leader, Pathfinder scoutmaster, Pathfinder assistant scoutmaster, group scoutmaster, and members of your patrol

4 Show how to use a map of your area and use it to point out at least **SIX** examples from Requirement 2 above. You should be able to guide the Examiner to any of the above via the quickest route.

5 Know the history of a local building or place of historical interest.



CIVICS AND COMMUNITY HEALTHY LIVING

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Know the food groups and why eating a varied diet is important. Plan a healthy meal that reflects this knowledge.

2 Understand how germs and viruses are passed from person to person. Know the difference between airborne and bloodborne viruses. Be able to demonstrate proper handwashing techniques to kill germs.

3 Know the dangers incurred using tobacco and alcohol and the breaking of the tenth scout law, "A scout is clean in thought, word and deed."

4 Know the danger of overtaxing the body with the continual use of one form of exercise or playing one sport too much. Be able to discuss repetitive motion injuries and other common injuries from excessive or poorly managed exercise.

5 Participate in at least **THREE** different types of exercise, and explain to your scout leader the advantages of each. Examples may include the following activities:

a Walking

d Weightlifting

b Hiking

e Jogging

c Dancing

f Playing a sport

6 Explain the number of hours of sleep people need at different ages. Be able to discuss how insufficient sleep can impact your health. Discuss good habits for napping.

7 Practice a mindfulness or meditation routine for 30 days, and be able to discuss how it impacted you. Explain to your Examiner how you can recognize when you are under stress, and suggest good ways to relieve stress.



CIVICS AND COMMUNITY HISTORIAN

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Know, and be able to discuss, the differences between primary and secondary sources used in the study of history.

2 Be able to describe the importance of using multiple sources when researching and how to reconcile sources that don't fully align with one another.

3 Find someone who is willing to sit with you for an oral history interview. Complete the following steps:

- a** Identify a topic and a person knowledgeable about that topic.
- b** Get the person's permission to conduct the interview and to share the results.
- c** Prepare for the interview by studying the topic, identifying an overall goal for the interview and developing relevant questions. Include research in an appropriate forum, such as the archives from a local historical society and/or an historical or genealogical database, to inform the types of questions and details you can ask.
- d** Conduct the interview using a recording device. Make sure that you include appropriate information about the date, time, person interviewed, and topic at the beginning of the recording.
- e** Prepare an index of the interview, including major topics covered in the recording and the time mark (minute and second) for the beginning of each topic. An index should be 10-20 lines.

4 Identify a community that is important to you. A community here may mean any group of people that share something in common. Plan and undertake a research project about some aspect of that community's history that you can share with your troop.



CIVICS AND COMMUNITY INTERPRETER

NOTE: An additional badge is worn by an Interpreter above the right breast pocket, showing the language or languages spoken.

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

FOREIGN LANGUAGE OPTION

1 Initiate and maintain a face-to-face conversation of about 10 minutes that satisfies limited social demands. The conversation may largely consist of a series of short, discrete utterances and frames and should be able to deal effectively with unanticipated complications. A speaker unaccustomed to dealing with non-native speakers should be able to understand the scout in the test language without difficulty. The expected fluency should be equivalent to passing 3 years of a high school foreign language course.

2 Translate 200 words from written text.

3 Translate a 2-minute speech or address.

4 Write a one-page document in the language.

AMERICAN SIGN LANGUAGE (ASL) OPTION

1 Take a community or school course (or equivalent self-study) in ASL, and complete the first level of course work with a satisfactory grade or performance. Course work must include an understanding of the following:

a ASL Grammar and sentence structure

b *Wh*-questions and yes/no questions, including non-manual markers and facial expressions

c Finger spelling

d A basic vocabulary of at least 500 signs or glosses

2 Converse in ASL for 10 minutes with a fluent signer.

3 Translate a short conversation between a sign language user and someone with no sign language experience.

4 Invite a sign language user to address the troop about what it is like to have hearing or speech impediments. Help by acting as translator for them during the visit.



CIVICS AND COMMUNITY

WORLD FRIENDSHIP

See also: World Scouting Award, under Special Awards

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

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| <p>1 Research scouting groups around the world, paying particular attention to members of the WFIS. Tell your Examiner about the history of ONE international scouting association.</p> | <div style="border: 1px solid black; height: 37px; width: 100%;"></div> |
| <p>2 Identify THREE differences between our scouting organization and one other, and explain where those differences came from.</p> | <div style="border: 1px solid black; height: 37px; width: 100%;"></div> |
| <p>3 Explain to your Examiner how youth can personally experience life in other countries. Research exchange students, study abroad, and other programs. Would you rather host a visitor or visit another country yourself? Where would you like to go?</p> | <div style="border: 1px solid black; height: 37px; width: 100%;"></div> |
| <p>4 Learn about the United Nations, beginning with its charter. Why was it formed, by whom, and how does it work today? Present to your patrol a summary of one crisis to which the UN is currently responding and what they are doing to resolve it.</p> | <div style="border: 1px solid black; height: 37px; width: 100%;"></div> |
| <p>5 Identify at least THREE other organizations that are working to encourage peace, understanding, and cooperation between nations.</p> | <div style="border: 1px solid black; height: 37px; width: 100%;"></div> |
| <p>6 Research an ongoing human rights crisis in another country, and make a positive contribution through a service project.</p> | <div style="border: 1px solid black; height: 37px; width: 100%;"></div> |
| <p>7 Do ONE of the following:</p> <p><input type="checkbox"/> a Make a new pen-pal friend in another country and correspond or video chat with them at least SIX times. Learn about their culture, and present a summary to your patrol, including local food and customs. Make a hand-drawn map and flag of their country, state, province, or city. If your pen-pal is a scout, include details about their activities. Trade a patch (not badge) from your scout group for one from their group.</p> <p><input type="checkbox"/> b Attend an international scout event. Speak to scouts from other countries, and present to your patrol what you learned about how their scouting is different from your scouting experience. Trade at least one patch (not badge) from your scout group for one from their group.</p> <p><input type="checkbox"/> c Help your family host an exchange youth from another country. Present what you've learned about their culture to your patrol.</p> | <div style="border: 1px solid black; height: 37px; width: 100%;"></div> |



Creative Arts

Creative Arts badges take “arts and crafts” to a whole new level. Explore a hobby, learn a new interest, or consider a career path. Express yourself via drawing, painting, sculpting, dance, music, film, photos, and more.

Artistic pursuits have always been a part of scouting, and the value of creative expression cannot be overstated. Making art can encourage confidence, creativity, humility, and respect. In addition, learning to appreciate the work of other artists brings people together. But the strongest case for Creative Arts is that making art can be a whole lot of fun.

The Creative Arts badges are marked with a gold circle, and earning badges from this category is required as a part of the Trailblazer pillar award. Go out and explore all the forms of self-expression. You may find a lifelong passion.

Creative Arts badges are worn on the right sleeve of your uniform.

The following are the Creative Arts special proficiency badges:

- Architect
- Basket Worker
- Dancer
- Drummer
- Entertainer
- Filmmaker
- Musician
- Paracordist
- Photographer
- Sculptor
- Visual Artist



CREATIVE ARTS ARCHITECT

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|---|--|
| <p>1 Present freehand or CAD drawings of a subject (agreed upon with your Examiner), including a study of scale. Draw a single object at several different scales.</p> | |
| <p>2 Explain the use of the following tools:</p> <p><input type="checkbox"/> a Architectural scale</p> <p><input type="checkbox"/> b Drafting compass</p> <p><input type="checkbox"/> c T square</p> | |
| <p>3 Learn about EACH of the following basic components of construction. Describe how architects specify materials appropriately based on the expected use and conditions.</p> <p><input type="checkbox"/> a Concrete</p> <p><input type="checkbox"/> b Timber</p> <p><input type="checkbox"/> c Stone</p> <p><input type="checkbox"/> d Gypsum</p> <p><input type="checkbox"/> e Metal</p> <p><input type="checkbox"/> f Glass</p> | |
| <p>4 Tour a building site or an architecture/structural engineers' office, or interview a builder or architect.</p> | |
| <p>5 Research local building codes. Be able to explain where to find the codes and who enforces the codes in your area.</p> | |
| <p>6 Know the differences between the following professions:</p> <p><input type="checkbox"/> a Architect</p> <p><input type="checkbox"/> b Civil engineer</p> <p><input type="checkbox"/> c Structural engineer</p> <p><input type="checkbox"/> d Mechanical engineer</p> <p><input type="checkbox"/> e Geotechnical engineer</p> <p><input type="checkbox"/> f Interior designer</p> | |
| <p>7 Be able to discuss what types of renovation or construction work in your area require the involvement of an architect or engineer, and why those professionals are required.</p> | |



CREATIVE ARTS
BASKET WORKER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Have a general knowledge of the raw materials that may be to create baskets or other woven items of practical use.

2 Know where the raw material is obtained and how it is prepared for working.

3 Produce an article of practical use in either basket, cane, rush, or straw work, made entirely on your own. This could include weaving the cane seat for a chair, for example, without building the chair itself. The project should be approved by your Examiner prior to beginning.



CREATIVE ARTS
DANCER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Learn **ONE of EACH** of the following groups of dances:

a A line dance: The Electric Slide, the Boot Scoot Boogie, the Macarena, or a similar dance.

b The Twist, the Mashed Potato, or the Swim.

c A square dance or folk dance of any culture.

2 Speak with your Examiner about the cultural power of dance.

3 Learn three modern dances, and demonstrate them to your group or your Examiner (however you are comfortable).



CREATIVE ARTS DRUMMER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- 1 Perform **EACH** of the following rudiments with drum sticks (on a drum or drum pad) or with a hand drum:

- a** Single stroke roll
- b** Double stroke roll
- c** Flam, both right and left hand
- d** Single paradiddle
- e** Single dragadiddle
- f** Five stroke roll
- g** Seven stroke roll

- 2 Play along with a simple song or chant for your patrol.



CREATIVE ARTS ENTERTAINER

EARNED
EXAMINER & DATE

To obtain the Entertainer proficiency badge you must prepare and perform for an audience at a group campout, Moot, Hullabaloo, or similar type of organized event. The performance can be a skit, monologue, song (singing or instrumental), comedy routine, conjuring, or similar, as long as it is not used to meet the requirements of any other badge. Performances must be at least 3 minutes long. Group performances are acceptable as long as you are a featured performer. For example, having more than one third of the lines in a skit is a good indication that a performer is featured.

COMPLETED
EXAMINER & DATE

1 Develop material for public performance, doing **ONE** of the following:

- a** Write original material for performance.
- b** Find material written by others that could be performed or adapted for performance.

2 Practice your material prior to performance. Explain to your Examiner what you learned during rehearsal and how it improved your final performance.

3 Perform in front of audiences at least **TWO** times for new material you have written or helped write or at least **FOUR** times for pre-existing material or material written by someone other than yourself.



CREATIVE ARTS FILMMAKER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|--|--|
| <p>1 Create a short film, at least 5 minutes in length. Your film can be educational or purely entertaining. The film should showcase your understanding of the techniques required to produce an enjoyable program, including the following:</p> <p><input type="checkbox"/> a Sound</p> <p><input type="checkbox"/> b Editing</p> <p><input type="checkbox"/> c Pan and zoom</p> <p><input type="checkbox"/> d Voice-over</p> <p><input type="checkbox"/> e Title screen</p> <p><input type="checkbox"/> f Credits screen</p> | <p>COMPLETED
EXAMINER & DATE</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div> |
| <p>2 Explain direct and indirect lighting and how each can be used to highlight a subject for effect.</p> | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> |
| <p>3 Identify THREE different aspect ratios, and identify why one may be chosen over another.</p> | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> |
| <p>4 Understand the difference between autofocus and manual focus and why one may work better than the other for videography.</p> | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> |
| <p>5 Be able to state how far away most microphones will work for amateur video purposes.</p> | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> |
| <p>6 Upload your film to a platform where your patrol and your scout leader can view it, and let them watch your film.</p> | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> |
| <p>7 Be able to discuss copyright issues relating to your own work as well as to the photos, music, and videos created by other artists.</p> | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> |



CREATIVE ARTS MUSICIAN

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1	Play or sing a scale and know its composition.	<input type="text"/>
2	Write a scale in either the treble clef, bass clef, or other appropriate notation system.	<input type="text"/>
3	Identify all intervals present in the scale presented.	<input type="text"/>
4	Be able to distinguish between pieces in 3 and 4 time.	<input type="text"/>
5	Draw the symbols for quarter, half, and whole notes in Western notation.	<input type="text"/>
6	Name FIVE composers and one composition of each.	<input type="text"/>
7	Play or sing a song as a performance for your patrol, if you are comfortable, or devise an alternative performance with your Examiner.	<input type="text"/>
8	Play or sing, correctly from memory, ONE piece of music.	<input type="text"/>
9	Sight read (vocally or instrumentally) a moderately difficult piece chosen by your Examiner. Explain all signs and terms in the notation.	<input type="text"/>
10	Name the following:	<input type="text"/>
	<input type="checkbox"/> a At least THREE instruments in a traditional western orchestra	
	<input type="checkbox"/> b At least THREE instruments that might appear in a rock or country band	
	<input type="checkbox"/> c At least SIX instruments found in any style of music performance outside of the western tradition	



CREATIVE ARTS PARACORDIST

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- 1 Make at least **THREE** of the following items with paracord. Use at least **TWO** colors in one of your projects.

- a** Bracelet
- b** Necklace
- c** Water bottle holder that attaches to your pack or gear
- d** A decorative knot/design for use as an ornament or key chain
- e** A useful item, such as a sling, hammock, or bag

- 2 Be able to state **FIVE** things a scout could use paracord for while camping or in an emergency.

- 3 Have knowledge of the different weights/grades of paracord.



CREATIVE ARTS PHOTOGRAPHER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

<p>1 Understand the basics of composition: rule of thirds, leading lines, visual weight, eye-lines, triangles, and balance.</p>	<input type="text"/>
<p>2 Know the meaning of depth of field, aperture, shutter speed, and ISO (International Organization for Standardization) and how they affect each other and the final product of a photograph.</p>	<input type="text"/>
<p>3 Know how and when to change white balance.</p>	<input type="text"/>
<p>4 Select 12 photographs and arrange them in order of merit. Give your reasoning as to why you have chosen these and arranged them the way you have. Discuss how the basics of photographic composition are used in the selected photos.</p>	<input type="text"/>
<p>5 Capture the following images:</p> <p><input type="checkbox"/> a THREE photographs of wildlife (e.g., birds, trees, etc.)</p> <p><input type="checkbox"/> b THREE different photographic views of your campsite</p> <p><input type="checkbox"/> c THREE examples of a still life, landscape, or portrait photograph</p>	<input type="text"/>
<p>6 Demonstrate the ability to do simple, basic editing of a photograph. This should include cropping, straightening, exposure, saturation, and sharpening.</p>	<input type="text"/>
<p>7 Print the edited photograph from Requirement 6, above.</p>	<input type="text"/>
<p>8 Know how to positively critique another's work and to accept others critiquing your own work. <i>[Requirement optional if badge completed with a group.]</i></p>	<input type="text"/>
<p>9 Know about copyright law in relation to photography, both in regard to your work and that of others.</p>	<input type="text"/>
<p>10 Discuss the ethics of photo editing in modern media and in personal situations. Can editing a photo be unethical?</p>	<input type="text"/>



CREATIVE ARTS SCULPTOR

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- 1 Explain the different characteristics of at least **THREE** types of clay and what each is best used for.
- 2 Explain common tools used in sculpture and what they are used for.
- 3 Create a sculpture of found objects.
- 4 In a medium of your choice, create a sculpture of a head, a hand, or a foot as large as your own.
- 5 Create a sculpture of something found in nature. Present the actual item beside your sculpture for comparison. This could be a seashell, flower, leaf, or other item you choose.
- 6 Create a sculpture of one or more animals and present it to your group.



CREATIVE ARTS

VISUAL ARTIST

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 What is a visual artist? Do some research on different kinds of artists, such as sculptors, painters, or photographers. Learn how they make a living. Discuss what you learn with your patrol or Examiner.

2 Draw or paint **EACH** of the following, and show them to your patrol or Examiner.

a A landscape

b A bird

c A mammal

d A camp scene

e A portrait

3 Explain to your Examiner how art is reproduced for sale.

4 With your Examiner or your patrol, discuss the benefits and challenges that visual artists face today due to the internet. Explain how a specific app or website is helpful or harmful to visual artists.

5 Demonstrate an understanding of color and contrast by creating **EACH** of the following images, and explain to your patrol how you made each. You may use the same or different subjects for each image. Explain your choices.

a A charcoal or black and white drawing

b A monochromatic drawing or painting

c A full color painting or drawing where color is used with specific purpose



Life Skills

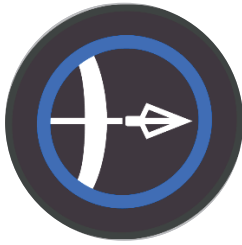
Life Skills badges allow you to follow interests that serve you your whole life. The requirements for these badges focus on vocational skills, practical knowledge, and personal enrichment. Some of the badges are outdoor focused, like Naturalist and Forester, some are more inward-looking, like Collector and Reader. You will also find athletic pursuits like Archer, Swimmer, and Martial Artist in this category.

The Life Skills badges are marked with a blue circle, and are part of the Voyager pillar. The Voyager award is earned by scouts who do exemplary work in the areas of career exploration, self-improvement, and self-discovery.

Life Skills badges are worn on the left sleeve of your uniform.

The Life Skills special proficiency badges are the following:

- Archer
- Athlete
- Beekeeper
- Canner
- Chicken Farmer
- Collector
- Equestrian
- Forester
- Gardener
- Geologist
- Homemaker
- Hospitality
- Housewright
- Journalist
- Martial Artist
- Meteorologist
- Personal Finance
- Reader
- Sharpshooter
- Signaler
- Swimmer
- Tailor
- Zoologist



LIFE SKILLS ARCHER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Be able to explain first aid skills that may apply to archery.

2 Understand range safety and scoring rules.

- a Name and explain the **FOUR** whistle commands used on range.
- b Name and explain **THREE** safety rules while on the shooting line.
- c Name and explain **THREE** safety rules when retrieving arrows.
- d Demonstrate how to carry arrows safely in your hand.
- e Explain importance of obedience to range officer or other officer in charge of the range.
- f Explain the difference between an end and a round.
- g Explain scoring for the five-color World Archery Federation.
- h Explain scoring for the National Field Archery Association (NFAA) targets, both outdoor and indoor.
- i Explain, and give distance measurements in yards, for the target line, the shooting line, and the waiting line.

3 Know and discuss eye dominance.

- a Name and explain **THREE** methods to determine eye dominance.
- b Explain why knowing eye dominance determines positioning on shooting line.
- c Explain how knowing eye dominance determines choice of bow and stance.

4 Demonstrate the following 11 steps and explain each.

- | | |
|--|---|
| <input type="checkbox"/> a Stance | <input type="checkbox"/> g Anchor |
| <input type="checkbox"/> b Nock | <input type="checkbox"/> h Aim |
| <input type="checkbox"/> c Draw hand placement | <input type="checkbox"/> i Shot setup |
| <input type="checkbox"/> d Bow hand placement | <input type="checkbox"/> j Release |
| <input type="checkbox"/> e Pre-draw | <input type="checkbox"/> k Follow through and reflect |
| <input type="checkbox"/> f Draw | |

CONTINUED ...

5 Know and be able to state the following information about arrows.

a Identify and name the parts of an arrow, including the following:

1 Shaft

4 Nock

2 Vanes (fletching)

5 Point

3 Index vane

6 Crest (markings on shaft)

b Describe **THREE** or more different types of arrows.

c Name **FOUR** principal materials used to make arrow shafts.

d Explain and demonstrate how to determine proper arrow length.

e Explain how to care for and store arrows properly.

f Demonstrate how to repair and/or replace vanes, nock, and point.

6 Explain proper use, care, and storage of archery gear.

a Tabs (shooting gloves)

d Bow sights

b Arm guards

e Bow stringer

c Release aids

f Quiver

7 Understand the difference between a recurve bow and a compound bow, and choose to complete **EITHER** of the two qualifications below.

QUALIFY WITH A RECURVE BOW

COMPLETED
EXAMINER & DATE

1 Identify the parts of the recurve bow.

a Upper and lower limb

e Back of bow

b Bowstring

f Face of bow

c Sight window

g Center serving

d Arrow rest

h Nock locator

2 Explain the principles of care and storage of a recurve bow.

3 Show the 11 steps (see Requirement 4) using a recurve bow.

4 Demonstrate that you know how to use a bow square to identify the nocking point of the bowstring of the bow you are using.

5 Make a bowstring using appropriate materials for the bow you are using.

CONTINUED...

6 Complete **EITHER** (a) or (b), below:

a Using a recurve bow, shoot **ALL** of the following:

- 1 A round using NFAA field round of 14 targets and scoring 60 points
- 2 A round using World Archery indoor round and scoring 80 points
- 3 A round using NFAA indoor round and scoring 50 points

b Shoot 30 arrows, in five arrow ends, at an 80 centimeter (32 inch) five-color target at 10 yards, and score 150 points.

QUALIFY WITH A COMPOUND BOW

COMPLETED
EXAMINER & DATE

1 Identify the parts of a compound bow.

- | | |
|---|---|
| <input type="checkbox"/> a Upper and lower limb | <input type="checkbox"/> g Face of bow |
| <input type="checkbox"/> b Bowstring | <input type="checkbox"/> h Center serving |
| <input type="checkbox"/> c Sight window | <input type="checkbox"/> i Nock locator |
| <input type="checkbox"/> d Arrow rest | <input type="checkbox"/> j Wheel |
| <input type="checkbox"/> e Bow shelf | <input type="checkbox"/> k Cam |
| <input type="checkbox"/> f Back of bow | |

2 Explain the principles for care and storage of compound bows.

3 Show the 11 steps (see Requirement 4) using a compound bow.

4 Explain why it is necessary to have the string or cable on a compound bow replaced at an archery shop.

5 Demonstrate that you know how to identify the nocking point of the bowstring of the bow you are using.

6 Complete **EITHER** (a) or (b), below:

a Using a compound bow, shoot **ALL** of the following:

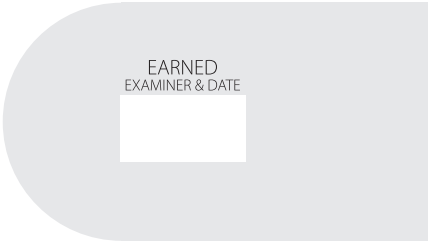
- 1 A round using NFAA field round of 14 targets and scoring 70 points
- 2 A round using World Archery indoor round and scoring 90 points
- 3 A round using NFAA indoor round and scoring 60 points

b Shoot at an 80 centimeter (32 inch) five-color target using the 10 scoring regions, scoring a minimum of 160 points. Do **BOTH** of the following:

- 1 Shoot 15 arrows in five-arrow ends, at a distance of 10 yards.
- 2 Shoot 15 arrows in five-arrow ends, at a distance of 15 yards.



**LIFE SKILLS
ATHLETE**



	COMPLETED EXAMINER & DATE
<p>1 Research and explain to your Examiner the basics of how to train for athletic competition and what risks to avoid. Discuss how stress injuries can occur and how to avoid them. Demonstrate good warm-up and cool-down techniques.</p>	<input type="text"/>
<p>2 Know about injuries that can occur in your sport and basic first aid to treat them.</p>	<input type="text"/>
<p>3 Demonstrate for your Examiner a thorough knowledge of the rules and etiquette of competition for your chosen sport. Explain the equipment required, including any protective equipment.</p>	<input type="text"/>
<p>4 Explain integrity in fair play with regard to sports. Why is it important? Give several examples of when you have seen it demonstrated by amateur or professional players.</p>	<input type="text"/>
<p>5 Explain the attributes of a good team leader and a good team player.</p>	<input type="text"/>
<p>6 Understand the fundamentals of "practice like you play."</p>	<input type="text"/>
<p>7 Take part as a member of an organized sport for at least 2 seasons. During your participation, track your performance, and be able to share how you have made significant improvement in your performance over that time.</p>	<input type="text"/>



LIFE SKILLS BEEKEEPER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Know the first aid treatment for bee stings. Explain the protective gear most beekeepers use and why they use it.

2 What constitutes a swarm of bees? How do they live?

3 Tell how honey is gathered and stored, how honeycomb is built, and what part the queen, drones, and workers play in the life of the colony.

4 Be able to recognize and describe **EACH** of the following:

- | | |
|------------------------------------|--|
| <input type="checkbox"/> a Queen | <input type="checkbox"/> h Bee food |
| <input type="checkbox"/> b Drones | <input type="checkbox"/> i Wax |
| <input type="checkbox"/> c Workers | <input type="checkbox"/> j Pollen |
| <input type="checkbox"/> d Eggs | <input type="checkbox"/> k Propolis |
| <input type="checkbox"/> e Larvae | <input type="checkbox"/> l Brood-nest |
| <input type="checkbox"/> f Pupae | <input type="checkbox"/> m Comb |
| <input type="checkbox"/> g Honey | <input type="checkbox"/> n Different queen cells |

5 Have practical knowledge of bee keeping, and provide a statement from a beekeeper stating you assisted in the following:

- a Having a swarm
- b Examining a colony
- c Removing the comb
- d Finding the queen
- e Putting foundation in sections
- f Filling and removing supers
- g Preparing honey in comb and strained for market

6 Know which flowers afford the best food for bees and how honey varies in both color and flavor according to the flowers.



LIFE SKILLS CANNER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|--|----------------------|
| <p>1 Explain the essential sterilization and storage rules for canning safety.</p> | <input type="text"/> |
| <p>2 Submit TWO of the following specimens of canning work:</p> <p><input type="checkbox"/> a Three pints of freezer-packed vegetables, single or mixed</p> <p><input type="checkbox"/> b Three jars of preserved fruit (at least two kinds)</p> <p><input type="checkbox"/> c Three glasses of jelly, jam, or marmalade</p> | <input type="text"/> |
| <p>3 Know the essential things to be considered when selecting vegetables to be canned, fruit to be preserved, or fruit made into jelly, jam, or marmalade.</p> | <input type="text"/> |
| <p>4 Give general rules for preparing fruits and vegetables for preserving in any way.</p> | <input type="text"/> |
| <p>5 Explain the kind of jars that are considered best for preserving. What other materials are used to store preserved foods besides glass? How should all utensils, jars, glasses, rubbers, etc., be prepared for use?</p> | <input type="text"/> |
| <p>6 Explain the general rules for preserving fruit. Provide the following for both the fruits that you submitted for Requirement 2 and for at least TWO other specimens:</p> <p><input type="checkbox"/> a List of ingredients</p> <p><input type="checkbox"/> b Measurements or proportions of each ingredient (volume or weight)</p> <p><input type="checkbox"/> c Time of cooking</p> | <input type="text"/> |
| <p>7 Give the same rules for jams, marmalades, and jellies.</p> | <input type="text"/> |
| <p>8 Give directions for filling and sealing jars. How can jars be tested within 24 hours after filling? If the jars are not found to be airtight what should be done?</p> | <input type="text"/> |
| <p>9 What should be done to all jars, tumblers, etc., before storing? How are canned goods best stored?</p> | <input type="text"/> |
| <p>10 Discuss basic fermentation principles for items, such as pickles or sauerkraut. How does fermentation preserve food? Be able to discuss the roles of yeast, bacteria, alcohol, sugar, and decomposition.</p> | <input type="text"/> |



LIFE SKILLS
CHICKEN FARMER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Know the life cycle of a chicken. Hatch chicks with an incubator, if possible.

2 Know the difference between at least **FOUR** breeds of hen, and know which breeds are layers and which are broilers.

3 Know what to feed hens to maximize egg production.

4 Know what predators and risks are associated with having chickens.

5 Be able to cook eggs **FOUR** ways.

6 Build or create something for the well-being of your chickens. This could be a coop, feed dispenser, ramp, pen, or other item that helps your chickens be happy and safe.



**LIFE SKILLS
COLLECTOR**

EARNED
EXAMINER & DATE

	COMPLETED EXAMINER & DATE
<p>1 Over a period of 6 months, make or add to a collection of stamps, fossils, coins, matchbox labels, or something else of your choosing. Organize your collection and display it to your patrol.</p>	<div style="border: 1px solid black; width: 100%; height: 30px;"></div>
<p>2 When displaying the collection for your patrol, explain how you became interested in collecting these items, and be able to describe the origin of items in your collection.</p>	<div style="border: 1px solid black; width: 100%; height: 30px;"></div>
<p>3 Explain why you find your collection interesting, and be able to talk to the Examiner about it with understanding.</p>	<div style="border: 1px solid black; width: 100%; height: 30px;"></div>
<p>4 Know about correct methods of displaying your collection. Why are these methods important?</p>	<div style="border: 1px solid black; width: 100%; height: 30px;"></div>
<p>5 Know the history of collections similar to yours. For example, if you collect stamps, be prepared to discuss the history of philately.</p>	<div style="border: 1px solid black; width: 100%; height: 30px;"></div>



LIFE SKILLS EQUESTRIAN

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Demonstrate that you know how to dress safely for riding.	<input type="text"/>
2 Know the safety rules for approaching and catching a horse.	<input type="text"/>
3 Demonstrate an appropriate tack safety check before mounting.	<input type="text"/>
4 Demonstrate how to saddle and bridle a horse correctly, and show a horse in-hand.	<input type="text"/>
5 Water, feed, and groom a horse correctly.	<input type="text"/>
6 Strip, clean, and assemble either a saddle and bridle or harness and bridle.	<input type="text"/>
7 Know the parts of a horse, and be able to detect lameness and other common ailments.	<input type="text"/>
8 Ride a horse at all paces appropriate for that horse, and demonstrate turning and stopping.	<input type="text"/>
9 Explain TWO different kinds of saddle and bridle and the advantages and disadvantages of each.	<input type="text"/>
10 Be able to identify at least FIVE different kinds of horses or ponies.	<input type="text"/>



LIFE SKILLS FORESTER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|--|----------------------|
| <p>1 Identify the principal native tree species in your own locality, and explain its principal distinguishing characteristics.</p> | <input type="text"/> |
| <p>2 Identify FIVE kinds of shrubs.</p> | <input type="text"/> |
| <p>3 Describe the principal uses of 10 species of North American woods. Visit a cabinet shop, furniture maker, or other wood-using factory, and explain to your Examiner what woods were used for which products and why those woods were used.</p> | <input type="text"/> |
| <p>4 Explain the aim of forestry, and how that goal contends with the agriculture industry and unregulated lumbering. Learn about how state regulatory agencies balance recreation and commercial forestry.</p> | <input type="text"/> |
| <p>5 Describe the effects of fires on soil, young forest growth, and mature timber; the principal causes of forest fires and how best to overcome them; and THREE general classes of forest fires and how to fight each. Learn about controlled burns, needed burns, and slash-and-burn farming.</p> | <input type="text"/> |
| <p>6 Describe how the forest lands are protected and administered in your state.</p> | <input type="text"/> |
| <p>7 Describe the general features of a lumbering or pulpwood operation. How is the cutting done in the woods? How is the wood transported to the mill? How is the lumber prepared once at the mill? Visit a sawmill, pulp mill, or paper mill, if practicable.</p> | <input type="text"/> |
| <p>8 Discuss one or more of the enemies of trees, such as insects (e.g., leaf eaters, bark borers, or wood borers), fungus, or diseases. Tell something of how damage from these sources may be lessened or overcome.</p> | <input type="text"/> |
| <p>9 Express the impact of globalization on forestry and the history of forestry in your area.</p> | <input type="text"/> |
| <p>10 Learn, and be able to discuss, what kind of education is needed to become a forester, arborist, millwright, or forest ranger.</p> | <input type="text"/> |



LIFE SKILLS
GARDENER

EARNED
EXAMINER & DATE

To complete the following objectives and earn the Gardener proficiency badge, you must participate in a gardening project either at your own home, a community garden, the home of another Pathfinder, or a site approved by your scout leader.

	COMPLETED EXAMINER & DATE
1 Double dig a piece of ground at least 12 square feet, or prepare an equivalent container garden.	<input type="text"/>
2 Plant and successfully grow FOUR kinds of vegetables or flowers from seeds or cuttings.	<input type="text"/>
3 Know the names of EIGHT plants your Examiner has pointed out in an ordinary garden.	<input type="text"/>
4 Understand what is meant by pruning, grafting, and manuring.	<input type="text"/>
5 Be able to identify the THREE most common insect pests in your garden.	<input type="text"/>
6 Be able to identify the THREE most common weeds in your garden.	<input type="text"/>
7 Be able to suggest methods for fungal control.	<input type="text"/>
8 Describe the difference between organic and industrial gardening.	<input type="text"/>



LIFE SKILLS

GEOLOGIST

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Show a general understanding of the origin of rocks.

2 Show a general knowledge of these principal rock structures:

- a Stratification
- b Folds, including synclines, anticlines, and monoclines
- c Dike
- d Stock
- e Laccolith

3 Name **ONE** or more of the principal ores of the following metals:

- a Copper
- b Iron
- c Lead
- d Zinc
- e Nickel

4 Identify **SEVEN** common minerals and give their uses, if any.

5 Identify **THREE** common local rocks and give their uses, if any.

6 Give a short account of the geological formation of the local region, including fossils.



LIFE SKILLS HOMEMAKER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|---|----------------------|
| <p>1 Describe how the smoke and CO₂ detectors in your home work and how to keep them in working order.</p> | <input type="text"/> |
| <p>2 Be able to describe the location, use, and maintenance of your home fire extinguisher, if you have one.</p> | <input type="text"/> |
| <p>3 If your home uses gas or propane for cooking or heating, describe how to light the stove, general safety precautions, how to detect a gas leak, and what to do if you think there is a gas leak.</p> | <input type="text"/> |
| <p>4 Review, and, if necessary, update your family's home fire safety plan. Be able to describe the plan to your Examiner.</p> | <input type="text"/> |
| <p>5 Working with the other members of your household, develop a weekly chore chart, assigning yourself at least THREE chores each week. Do the agreed chores to the satisfaction of the adults in your home for at least 3 months. These chores may include those needed to meet requirements below.</p> | <input type="text"/> |
| <p>6 Do all your own laundry, with appropriate sorting and folding, for a period of 6 months. Be able to explain how sorting decisions were made. If laundry is done at a laundromat, helping an adult with the washing would meet this requirement.</p> | <input type="text"/> |
| <p>7 Plan and cook at least THREE dinners that are well balanced meals for your family.</p> | <input type="text"/> |
| <p>8 With a budget set forth by your parents or guardians, create a grocery list for a week's worth of groceries for your family.</p> | <input type="text"/> |
| <p>9 Put away groceries in your home, demonstrating logic and order as well as correct food safety protocols, for a period of at least 3 months.</p> | <input type="text"/> |
| <p>10 Demonstrate kitchen cleaning after a home-cooked meal. Cleaning should include doing the dishes, wiping down the counter tops, cleaning the stove top, cleaning the microwave or any other appliances used in meal preparation, and sweeping and mopping the floor.</p> | <input type="text"/> |
| <p>11 Demonstrate how to clean a bathroom, including the toilet, floor, shower/tub, and sink. Know how often hand towels in a bathroom should be washed/changed and change them on that schedule for at least 3 months.</p> | <input type="text"/> |



**LIFE SKILLS
HOSPITALITY**

EARNED
EXAMINER & DATE

	COMPLETED EXAMINER & DATE
1 Understand and practice the proper etiquette of invitation and response.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
2 Demonstrate proper manners and presentation for greeting guests.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
3 Know how and why to properly set a formal place setting.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
4 Explain how cleanliness supports hospitality.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
5 Be able to make a signature drink and hors d'oeuvres.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
6 Be able to converse genially with your guests.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
7 Explain the importance of keeping politics out of hosting.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
8 Understand both being a good host and how that relates to being a good guest.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
9 Plan and prepare a budget for an event, meeting, luncheon, dinner, tea, or party for at least FIVE people, and then host the event.	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>



LIFE SKILLS

HOUSEWRIGHT

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

<p>1 Demonstrate the safe operation of TWO of the following:</p> <p><input type="checkbox"/> a Electric drill</p> <p><input type="checkbox"/> b Jigsaw</p> <p><input type="checkbox"/> c Circular saw</p> <p><input type="checkbox"/> d Band saw or scroll saw</p>	<input type="text"/>
<p>2 Demonstrate how to repair a leaky faucet. Discuss with your Examiner the fundamentals of indoor plumbing.</p>	<input type="text"/>
<p>3 Complete a painting project from conception to clean up. Know how to care for paintbrushes. Explain the different types of paint.</p>	<input type="text"/>
<p>4 Fix a blocked toilet.</p>	<input type="text"/>
<p>5 Properly hang a door, cabinet door, or gate. Understand the concepts of plumb, level, and square, and speak to why they are important in relation to doors.</p>	<input type="text"/>
<p>6 Demonstrate the maintenance required for single- and double-burner camp stoves. Replace the mantle on a lantern fueled by kerosene or white gas, or, if such a lantern is unavailable, show how you maintain whatever you use in your home for light if the electricity is unavailable for an extended period.</p>	<input type="text"/>
<p>7 Demonstrate the correct method for caring for both hand and electric woodworking tools.</p>	<input type="text"/>
<p>8 Complete a woodworking project (of your choice), making sure that it is stained and varnished. Explain the process of staining and varnishing.</p>	<input type="text"/>
<p>9 Know what immediate steps to take in the case of a burst water pipe or gas leak, and know how to turn off the power in your home.</p>	<input type="text"/>



LIFE SKILLS JOURNALIST

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- 1 Explain what a news item is and how to tell that something is news. []

- 2 Discuss the differences between print, television, and internet news. Know some of the differences between how journalists do their work in different news mediums. []

- 3 Discuss what criteria you should use when evaluating a news story to determine if it is unbiased and trustworthy. Describe briefly how to fact-check something that appears to be news. []

- 4 What is an editorial? Is this different from the news? Explain your answer to your patrol. []

- 5 Complete **TWO** of the following projects. You may do the same activity twice, but focus on different topics or events.. []
 - a** Write an article, not to exceed 500 words, on events that you have personally observed. For example, you might describe a sports event you attended or a performance your scout group gave at a nursing home.
 - b** Create a video where you are presenting a news story about your patrol or family. Include the who, what, where, when, and why information. Video should be 2-5 minutes in length.
 - c** Create a social media post that shares information, such as safety tips, camping ideas, things you have learned while scouting, or other information that you think your patrol should know. This post may include pictures, videos, or media choices approved by your scout leader.

- 6 Write a story about scoutcraft, such as a hike or camping experience. Publish it as part of a newsletter, blog post, or other media form for your group to read. []



LIFE SKILLS
MARTIAL ARTIST

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Demonstrate proficiency in **ONE** of the following:

a Single stick

e Judo

b Quarterstaff

f Karate

c Fencing

g Wrestling

d Boxing

h Any other recognized martial art

2 Give evidence that you have been training for the selected sport for a period of at least 3 months.

3 In your chosen sport, take part in an encounter under proper ring conditions, and be able to name and demonstrate the correct methods of attack and defense.



LIFE SKILLS METEOROLOGIST

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Explain to your Examiner how **EACH** of these is measured:

- | | |
|---|-------------------------------------|
| <input type="checkbox"/> a Wind force and direction | <input type="checkbox"/> d Pressure |
| <input type="checkbox"/> b Temperature | <input type="checkbox"/> e Rainfall |
| <input type="checkbox"/> c Cloud type and extent | <input type="checkbox"/> f Humidity |

2 Identify different cloud types, and describe them in a weather journal through words, drawings, or photographs.

3 Record the weather conditions in your journal, choosing **ONE** of these intervals:

- a Every day for 2 weeks
- b Once a week for 3 months

4 Explain to your Examiner how weather forecasts are created.

5 Explain to your Examiner the difference between high- and low-pressure systems in the atmosphere and how they relate to different types of weather.

6 Do at least **ONE** of the following:

- a Give a talk of at least 5 minutes to a group (such as your patrol or troop) explaining the rules for outdoor safety in cases of flash floods, tornadoes, and lightning. Before your talk, share your outline with your Examiner for approval.
- b Research the weather forecast before a scout outing or campout, and explain to your Examiner what the forecast is and what measures should be taken to assure safety and comfort during the outing. For example, if high heat is predicted, how should your patrol assure that there will be shade and appropriate hydration?
- c Research possible weather-related citizen-science opportunities near you, such as volunteer observing for the National Weather Service. Discuss these opportunities with your Examiner, and explain why, or why not, you may be interested in participating.

CONTINUED...

-
- 7** Research how seasonal weather, such as high and low temperatures and storm severity, has changed in your area over the last 20 years. Explain to your Examiner the trends in the data. What impact has the change had? For example, are there more frequent and severe storms? How does this affect humans and animals? Look at the change in climate on a global level, and have a discussion with your Examiner about what could be done about the changes and how long any actions would take to implement.
-





LIFE SKILLS
PERSONAL FINANCE

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

-
- 1** Describe for your Examiner the differences between the following types of accounts:
- a** Checking
 - b** Savings
 - c** Money market deposit account
 - d** Certificate of deposit
- 2** Explain the Federal Deposit Insurance Corporation (FDIC) to your Examiner. What types of accounts are covered? Why might you consider keeping your money in an FDIC-insured account?
- 3** Explain why you might prefer to keep money in one of the above accounts rather than an online payment service.
- 4** Do some research to identify a realistic income you might earn as a young adult after finishing school. It might be based on the starting income for a job that interests you, the median income for a single person household in your county or state, or some other appropriate basis for your estimate.
- 5** Working with the adults in your household and using the income estimate from Requirement 4, make a realistic budget for living on your own that would include common monthly and annual expenses. Be sure to include the following costs:
- a** Food
 - b** Shelter
 - c** Heat
 - d** Transportation
 - e** Medical expenses
 - f** Entertainment
 - g** Personal needs
- 6** Show how you could make room for savings in your proposed budget.
- 7** Show how you could make room for charitable giving in your proposed budget.
- 8** Discuss with your Examiner how your budget reflects your values.
-

CONTINUED ...

.....
9 Choose **ONE** of the following, and discuss with your Examiner what you learned.

a Create a budget for yourself, and track your expenses for 3 months.

b Track how you spend your time for 2 weeks, including all activities. Come up with categories for how you spent your time, such as sleeping, eating, schoolwork, and recreation. Figure out how much time you spent in each category.

.....
10 Discuss with your Examiner the importance of keeping emergency savings and explain **TWO** common ways to estimate how much emergency savings you need as an adult. How long would it take you to fund your emergency savings at the savings rate you proposed in Requirement 6?

.....
11 Explain to your Examiner **EACH** of the following:

a The idea of a risk pool and how it applies to insurance

b Basic types of insurance available and when you would use them

c The difference between term and whole life insurance and the purpose of each

d Why you might consider buying more auto insurance coverage than the minimum required by your state, if you can afford it

.....



LIFE SKILLS READER

EARNED
EXAMINER & DATE

Your Examiner will bear in mind the badge objectives: to encourage the habit of reading, to inspire the reading of a wide variety of books in order to discover what type of book you most enjoy, and to share the information learned through reading.

	COMPLETED EXAMINER & DATE
<p>1 Document that you have read at least 18 books in the previous 12 months (or less), including a variety of fiction and non-fiction, and covering at least FIVE genres. These may be any books, but consider whether there are books on subjects of special value or interest to you that you want to focus on.</p>	<input type="text"/>
<p>2 Include in your list of books at least FIVE books about people who have significantly different life experiences than you, such as a different race, gender, physical ability, religion, etc. Make sure at least ONE of these books is non-fiction. Explain to your Examiner what you learned from these books.</p>	<input type="text"/>
<p>3 Provide your list of the books, giving title and author, to your Examiner, and have a conversation with them to confirm that you understood each book and can share what you gained from reading them.</p>	<input type="text"/>
<p>4 Read a book, magazine or website that teaches you how to do something, such as knot tying, cooking, knitting, woodworking, etc. Complete a project and present it to your Examiner; or, if incomplete, share your experience working on the project. Why did you choose this project? How did the written material help you? Were there components of the written material that were confusing?</p>	<input type="text"/>
<p>5 Join or create a book club, and attend at least THREE meetings. Explain to your Examiner the structure of the book club, including how the books are chosen, how often the group meets, and what type of discussion takes place.</p>	<input type="text"/>
<p>6 Describe a book you enjoyed to your patrol, including an explanation of why you enjoyed it and why they might consider reading it.</p>	<input type="text"/>
<p>7 Do at least ONE of the following:</p> <p><input type="checkbox"/> a Meet with an author (of any type of published book) and interview them about their writing and publishing experience. What kind of research do they need to do for their writing? How long did the writing and publishing experience take? Ask additional appropriate questions to gain a good understanding of their experience.</p>	<input type="text"/>

CONTINUED ...

- b** Research how to contact one of your favorite authors, and then write and send a letter to express your appreciation and why you enjoy their book(s). Include an explanation of how their book(s) have affected your life.
-

8 Show knowledge of how you should care for your books.

9 Conduct **ONE or MORE** of the following service activities, or propose your own reading-related service activity and have it approved by your Examiner:

- a** Read at least 30 minutes to a group of young children.
- b** Read for a period of time to a house-bound person or one who is otherwise unable to read.
- c** Organize a book swap within your troop or between your troop and another group.
- d** Organize a book donation drive, and identify a local group that will receive the books.
- e** Volunteer in your school or public library.
- f** Build and curate your own Little Free Library.
-

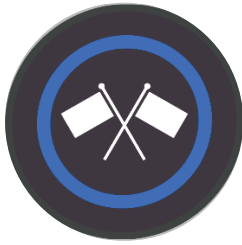


LIFE SKILLS
SHARPSHOOTER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

<p>1 Know the usual safety-first rules for rifle shooting, the parts of a rifle you use, and the steps for care and cleaning of your rifle.</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>2 Complete a basic firearms safety class approved by your state, and have an understanding of the safe handling of guns.</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>3 Know thoroughly the safety rules in the following situations:</p> <p><input type="checkbox"/> a Handling a supposedly empty gun</p> <p><input type="checkbox"/> b Cleaning a rifle</p> <p><input type="checkbox"/> c Loading</p> <p><input type="checkbox"/> d Unloading</p> <p><input type="checkbox"/> e Carrying in the woods or on the range</p> <p><input type="checkbox"/> f Climbing a fence</p>	<div style="border: 1px solid black; height: 130px; width: 100%;"></div>
<p>4 Demonstrate how to clean a rifle.</p>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>5 Explain the following:</p> <p><input type="checkbox"/> a Caliber</p> <p><input type="checkbox"/> b Rifling</p> <p><input type="checkbox"/> c Component parts of a cartridge</p> <p><input type="checkbox"/> d Common forms of sights</p>	<div style="border: 1px solid black; height: 80px; width: 100%;"></div>
<p>6 Judge over unknown ground:</p> <p><input type="checkbox"/> a FIVE distances 10 to 300 yards</p> <p><input type="checkbox"/> b FIVE distances 300 to 600 yards</p>	<div style="border: 1px solid black; height: 80px; width: 100%;"></div>
<p>7 Using a .22 caliber rifle, and shooting from a bench rest or supported prone position at 50 feet, fire FIVE groups (three shots per group) that can be covered by a quarter. Using these targets, explain how to adjust sights to zero.</p>	<div style="border: 1px solid black; height: 60px; width: 100%;"></div>
<p>8 Produce TWO certified targets that you have fired within the previous 4 weeks. Targets should have a minimum score of 9 on an A-32 target at 50 feet, or an equivalent as determined by your Examiner.</p>	<div style="border: 1px solid black; height: 60px; width: 100%;"></div>



LIFE SKILLS SIGNALER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|--|----------------------|
| <p>1 Correctly send and receive a message of at least 80 letters in semaphore.</p> | <input type="text"/> |
| <p>2 Send and receive a similar message in Morse.</p> | <input type="text"/> |
| <p>3 Explain to the Examiner when, where, and how Morse and semaphore codes can be used to best advantage, and describe several methods for simple field construction of communications devices for Morse and semaphore.</p> | <input type="text"/> |
| <p>4 Know how to indicate the following in semaphore:</p> <p><input type="checkbox"/> a Rest or space</p> <p><input type="checkbox"/> b Numerals</p> <p><input type="checkbox"/> c Error or attention</p> <p><input type="checkbox"/> d Ready to receive and end of transmission</p> <p><input type="checkbox"/> e Cancel or disregard previous signal</p> | <input type="text"/> |
| <p>5 Know how to indicate the following in Morse:</p> <p><input type="checkbox"/> a Start of transmission or start of new message</p> <p><input type="checkbox"/> b Error or correction</p> <p><input type="checkbox"/> c Please say again</p> <p><input type="checkbox"/> d Understood</p> <p><input type="checkbox"/> e End of contact</p> | <input type="text"/> |
| <p>6 Improvise FIVE methods of maintaining secure communications while using an open-air messaging system.</p> | <input type="text"/> |
| <p>7 Teach a patrol to perform wigwag Morse code or another distance signaling method.</p> | <input type="text"/> |
| <p>8 Research and discuss how Morse and semaphore, and later communication methods, changed human society by expanding military capabilities, commercial shipping, international stock trade, piracy, terrorism, and other human activities.</p> | <input type="text"/> |
| <p>9 Read a short biographical account of Guglielmo Marconi, and discuss why the system is called Morse code rather than Marconi code.</p> | <input type="text"/> |
| <p>10 Make up a signaling game and play it with your patrol. Share the game with national headquarters.</p> | <input type="text"/> |



LIFE SKILLS SWIMMER

EARNED
EXAMINER & DATE

These requirements should be done in order but do not need to be on the same day.

	COMPLETED EXAMINER & DATE
<p>1 Explain a safe swim plan for a scouting event. Be able to identify hazards you may encounter while swimming. Discuss prevention of, and treatment for, the following hazards:</p> <p><input type="checkbox"/> a Hypothermia</p> <p><input type="checkbox"/> b Dehydration</p> <p><input type="checkbox"/> c Sunburn</p> <p><input type="checkbox"/> d Cramps</p> <p><input type="checkbox"/> e Spinal injury</p> <p><input type="checkbox"/> f Insect and aquatic wildlife stings and bites</p> <p><input type="checkbox"/> g Cuts and scrapes</p> <p><input type="checkbox"/> h Dealing with unknown waters, including changing depths, currents, riptides, and other dangers</p>	<div style="border: 1px solid black; width: 100%; height: 100%;"></div>
<p>2 Perform a proctored swim test that must include the following:</p> <p><input type="checkbox"/> a Jump feet first into water over your head.</p> <p><input type="checkbox"/> b Swim for 100 yards continuously include at least ONE sharp turn.</p> <p><input type="checkbox"/> c Show ability to perform the elementary backstroke.</p> <p><input type="checkbox"/> d Tread water for at least 2 minutes.</p> <p><input type="checkbox"/> e Float face up for at least 1 minute.</p>	<div style="border: 1px solid black; width: 100%; height: 100%;"></div>
<p>3 Demonstrate TWO kinds of survival floating for a period of at least 2 minutes. Explain the effects of hypothermia. Demonstrate the HELP and huddle positions used while wearing a PFD.</p>	<div style="border: 1px solid black; width: 100%; height: 100%;"></div>
<p>4 Explain the dangers of helping a drowning person and why only those trained in lifesaving techniques should enter the water to attempt rescue.</p>	<div style="border: 1px solid black; width: 100%; height: 100%;"></div>
<p>5 In water over your head (depth not to exceed 10 feet), retrieve a weighted object from the bottom of a body of water.</p>	<div style="border: 1px solid black; width: 100%; height: 100%;"></div>



LIFE SKILLS TAILOR

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Sew a button onto a garment or decorative item.

2 Sew a patch or badge on your uniform with neat stitch work.

3 Assemble your own personal sewing box or kit. Include the following:

a Scissors

e Tape measure

b Pins

f Pincushion

c Needles

g Thimble

d Thread

4 Learn about different sizes and kinds of needles and threads.

5 Embroidery is an art that uses thread to decorate fabrics. Each stitch gives the work a different look or texture. Demonstrate **THREE** types of decorative embroidery stitches (e.g., satin stitch, back stitching, chain stitches, cross stitching), or create a design on fabric in cross stitch or embroidery.

6 Learn about different types of fabric and what they are used for. Common examples are cotton, rayon, silk, wool, burlap, and fleece. Fabrics have different widths, textures, colors and designs. If possible, visit a fabric store to learn about different kinds and costs of fabrics.

7 Mend an article of clothing or other item made of fabric. Explain the technique(s) you used and why you used them.

8 Use a fabric and technique you have learned about to make a pillow, blanket, messenger bag, tote bag, or other useful item.



LIFE SKILLS
ZOOLOGIST

EARNED
EXAMINER & DATE
[]

COMPLETED
EXAMINER & DATE

1 In a general way, explain the differences between plants and animals, invertebrates and vertebrates, and, among the vertebrates, distinguish between fish, amphibians, reptiles, birds, and mammals. []

2 Complete any **TWO** of the following sections. []

a Mammals

- 1 Describe 10 wild mammals. Know their life cycle and what they eat.
- 2 Name **TWO** mammals that can kill fruit trees.
- 3 Mention **THREE** mammals that are considered pests and why.
- 4 Describe game laws of your state and which apply to mammals.
- 5 Name and locate one national park that protects endangered species in the United States, and mention **FIVE** mammals protected there.

b Reptiles

- 1 Describe the life cycle of a reptile.
- 2 Know **THREE** types of turtles that live in your area.
- 3 What is the only poisonous lizard in the United States?
- 4 Name and describe the poisonous snakes of your state.

c Amphibians

- 1 Describe the life cycle of the frog or the toad.
- 2 Describe the wonderful power of changing color shown by tree frogs and which tree frogs are native to your state.
- 3 What is the difference in the external appearance of a salamander and a lizard?
- 4 Give a list of **FIVE** amphibians native to your area, and describe their coloring.

d Fish

- 1 Describe the habits of feeding and egg-laying in **ONE** of our native fish species.

CONTINUED ...

- 2** Describe a common fish that has no scales, one that has very small scales, and one that has comparatively large scales.
 - 3** Name **FIVE** much-used food fishes of the sea and **FIVE** fresh-water food fishes.
 - 4** Which fish are most commonly caught for food or sport in your area?
 - 5** Describe a local place where you have observed fish and which fish you observed there.
- e** Invertebrates (complete **EITHER** of the following)
- 1** Insects and spiders
 - a** How can we control the mosquito population in an area?
 - b** Collect, preserve, and identify 10 butterflies, five moths, 10 other insects, and three spiders.
 - c** Describe the habit that certain ants have of caring for aphids that secrete honeydew.
 - d** Describe the life cycle of one American solitary wasp.
 - e** Describe the life cycle of a hive or colony of honeybees.
 - 2** Coastal life
 - a** Name **FIVE** invertebrates used as food, and state where they are found.
 - b** What is the food of the starfish? How are starfish destroyed?
 - c** Name **FIVE** invertebrates you have seen at the shore, and give the locality where they were found.
 - d** Name **FIVE** invertebrates that live in the water only and **FIVE** that burrow in the mud or sand.
 - e** Know the treatment for jellyfish stings.
-



Design Your Own Badge

In your journey through scouting, you may want to explore skills not mentioned previously in this chapter. In this case, you may create your own badge.

If you want to design a badge that is only for yourself or your group, start with the instructions below in **Create your badge**. A custom badge is appropriate for local activities not available to Pathfinders in other parts of the country. Working with a small charity, rehabilitating local wildlife, or exploring a unique style of regional art are all excellent ideas. Once you complete the requirements and earn your badge, you may purchase a blank badge from the OSG Quartermaster store to decorate yourself.

However, if you would like to create a badge for all Pathfinders in OSG to earn, then complete the steps in **Distribute it nationally**. Is there a skill, a sport, or a fun hobby that is missing from the Pathfinder program? Propose a badge and make it so. Remember, only badges that are approved by national OSG headquarters may be counted towards pillar awards.

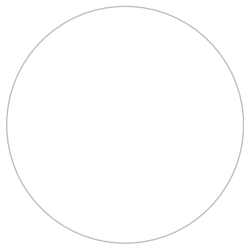
Create Your Badge

1. Consider what you believe would make an excellent Pathfinder badge and discuss it with your scoutmaster and your patrol.
2. Create a list of requirements to earn your new badge.
3. Be sure that your badge requirements address safety and relevant first aid to the area of interest.
4. Design the actual badge/patch. Use eight or fewer colors.
5. Present the badge to your group scoutmaster, and, if possible, to another Pathfinder patrol or someone that can give you feedback on your badge.
6. Make any necessary corrections to your badge.
7. Begin work on earning your badge.



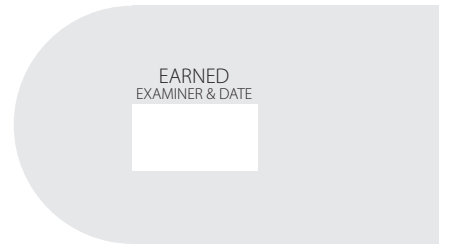
Distribute It Nationally

1. Complete all steps in **Create Your Badge**.
2. Consider how long it would take someone to earn your badge. Usually, 2-3 months of effort is a good challenge for most scouts, and enough time to really get into it. Adjust the requirements if needed.
3. Check that your badge is written in a way that scouts in other parts of the United States can earn it. If it requires local resources that are only in your area, it may be hard for other scouts to earn.
4. Have your regional commissioner or regional training commissioner review your badge, and use their feedback to improve your badge if necessary. Agree on which category it should be submitted for.
5. Submit your badge to our national headquarters team for review. If approved, they will add it to our program and make the badge available through the quartermaster. Be sure to include the badge's name, requirements, and suggested patch design.



CATEGORY: _____

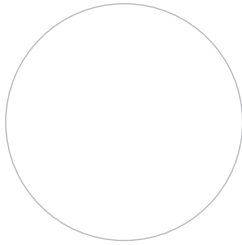
NAME: _____



EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

	COMPLETED EXAMINER & DATE
1	<input type="text"/>
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CATEGORY: _____

NAME: _____

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

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10



Senior Special Proficiency Badges

Senior special proficiency badges are designed to challenge you to dig deeper and learn more. Many of these badges have prerequisites, meaning that you must complete certain regular special proficiency badges before beginning these harder level badges. Pathfinders must be at least 14 years old to earn senior special proficiency badges.

Some senior special proficiency badges encourage scouts to consider career paths that use these skills. Are you interested in flying? Try the Aviator badge. Are you a fan of food? Become a Grubmaster. You can also directly assist your patrol or troop by working on the Camp Captain, Quartermaster, or Senior Navigator badges, among others.

Each of the senior special proficiency badges falls into one of the same four categories of Outdoor Skills, Civics and Community, Creative Arts, and Life Skills, and are similarly color-coded with green, red, gold, and blue, respectively. Senior badges are square instead of round. You may be required to earn certain senior level badges to complete the pillar awards of Torchbearer, Trailblazer, and Voyager.

Just like the special proficiency badges, you wear Civics and Community and Creative Arts senior special proficiency badges on the right sleeve, with Outdoor Skills and Life Skills on the left.

Use the following pages to record your progress on your senior special proficiency badges.



Senior Outdoor Skills

- Ancient Mariner
- Camp Captain
- Explorer
- Fly Fisher
- Grubmaster
- Quartermaster
- Sea Angler
- Senior Camp Engineer
- Senior Canoeist
- Senior Navigator
- Tracker
- Venturer

Senior Civics and Community

- Emergency Planner
- Home Health Aide
- Lifesaver
- Public Health
- Senior Advocate
- Senior Child Care
- Senior Guide

Senior Creative Arts

- Choreographer
- Crafter
- Composer
- Fiber Artist
- Indigenous Art Appreciation
- Master of Ceremonies
- Writer

Senior Life Skills

- Aviator
- Entrepreneur
- Map Maker
- Senior Athlete
- Senior Housewright
- Senior Personal Finance
- Senior Swimmer
- Senior Tailor



SENIOR OUTDOOR SKILLS ANCIENT MARINER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | COMPLETED
EXAMINER & DATE |
|---|------------------------------|
| 1 <i>PREREQ:</i> Have earned the Mariner proficiency badge. | <input type="text"/> |
| 2 Know the procedure for dealing with a crew member overboard. | <input type="text"/> |
| 3 Be able to read a chart, plot a position by THREE methods, and lay off a course, making allowances for variation and deviation of compass and tidal set. | <input type="text"/> |
| 4 Know the different types of buoys, lighthouses, and light vessels in general use, as well as the usual danger, storm, and fog signals. | <input type="text"/> |
| 5 Discuss the Beaufort wind and sea scales. Understand the use of a barometer in forecasting the weather. | <input type="text"/> |
| 6 Demonstrate how to take soundings by doing so at THREE or more points during a short journey. | <input type="text"/> |
| 7 List the differences between a mariner's compass and hiker's compass and explain the reasons for those differences. | <input type="text"/> |
| 8 Using a chart and tide table, be able to estimate the depth of water at any state of the tide for an area agreed upon with your Examiner. | <input type="text"/> |
| 9 Know the proper gear that should be carried in a sailing boat to ensure safety of the vessel under all conditions. | <input type="text"/> |
| 10 Organize and take charge of a patrol expedition of 48 hours minimum duration in a sailing or motorized boat. | <input type="text"/> |
| <input type="checkbox"/> a Prepare route with proper regard to weather, tides, and other appropriate conditions. | |
| <input type="checkbox"/> b Organize members of your patrol as the boat's crew. | |
| <input type="checkbox"/> c Take a round-trip journey to a point at least 10 miles from the point of embarkation. | |
| <input type="checkbox"/> d Keep a detailed log showing courses and distances. | |



SENIOR OUTDOOR SKILLS

CAMP CAPTAIN

EARNED
EXAMINER & DATE
COMPLETED
EXAMINER & DATE

1 *PREREQ:* Have earned the **Camper** proficiency badge.

2 *PREREQ:* Have camped with your troop or patrol at least 10 nights.

3 Teach low-impact camping and the “Leave No Trace” standards to a group of younger Pathfinders or Timberwolves.

4 Lead an overnight campout for your patrol or troop.

a Make a written plan for your camp, which must include the following:

- 1 **Safety:** Identify potential hazards by location, season, activities, and health conditions of participants, and record plans to address those hazards (as necessary).
- 2 **Location:** Identify the principal characteristics to look for when selecting either a patrol or troop camping site, and describe a rough plan for laying out your camp with regard to tents, kitchen, and other areas. Include locations and times of departure and return, as well as mode of travel to the destination.
- 3 **Participation:** List your attendees.
- 4 **Schedule:** Include planned activities, downtime, and sufficient prep time to prepare for each activity.
- 5 **Authorization:** Acquire permissions or permits, if necessary.
- 6 **Menu:** Discuss with your Examiner how your menu covers the number of scouts attending. Based on the menu, create an equipment list and a shopping list, and purchase the groceries required, with the help of an adult if necessary.
- 7 **Emergency plan:** Document local emergency services, extraction plan if there is a problem, and home contact responsible for notifying authorities on failure to return.

CONTINUED ...

- b** Present the plan to your patrol.
 - 1** Give your patrol members the opportunity to volunteer for activities based on their skill set and interests, such as planning day hikes from camp or cooking a special menu item.
 - 2** Adjust the plan based on their feedback
 - c** Lead your patrol on the campout from departure to returning home.
 - 1** Ensure satisfactory performance of all patrol members.
 - 2** Delegate tasks to your patrol members (e.g., cooking, cleaning, etc.), assuring equal and fair division of labor.
 - 3** If you are traveling separately, establish a communications chain and ensure that all members of your patrol have returned home safely.
 - d** After the campout, present a report to your Examiner, focusing on the following:
 - 1** General characteristics, advantages, and disadvantages of this site (e.g., ground, soil, trees, accessibility, and general suitability as a campsite)
 - 2** Participation of the members of your troop or patrol, including how well you delegated tasks
 - 3** How your experience could be adjusted based on different conditions:
 - a** Lightweight camping
 - b** Arriving by a different mode of transportation (e.g., by kayak or bicycle)
 - c** Varying the number of patrols attending
 - 4** Something you would do differently next time
-



SENIOR OUTDOOR SKILLS EXPLORER

EARNED
EXAMINER & DATE

The Explorer expedition must be a test of determination, courage, physical endurance, and show a high degree of cooperation among those taking part. If needed, the Examiner can, and should, adjust the distances (or any other requirement).

	COMPLETED EXAMINER & DATE
<p>1 <i>PREREQ:</i> Have earned at least one of the following proficiency badges: Backpacker, Nautical Camper, or Bicycle Camper.</p>	<input type="text"/>
<p>2 Discuss, at length, a plan for emergency extraction procedures and possible reasons to abandon your expedition.</p>	<input type="text"/>
<p>3 Plan and take part in an expedition of 2-8 Pathfinders and/or Rovers, including yourself. The expedition must meet the following requirements:</p> <p><input type="checkbox"/> a As much as possible, the expedition should take place in wilderness areas.</p> <p><input type="checkbox"/> b The expedition should last at least 4 days, and at least 3 nights must be spent camping. Members of the party must carry all necessary equipment and food and must prepare all meals.</p> <p><input type="checkbox"/> c All scouts in the party will take an equal part in planning and managing the expedition, but it is not necessary that all participants should be under test.</p> <p><input type="checkbox"/> d Each tested member of the party should keep a detailed log of the expedition, with a different emphasis for each log (e.g., weather, geography, history, architecture, archaeology, botany, ornithology).</p> <p><input type="checkbox"/> e The route, trip plan, and log assignments must have prior approval.</p> <p><input type="checkbox"/> f Each night should be spent at a different campsite, following the "Leave No Trace" model.</p> <p><input type="checkbox"/> g Distances travelled should meet or exceed the following:</p> <p><input type="radio"/> 1 30 hiking miles</p> <p><input type="radio"/> 2 50 miles paddling by river, or an equally difficult distance at sail on still or tidal water</p> <p><input type="radio"/> 3 75 miles on road bikes</p> <p><input type="radio"/> 4 40 miles on mountain bikes in off-road conditions</p> <p><input type="radio"/> 5 120 horseback miles</p>	<input type="text"/>

CONTINUED...

.....
4 Upon your return, present a report to your patrol or troop.
.....





SENIOR OUTDOOR SKILLS
FLY FISHER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

<p>1 <i>PREREQ:</i> Have earned the Angler proficiency badge.</p>	<input type="text"/>
<p>2 Be able to explain the dangers of wading, crumbling banks, and slippery rocks.</p>	<input type="text"/>
<p>3 Be able to explain and demonstrate safe casting procedures. Explain how to ensure you have an appropriate clearance to cast safely. Explain proper positioning, and describe what additional safety considerations to take when fly fishing with a partner.</p>	<input type="text"/>
<p>4 Demonstrate that you can judge the water depth and speed of the current. Explain the safe way to wade into or across a stream.</p>	<input type="text"/>
<p>5 Explain the importance of wading gear, including boots and belts. Explain what you would do if your waders filled with water.</p>	<input type="text"/>
<p>6 Understand the differences in the types of fishing licenses required for fly fishing, the requirements for obtaining one, and any laws or regulations in your area that govern fly fishing. This includes understanding seasons, catch limits, and restricted areas.</p>	<input type="text"/>
<p>7 Be able to recognize the most common fish you can catch via fly fishing in your area. Describe their appearance, seasonality, acceptable catch size, and best lure for each.</p>	<input type="text"/>
<p>8 Be able to describe characteristics of ideal fishing spots for each of the most common fly fishing game fish in your area. What features of the terrain or water indicate good possible habitats?</p>	<input type="text"/>
<p>9 Explain the differences in the rod, reel, and fishing line used for fly fishing versus conventional fishing. Explain the difference between the lead and the line.</p>	<input type="text"/>
<p>10 Choose ONE of the most common fly fishing game fish in your area and make a plan to catch some examples. For your Examiner, specify what fish you intend to catch, where you plan to go fishing, and what kind of lure you will use.</p>	<input type="text"/>
<p>11 Over the course of at least THREE outings, catch at least TWO of your target fish on each outing, for a total of at least SIX fish caught.</p>	<input type="text"/>
<p>12 For each catch, take a picture, and document what lure you used, your location, and your method for landing the fish.</p>	<input type="text"/>



SENIOR OUTDOOR SKILLS

GRUBMASTER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|--|----------------------|
| <p>1 <i>PREREQ:</i> Have earned the Cook proficiency badge.</p> | <input type="text"/> |
| <p>2 Plan and prepare a 3-course hot meal for a patrol, using a camp stove for at least ONE dish. Prepare and serve food punctually and hot, following the niceties of good manners. Patrol members may assist in the preparation, but you organize, direct, and participate in the meal's preparation.</p> | <input type="text"/> |
| <p>3 Plan and prepare a hot meal for a patrol using a Dutch oven. Cook dish(es) with wood coals or briquettes, and able to explain to your Examiner how to regulate the cooking temperature. Prepare and serve food punctually and hot, following the niceties of good manners.</p> | <input type="text"/> |
| <p>4 Plan and prepare, using an indoor stove top and oven, a meal that includes</p> <p><input type="checkbox"/> a A sauce</p> <p><input type="checkbox"/> b A roasted item</p> <p><input type="checkbox"/> c A baked dessert</p> | <input type="text"/> |
| <p>5 Create a dietetically sound menu, and prepare the associated budget, for a camp of 1 week duration. Assume you are serving two patrols of five scouts each. The Examiner will provide a cost limit for the exercise.</p> | <input type="text"/> |
| <p>6 Know how to check for food allergies and make appropriate accommodations. Discuss with your Examiner how meal planning changes to address the following food-related concerns:</p> <p><input type="checkbox"/> a Celiac or gluten-sensitivity</p> <p><input type="checkbox"/> b Diabetes</p> <p><input type="checkbox"/> c Peanut allergy</p> <p><input type="checkbox"/> d Corn allergy</p> | <input type="text"/> |



SENIOR OUTDOOR SKILLS QUARTERMASTER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

<p>1 Create and keep a portable first aid kit, sufficiently sized for weekend-long events with your patrol. Include a written inventory, dates of review, and what was used and replaced.</p>	<input type="text"/>
<p>2 Create an inventory of equipment/camping gear that is available to your troop. If your Pathfinder group maintains gear that is available for the whole troop to go camping, use that. Otherwise, make a list of what gear belongs to the troop and an additional list of what individual scouts would need to bring to go camping for at least 3 nights.</p>	<input type="text"/>
<p>3 Demonstrate that you know how to clean and store camping gear, including tents, sleeping bags, cooking equipment (such as stoves and fuel), and wood-cutting equipment (such as saws and axes). If your scout group relies on individuals to bring their own gear, this requirement can be completed through a conversation with your Examiner.</p>	<input type="text"/>
<p>4 Make or fix a piece of camping gear.</p>	<input type="text"/>
<p>5 Demonstrate the care and storage of cordage, including safety inspections, coiling, and whipping.</p>	<input type="text"/>
<p>6 Keep simple, efficient records of your equipment inventory— showing kit issues, returns, and repairs—for at least 6 months. If your group relies on individuals providing their own gear, you may instead demonstrate to your troop how to inspect their own gear for safety concerns, such as fuel supply and storage, condition of cordage, and identification of needed repairs.</p>	<input type="text"/>



SENIOR OUTDOOR SKILLS

SEA ANGLER

EARNED
EXAMINER & DATE

This badge has two options for demonstrating proficiency: fishing from the shore/pier and fishing from a boat. Knowledge of the safety and regulatory requirements for both are required.

	COMPLETED EXAMINER & DATE
1 <i>PREREQ:</i> Have earned the Angler proficiency badge.	<input type="text"/>
2 Be able to explain how to use an emergency weather radio, and explain the different kinds of signals, differences between warnings and alerts, and other notifications broadcasted by the National Weather Service.	<input type="text"/>
3 Be able to understand, interpret, and use tide charts. Be able to identify hazards that can be hidden by tides or cause additional risk in the changing tides, and explain the risks of each and what you can do to protect yourself and your vessel (if applicable).	<input type="text"/>
4 Understand and be able to explain safety considerations when using a boat for offshore fishing. What are the essential pieces of safety equipment to ensure are on board before embarking on a sea fishing trip?	<input type="text"/>
5 Know what to do in case of a jellyfish sting.	<input type="text"/>
6 Explain what to do if you catch something dangerous.	<input type="text"/>
7 Understand the differences in the types of saltwater fishing licenses, the requirements for obtaining one, and any laws or regulations in your area that govern saltwater fishing from the shore or a boat. This includes understanding seasons, catch limits for saltwater fish, restricted areas, and restricted or endangered sea life.	<input type="text"/>
8 Be able to recognize the FIVE most common sea life in the ocean in your area. Describe their appearance, seasonality, acceptable catch size, typical depth, and most appropriate bait for each.	<input type="text"/>
9 Be able to describe characteristics of ideal fishing spots for each of the five most common sea creatures in your area. What features of the terrain or water indicate good possible habitats?	<input type="text"/>
10 Explain to your Examiner how tides impact your fishing. Be able to identify sand bars, trenches, reefs, or other underwater physical land features that will impact the behavior of the tides and your fishing strategy. Explain the impact those features may have and how to mitigate or accommodate them.	<input type="text"/>

CONTINUED ...

11 Be able to explain what makes a sea fishing rod different from rods you would use in lakes or rivers. Be able to explain what adaptations you need to make in equipment, rod strength/weight, line weight, etc. for the different kinds of sea life you may be fishing for in your area.

12 Be able to describe equipment and techniques used for catching shellfish native to your area, such as crabs, lobsters, oysters, clams, or shrimp.

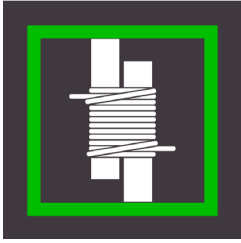
13 Be able to explain or demonstrate the proper use of a rod holder, and explain why it is important.

14 Be able to explain or demonstrate proper clean up and post-expedition inspection of your gear, and explain why cleaning is important.

15 Choose **ONE** of the five most common sea creatures in your area, and make a plan to catch some examples. For your Examiner, specify what creature you intend to catch, where you plan to go fishing, and what kind of bait you will use. Specify if you will be fishing from shore, pier, or a boat, and what kind of equipment you will use.

16 Over the course of at least **THREE** outings, catch at least **ONE** of your target sea creatures on each outing, for a total of at least **THREE** creatures caught.

17 For each catch, take a picture, and document what bait you used, your location, and your method for landing the creature.



SENIOR OUTDOOR SKILLS

SENIOR CAMP ENGINEER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 *PREREQ:* Have earned the **Camp Engineer** proficiency badge.

2 Gravity, the not-so-silent killer. Understand the first aid treatment for the following:

- a Fall from height
- b Lacerations
- c Puncture wounds
- d Crushed appendages, such as fingers or toes
- e Rope burns

3 Have or have knowledge of a well-equipped lashing kit. Discuss rope types, uses, and limitations.

4 Review the knots for the Camp Engineer special proficiency badge, and teach them to another scout. Learn a new lashing or lashing style, such as advanced, quick, or the figure eight lashing technique.

5 Understand mathematics of structure.

- a Be able to show estimating skills in distance, elevation, weight, and velocity or force.
- b Know the purpose of a diagonal brace, and show how to use one.
- c Discuss the forces applicable to your project.
 - 1 Gravity
 - 2 Wind load
 - 3 Occupancy

6 Understand and show ability to handle heavy and very heavy objects. Show ways to exercise leverage, reduce friction, and utilize teamwork to move objects safely, and utilize these techniques to move large objects in your engineering projects. Brain power must overcome obstacles.

CONTINUED..

7 Demonstrate appropriate use of the following anchorages:

- a Spanish windlass
- b Tree mooring with protection
- c Dead man's anchor
- d Log and picket
- e 3-2-1 picket

8 Understand the need for scale models and their use in the following:

- a Designing a project
- b Creating a build plan
- c Compiling a materials list

9 Build and demonstrate fully-functioning structures chosen from the categories below. Make either **THREE** full-sized examples or **TWO** full-sized examples and **TWO** models.

- a Tower/scaffolding
 - 1 Hourglass tower
 - 2 Four-pole or three-pole tower
 - 3 Camp gate
 - 4 Tree stand
- b Flagpole, temporary or permanent
- c Raft
- d Bridge

<input type="radio"/> 1 Rope	<input type="radio"/> 6 Seesaw
<input type="radio"/> 2 Suspension	<input type="radio"/> 7 A-frame
<input type="radio"/> 3 Draw	<input type="radio"/> 8 Abington
<input type="radio"/> 4 Trestle	<input type="radio"/> 9 Spring
<input type="radio"/> 5 Friction	<input type="radio"/> 10 Other
- e Catapult or trebuchet
- f Camp kitchen or dish station for semi-permanent use
- g Derrick, simple or complex



SENIOR OUTDOOR SKILLS

SENIOR CANOEIST

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | COMPLETED
EXAMINER & DATE |
|---|---|
| 1 <i>PREREQ:</i> Have earned the Canoeist proficiency badge. | <input type="text"/> |
| 2 Explain common canoeing hazards and injuries, and know the applicable first aid for treating them. | <input type="text"/> |
| 3 Describe fundamental elements of canoe design and what aspects of performance they affect. Among the design elements, be sure to address the following: | <input type="text"/> |
| <input type="checkbox"/> a Length | <input type="checkbox"/> e Freeboard |
| <input type="checkbox"/> b Beam | <input type="checkbox"/> f Bottom profile |
| <input type="checkbox"/> c Tumblehome | <input type="checkbox"/> g Initial and final stability |
| <input type="checkbox"/> d Rocker | |
| 4 Using ropes or straps, demonstrate how to load and secure a canoe onto a trailer or roof rack. | <input type="text"/> |
| 5 Demonstrate solo canoe handling while paddling on one side only. This demonstration should include these actions: | <input type="text"/> |
| <input type="checkbox"/> a Paddling forwards | |
| <input type="checkbox"/> b Paddling backwards | |
| <input type="checkbox"/> c Paddling sideways | |
| <input type="checkbox"/> d Turning left and right (without changing sides) | |
| 6 As rear or solo paddler, demonstrate a proper ferry angle (as determined by the speed of the current) to make a perpendicular crossing of moving water. | <input type="text"/> |
| 7 On Class I moving water, demonstrate eddying in and out as a rear or solo paddler. | <input type="text"/> |
| 8 Perform a repair or seasonal maintenance on a canoe. | <input type="text"/> |
| 9 Plan and lead a patrol or troop service project that improves a lake or waterway that your troop has paddled. | <input type="text"/> |

CONTINUED.

.....
10 Demonstrate how to pack personal and group gear for canoe camping, and how to load, balance, and secure it in your boat.

.....
11 Help plan and paddle a canoeing campaign of at least 2 nights in separate camps.

.....
12 In **ONE or MORE** trips, paddle a flatwater distance of at least 50 miles (count each downstream mile as 1/2 mile). Keep a log of your trip(s), including route taken, date and time of start and end, weather conditions during the journey, important landmarks or water features, and challenges encountered during the trip.
.....



SENIOR OUTDOOR SKILLS

SENIOR NAVIGATOR

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 *PREREQ:* Have earned the **Navigator** proficiency badge.

2 Do **ONE** of the following:

- a Set up a cross-country course of at least 2,000 meters long with at least **FIVE** control markers. Prepare the master map and control description sheet.
- b Set up a score orienteering course with 12 control points and a time limit of at least 60 minutes. Prepare the master map and control description sheet.

3 Teach orienteering and map making techniques to your patrol or troop.



SENIOR OUTDOOR SKILLS TRACKER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | COMPLETED
EXAMINER & DATE |
|--|------------------------------|
| <p>1 <i>PREREQ:</i> Have earned the Observer proficiency badge.</p> | <input type="text"/> |
| <p>2 Discuss your local, state, and federal hunting, trapping, and fishing regulations with your Examiner.</p> | <input type="text"/> |
| <p>3 Learn about predatory and dangerous animals in your locale and strategies for when human versus predator situations arise. Learn about the dangers of preparing and eating wild game.</p> | <input type="text"/> |
| <p>4 Be able to tie the firefighter's chair knot, and discuss how you would use it to assist in a wilderness rescue, if necessary.</p> | <input type="text"/> |
| <p>5 Discuss ways to focus your visual and observational powers with your Examiner. Commit at least 3 months to the practice of mindful observation to increase your mental acuity.</p> | <input type="text"/> |
| <p>6 Practice the art of anticipation. Use causality and knowledge to predict the actions of the quarry—animal or person—that you are following.</p> | <input type="text"/> |
| <p>7 Recognize and explain TWO different characteristics in each of three different human footprints, barefoot or shod. Learn and demonstrate at least TWO ways to disguise your trail.</p> | <input type="text"/> |
| <p>8 Be able to determine which direction the wind is blowing, and know why one should approach the quarry from downwind.</p> | <input type="text"/> |
| <p>9 Solve, with reasonable accuracy, three tracking stories in mud, sand, snow, or other suitable material.</p> | <input type="text"/> |
| <p>10 Show an ability to utilize stealth to achieve ONE of the following:</p> <p><input type="checkbox"/> a Elude someone tracking you by purposefully laying a trail and then concealing yourself unseen for a period of at least 5 minutes within sight and sound of other Pathfinders looking for you.</p> <p><input type="checkbox"/> b Be able to produce photographs, video, pelts, or meat of at least THREE animals that you have tracked and observed in their natural surroundings.</p> | <input type="text"/> |
| <p>11 Show how to construct at least THREE handmade snares from natural materials, and discuss with your Examiner the safe and humane use of snares.</p> | <input type="text"/> |



SENIOR OUTDOOR SKILLS VENTURER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|--|--|
| <p>1 <i>PREREQ:</i> Have earned the Ranger proficiency badge.</p> | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> |
| <p>2 Considering the skills you learned for the Ranger badge, and other badges, plan an adventure for yourself and at least two other Pathfinders from the following list, or propose another high-adventure type outing to your Examiner for approval.</p> <ul style="list-style-type: none"> <input type="checkbox"/> a An overnight snow-shoeing adventure <input type="checkbox"/> b Sea kayaking <input type="checkbox"/> c Mountaineering <input type="checkbox"/> d A horse-camping outing of at least 1 night <input type="checkbox"/> e Whitewater rafting <input type="checkbox"/> f Cross-country skiing <input type="checkbox"/> g Other (approved by Examiner) | <div style="border: 1px solid black; height: 240px; width: 100%;"></div> |
| <p>3 For the adventure that you select, determine what safety measures are needed, and create a written safety plan to be approved by your Examiner prior to the adventure.</p> | <div style="border: 1px solid black; height: 50px; width: 100%;"></div> |
| <p>4 Calculate the costs of your chosen adventure, and determine how those costs will be covered. Will you need a fundraising activity to cover the costs?</p> | <div style="border: 1px solid black; height: 50px; width: 100%;"></div> |
| <p>5 Explain to your Examiner the gear needed for your adventure and how you will obtain and care for that gear.</p> | <div style="border: 1px solid black; height: 50px; width: 100%;"></div> |
| <p>6 Create a written plan for transportation to and from your chosen adventure. Obtain agreement from those who may need to assist with transportation.</p> | <div style="border: 1px solid black; height: 50px; width: 100%;"></div> |
| <p>7 Create a piece of equipment from scratch that will be used on your chosen adventure.</p> | <div style="border: 1px solid black; height: 45px; width: 100%;"></div> |



SENIOR CIVICS AND COMMUNITY EMERGENCY PLANNER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- 1 Research different kinds of natural disasters and other emergencies. Which emergencies are common to your region? Where might the others occur?
- 2 With your family or your patrol, discuss the following. Write down your answer for each item.
- a How will you receive emergency alerts and warnings?
- b What is your family or household communication plan if you are not all in the same place when the emergency or disaster occurs?
- c Create a shelter plan for the following emergencies:
- 1 When you need to stay at home for 2 days without electricity
- 2 When you need to stay at home for 2 weeks without electricity
- 3 When your home is not available
- d Would you need to evacuate for the type of disaster you're thinking about? If so, where would you evacuate to and how would you get there (your route)?
- e Create a list of items for an emergency preparedness kit specific to the needs of one of the natural disasters that could occur in your area. Include a specific list of food items that should be included, taking into consideration the possibility that it may be harder to cook if there is no power.
- f Collect items that are already in your household to begin putting together your emergency kit. Make a plan on how you will obtain the rest of the items in the future. Make a note of which items in your kit may need to be replaced or reviewed for expiration on a regular basis, and make some sort of calendar entry or reminder system for how frequently you will review and maintain your emergency kit.
- g Determine how much water should be included in the emergency kit. Explain to your Examiner how many people you would supply, and how long that water is intended to last.
- h What are the specific needs of your household that should be considered for your emergency plan? For example, are pets included in your plan? Dietary needs? Medicines?

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- 3** Identify which local or state offices in your area focus on emergency preparedness. Reach out to one of those offices, or another local organization, to find out what volunteer opportunities exist.

-
- 4** Have a discussion with your Examiner on what actions you plan to take to be prepared for a possible emergency or natural disaster. If you were to move to or visit another part of the country or world, how would that affect your preparedness plans?
-



SENIOR CIVICS AND COMMUNITY

HOME HEALTH AIDE

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 As people age, they can be at risk for falling and getting hurt in their home. Name **THREE** things that can be done to reduce a person's risk of falling if they have poor balance or shuffle their feet when they walk. Know how and when to assist in the event of a fall. Learn when you need to call for help.

2 Durable Medical Equipment (DME) helps people move safely and independently at home. There are devices both large and small that can be used to make things easier for those with weakness or balance problems. Learn about **THREE** pieces of DME that a person may use. Explain what they are and why they are used.

3 A standard wheelchair is 26 inches wide. Measure the doorways, hallways, and bathrooms in your home and determine if a wheelchair, with a person seated in it, would fit through. Is there sufficient room to turn in tight spaces?

4 If you or one of your family members needed to use a wheelchair, could you get into your own home? Would you add a ramp, use an alternate entrance, or make another accommodation? If your home is already accessible, consider the accessibility of other places you frequently visit, and state how you could make them more wheelchair accessible.

5 Learn what a pressure injury or pressure ulcer is and why they occur. State **THREE** things that can be done to prevent pressure injuries and **ONE** way they are treated.

6 Be able to state **FIVE** signs and symptoms of a urinary tract infection (UTI) in an elderly person. Onset of a UTI can happen quickly in older adults, and the symptoms can be confused with other diseases or problems. It is vital to recognize the signs and help a sick person see a doctor to get antibiotics quickly.

7 Learn about professionals in elder care both in home health and in nursing homes. Be able to state the differences between these jobs:

a Home health nurse

c Physical therapist

b Occupational therapist

d Speech therapist

8 Interview someone who works in elder care, and learn why their work is important. In their opinion, what are the best and worst parts of the job? If possible, shadow them at work for a few hours. Report back about what you learn.



SENIOR CIVICS AND COMMUNITY LIFESAVER

EARNED
EXAMINER & DATE

Lifesaver must be re-passed each year for the Pathfinder to qualify to wear the badge.

	COMPLETED EXAMINER & DATE
<p>1 <i>PREREQ:</i> Have earned the Swimmer and First Aid proficiency badges.</p>	<input type="text"/>
<p>2 Explain the importance of personal safety, and explain basic techniques to avoid becoming injured yourself while performing lifesaving activities.</p>	<input type="text"/>
<p>3 Explain the method of rescue in the following scenarios:</p> <p><input type="checkbox"/> a House fire, first floor unconscious patient</p> <p><input type="checkbox"/> b Ice breaking</p> <p><input type="checkbox"/> c Car accident, with and without a fire</p> <p><input type="checkbox"/> d Contact with live electrical wires</p> <p><input type="checkbox"/> e Fall while hiking</p>	<input type="text"/>
<p>4 Recognize and prepare for rescue.</p> <p><input type="checkbox"/> a Understand and explain a Safe Swim Defense plan.</p> <p><input type="checkbox"/> b List risks or reasons that can commonly lead to drowning.</p> <p><input type="checkbox"/> c Describe the behaviors and signs of someone who is having trouble in the water or is actively drowning.</p> <p><input type="checkbox"/> d Explain why only professionally trained rescuers should swim after a victim during a rescue.</p>	<input type="text"/>
<p>5 Demonstrate swimming fitness.</p> <p><input type="checkbox"/> a Swim 500 yards continuously.</p> <p><input type="checkbox"/> b Tread water for 10 minutes.</p> <p><input type="checkbox"/> c Surface dive to a depth of 7 feet to retrieve a 10-pound object. Return to the surface and swim 20 yards holding the object above your head.</p> <p><input type="checkbox"/> d Swim 50 yards attired in normal street clothes (shirt, trousers, etc.) and undress in the water.</p> <p><input type="checkbox"/> e Exit the water of a pool without using a ladder or steps.</p>	<input type="text"/>

CONTINUED...



SENIOR CIVICS AND COMMUNITY PUBLIC HEALTH

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Know what is meant by public health—what it is and how it has developed.

2 Have a general knowledge of the human immune system and how it works.

3 Have a knowledge of the modern methods of disease prevention and what public programs are available to prevent disease, including sexually-transmitted infections.

4 Make a plan for a 3-day campout with a large group of 100 scouts or more. Assume your campsite does not have on-site restrooms or kitchen. How will you:

- a** Manage human waste?
- b** Create handwashing stations to help prevent the spread of disease?
- c** Keep food at an appropriate temperature and safe from insects?
- d** Safely store potable water?
- e** Dispose of waste from cooking and camp garbage?

5 Know of at least **TWO** local food pantries or food programs to help those in need.

6 Learn how local water sources are tested for safety, and know the unsafe levels for **THREE** water contaminants common in your area.

7 Describe methods used in your town/city to ensure sanitary storage, collection, and disposal of garbage, and understand the importance of such measures. Know if your county has a recycling program and how that affects local waste disposal.

8 Learn how public health is managed in your community.

- a** What are the primary jobs your city, county, or state department of health perform?
- b** Know what services you can receive at your local health department.
- c** Know what access there is in your town, city, or county to health care for those without health insurance. Does your town have free clinics or a health department? What services do they offer, and how do you qualify for services?



SENIOR CIVICS AND COMMUNITY

SENIOR ADVOCATE

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- 1 Understand and discuss advocacy with your Examiner. Advocacy in all its forms seeks to ensure that people, particularly those who are most vulnerable in society, are able to have their voice heard on issues that are important to them, have their rights defended and safeguarded, and have their views and wishes genuinely considered when decisions are being made about their lives.
- 2 Identify a cause that you feel is important to raise awareness about, and a person, group, or category you wish to advocate for. Your mission could involve fighting discrimination, housing the homeless, rescuing animals, improving the environment, or other issues of social justice. Learn about your chosen topic, then tell your scout group about the topic in a way that engages your peers and gets them interested in your cause.
- 3 Learn about who else is working on your chosen cause. What work is already being done? Is this something you can help with? If your cause involves a group of people, learn how they want others to support their advocacy efforts. What do they want? It is important to remember that what they want for themselves is more important than what you want for them.
- 4 Help organize an event for your cause. This could be a bake sale to benefit the cause, an information session, or something else agreed upon by you and your Examiner. If your chosen issue has an upcoming event or other way you can become involved, you may also contact the organizers to see how you can get involved.
- 5 Create advertisements for your event (or the one you will attend) and invite others to come. Be sure to find several different ways to spread this information to others.
- 6 Write about your topic to spread the word about the importance of your issue. Write a blog post, letter to the editor of your local paper, or a letter to a member of government at the right level to help your cause. Be sure to share why you feel strongly about the issue, and what can be done to help.



SENIOR CIVICS AND COMMUNITY
SENIOR CHILD CARE

EARNED
EXAMINER & DATE

	COMPLETED EXAMINER & DATE
1 <i>PREREQ:</i> Have earned the Child Care proficiency badge	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>
2 Know how CPR and choking are different for infants and toddlers, and demonstrate what to do in each of these situations on a dummy or doll.	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>
3 Take primary responsibility for caring for a child under the age of four for at least 2 hours, and give a report to your patrol on the experience.	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>
4 State THREE positive ways to redirect a young child who is playing unsafely toward safer activities.	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>
5 Know what to do when a child is having a meltdown.	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>
6 Know the safety issues involved in caring for children with a variety of needs (e.g., food allergies, autism, ADHD, cerebral palsy). Know how to safely play with any child.	<div style="border: 1px solid black; height: 30px; width: 100%;"></div>



SENIOR CIVICS AND COMMUNITY SENIOR GUIDE

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

<p>1 <i>PREREQ:</i> Have earned the Guide proficiency badge.</p>	<input type="text"/>
<p>2 Demonstrate a reasonable knowledge of the history of your town or city as well as nearby places of historical or cultural interest.</p>	<input type="text"/>
<p>3 Have a detailed knowledge of locations for hospitals, houses of worship, and schools.</p>	<input type="text"/>
<p>4 Have knowledge of ALL gas stations within 3 miles of your home.</p>	<input type="text"/>
<p>5 Satisfy your Examiner that you have working knowledge of the public transit options available within 10 miles of your home.</p>	<input type="text"/>
<p>6 Have a general knowledge of the country within 30 miles of your house. Be able to guide strangers to districts, towns, or cities within the perimeter.</p>	<input type="text"/>
<p>7 Provide accurate directions to your Examiner or your scoutmaster, without a map, to a location 5–10 miles from your scout meeting place.</p>	<input type="text"/>
<p>8 Given a camping site chosen by your Examiner, demonstrate that you can find, and have contact information for, the nearby hospital, urgent care center, and the responsible park ranger or equivalent.</p>	<input type="text"/>
<p>9 Choose a good meeting point for a carpool for your patrol. Location should be convenient to your patrol members' homes and should take into account the planned destination.</p>	<input type="text"/>



SENIOR CREATIVE ARTS CHOREOGRAPHER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|---|----------------------|
| <p>1 <i>PREREQ:</i> Have earned the Dancer proficiency badge.</p> | <input type="text"/> |
| <p>2 Create and perform a new solo dance, at least 2 minutes in length, to a song of your choice, by arranging movements in a specific sequence.</p> | <input type="text"/> |
| <p>3 Create and perform a new pair or group dance, at least 2 minutes in length, to a song of your choice, by arranging movements in a specific sequence.</p> | <input type="text"/> |
| <p>4 With drawings, digital programs, or actual construction, design the costume that you feel goes best with the dances you created for Requirements 2 and 3.</p> | <input type="text"/> |
| <p>5 Explain how music style, costumes, and dance style fit together to create an overall theme for artistic expression. Give examples of good fit and bad fit between these three things. For example, what are dance styles and costumes that go well with a slow sad song? What would be a bad choice of dance style and/or costume for the same piece of music? Give at least SIX examples. You may give examples of costumes from catalogs to demonstrate this fit. Be prepared to play the music as part of your explanation for your Examiner.</p> | <input type="text"/> |
| <p>6 Teach a set of complex dance moves to a group. This group could be your patrol, a group of younger scouts, or another group of participants. The moves may be completely original, a previously published piece, or another set of dance moves that you have previously learned. Perform the dance to the appropriate music with your group.</p> | <input type="text"/> |
| <p>7 Explore and explain to your Examiner at least FIVE types of job opportunities that exist for professional choreographers and dancers.</p> | <input type="text"/> |



**SENIOR CREATIVE ARTS
CRAFTER**

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- 1** Complete **FIVE** projects, each chosen from a different category below, and present them to your scout leader for review.
- a Tie-dying:** Make a tie-dyed scarf or shirt using **TWO** kinds of tying.
 - b Block Printing:** Make an original design for a block print unit using an image you create yourself. Apply to a bag or other item in one color using oil paint or dyes.
 - c Stenciling:** Make an original stencil design for a border of your own design. Apply in two colors to a bag, pillowcase, or scarf using oil paint or dyes.
 - d Crochet, Cross-stitch, Embroidery:** Draw a border of your own design on paper. Apply the design to a towel in crochet, cross-stitch, or embroidery.
 - e Weaving, Baskets:** Design a basket shape with its widest dimension at least 6 inches, and make the basket.
 - f Appliqué:** Design an appliqué unit in a 7-inch square that might be applied to a t-shirt, a bag, or a square for a patchwork quilt.
 - g Pottery:** Design a bowl, vase, or sculpture. Create your design to scale.
 - h Posters:** Design a poster for your scout group that illustrates some part of the scout law or a scouting activity. Poster should be at least 9 by 12 inches and should consist of a simple illustration and at least **THREE** words of lettering. Finish in crayon, watercolor, pen and ink, tempera, or other appropriate art style.
 - i Painting:** Paint a piece of pottery, plate, or cup with a design of your own creation.



SENIOR CREATIVE ARTS COMPOSER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 *PREREQ:* Have earned the **Musician** proficiency badge.

2 Working with a Mentor, compose an original musical work. The new composition must be transmissible in either written form or aurally, by rote, and must demonstrate the following objectives to the satisfaction of your Mentor:

- a** Ability to imagine an outcome and find the appropriate musical techniques to approximate that outcome, and understand the trade-offs presented by different techniques
- b** An understanding of the principles of rhythm and/or pitch used to create the desired effects
- c** Awareness of the relationship of the styles or technical aspects of the final composition to world musical traditions
- d** Competent understanding of the technical aspects of the method used to transmit the finished work, whether aural or written
- e** Ability to arrange a performance of the work, sharing information to other musicians (if any are involved) as necessary for them to understand the work and how it is intended to be performed
- f** An iterative learning process throughout the mentorship where the scout has achieved a deeper understanding of music and composition

3 Perform your composition for your patrol, either live or in a prerecorded format.



SENIOR CREATIVE ARTS

FIBER ARTIST

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- 1 Explain the pros and cons of using different types of yarn in a project and when you would use **EACH** of the following kinds of yarn for a project:

- a** Cotton
- b** Wool
- c** Acrylic
- d** Blends

- 2 Crochet, knit, or weave an item that the scout can wear, such as a hat, scarf or sweater, and add decorations as you desire.

- 3 Using the appropriate yarn, crochet, knit or weave a useful item, such as a washcloth, pot scrubber, or shopping bag.

- 4 Crochet, knit, or weave an item to donate. Examples could include a hat for neonatal intensive care unit (NICU) or chemo patients, scarves for your local shelter, or something else appropriate to donate.

- 5 Find **FIVE** images of fiber art and/or art created with yarn, whether gallery or street art, like "yarn bombing." Discuss the relationship between the art you found and the creative designs you used to earn this badge.



SENIOR CREATIVE ARTS
INDIGENOUS ART
APPRECIATION

EARNED
 EXAMINER & DATE

	COMPLETED EXAMINER & DATE
<p>1 Learn about a local nation of Native Americans or Indigenous people who have lived or currently live in your area. Visit a museum or event to learn about them and the types of art they create.</p>	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
<p>2 Create a paper or digital scrapbook of art made by Native Americans or Indigenous people of North America or Hawai'i. For each example you show, state the tribe, and, if possible, name the artist. Be sure to include the following types of artwork:</p> <ul style="list-style-type: none"> <input type="checkbox"/> a Clothing <input type="checkbox"/> b Painting <input type="checkbox"/> c Drawing <input type="checkbox"/> d Sculpture <input type="checkbox"/> e Carving <input type="checkbox"/> f Jewelry 	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
<p>3 Learn about the difference between appreciation and appropriation. Appropriation is when those in the dominant culture take art, symbols, clothing, or other concepts from those who have been oppressed and use them for their own purposes. Do your own research to learn more about how appropriation is a problem, and present it to your group.</p>	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
<p>4 Go further by learning how at least ONE type of art is made by Native Americans or Indigenous people. Answer a question you have about the art. For example, how are totem poles made and why are they important? How do jingle dancers make their regalia? Share what you learn with your Examiner or patrol. Be sure to find authentic Native American sources for your research by interviewing a member of the nation, watching videos, or reading materials written by a member of the nation you are studying.</p>	<div style="border: 1px solid black; width: 100%; height: 40px;"></div>



SENIOR CREATIVE ARTS

MASTER OF CEREMONIES

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 *PREREQ:* Have earned the **Entertainer** proficiency badge.

2 Run a campfire at a group campout, Moot, Hullabaloo, or similar type of large, organized event. The campfire must last at least ½ hour and involve **FOUR** or more performances of varying types.

3 Recruit performers, approve their material, and schedule the performances for best effect. Organization could include alternating between types of performances (such as songs and skits) or by the age of the performers. Coordinate between all participants leading up to the event.

4 Act as campfire host, following traditional campfire structure (including opening and closing). Introduce the performances and entertain the audience between acts. Keep the entertainment moving along, using jokes, stories, and announcements(!) to fill time while the performers move into position. Make each performer feel valued and supported while keeping the audience engaged.

5 Following the campfire, explain to your Examiner why you organized the event as you did, and describe the challenges you encountered during both planning and production. Name at least **ONE** thing that went wrong during the event itself and how you responded to it.



SENIOR CREATIVE ARTS WRITER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 Complete at least **FOUR** of the following:

- a** Compose a poem of at least 10 lines. Discuss its meaning with your Examiner.
- b** Write a descriptive essay of at least 500 words on a topic that relates to scouting.
- c** Write a review at least five paragraphs long on a favorite book, play, or other work of literature.
- d** Write a play or dramatic sketch lasting at least 10 minutes.
- e** Interview someone at least 10 years older than you and then summarize it, including the questions asked and the essence of the answers. This does not require a full transcription, but your Examiner should have a good understanding of what was discussed.
- f** Write a short story of at least 600 words. Include descriptions of the character(s), plot, setting, and action/conflict.
- g** Write a newspaper-style article and discuss it with your Examiner. Explain why you chose that topic, how you found the information, who you talked to, and what information you decided not to include in the final story.
- h** Create a piece of technical writing, such as documentation of a process, a user manual for a piece of equipment, or instructions on how to assemble or create something.

2 Research and explain to your Examiner how the royalty system works and what the difference is between a book advance and royalties.

3 Research and explain to your Examiner how copyright works in the United States, including when copyright goes into effect, how long it lasts, what rights copyright grants, and what is not protected by copyright.

4 Explore and explain to your Examiner the different ways a written work can be published, including traditional publishing, print-on-demand, and self-publishing. Explain which option might be appropriate depending on the type of material that has been prepared for publishing.

5 Research and explain to your Examiner **FIVE** ways that people can make money from writing. Include non-fiction as well as fiction, and electronic as well as print publishing.



SENIOR LIFE SKILLS

AVIATOR

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|---|----------------------|
| <p>1 Demonstrate knowledge of the process of generating aerodynamic lift, including the four forces that act on an aircraft in flight.</p> | <input type="text"/> |
| <p>2 Explain the difference between fixed-wing and rotary aircraft, focusing on the advantages of each.</p> | <input type="text"/> |
| <p>3 Make a working model of any heavier-than-air machine. Model should fly at least 25 yards. Alternately, build a kite that will stay aloft for 10 minutes.</p> | <input type="text"/> |
| <p>4 Research the history of aviation, including the life of at least ONE pioneer in the field, and report on that person's contributions.</p> | <input type="text"/> |
| <p>5 Learn how to read an aeronautical chart, and demonstrate how to measure the true course and distance of a flight, as well as its reciprocal course.</p> | <input type="text"/> |
| <p>6 Identify at least FOUR different kinds of pilot's licenses, and explain the differences between them. Explain an instrument rating, its benefit, and what is required to obtain one.</p> | <input type="text"/> |
| <p>7 Understand who regulates civil aviation both in your state and at the federal level, and identify at least TWO things those agencies are doing to make the industry safer or more efficient.</p> | <input type="text"/> |
| <p>8 Explain how the aviation industry contributes to climate change, and how climate change in turn may impact the industry.</p> | <input type="text"/> |
| <p>9 Identify at least THREE careers in aviation you could pursue, and the first steps toward each.</p> | <input type="text"/> |
| <p>10 Do any TWO of the following:</p> <p><input type="checkbox"/> a Take a flight in an aircraft. Record the date, departure, and arrival locations, type of aircraft, flight time, cruising altitude, objects you see on the land and in the air, and your overall impressions of the flight.</p> <p><input type="checkbox"/> b Take a flying lesson from an accredited school, organization, or instructor. Present a report to your patrol, focusing on the skills you studied and the challenges beginner pilots face.</p> | <input type="text"/> |

- c** Track and log flights above your city on at least **FIVE** separate occasions over a 3-month period. Begin with your own visual observations, and check your notes against a flight-tracker app or website. Where are the planes over your head coming from, and where are they going? What kind of aviation do they represent?
 - d** Create a competition among your patrol using the model you built for Requirement 3. Declare winners in total distance, flight time, and one other metric of your choice.
 - e** Tour an airport control tower, visit a museum focusing on aviation, or attend an air show. Report on your experience to your Examiner.
-



SENIOR LIFE SKILLS

ENTREPRENEUR

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- 1 Alone, with the help of another scout, or with your patrol, come up with a product or service you would like to sell. This could be selling candy you will make, a tutoring service, lawn care services, or something else you can provide.
- 2 Figure out the expenses that your business will experience. Look at both start up cost and on-going expenses. For example, a start-up cost would include purchasing ingredients for baked goods, and on-going expenses would include equipment repairs.
- 3 Discuss the various methods available to you to fund the startup of your business.
- 4 Name your business and create a logo. Put the logo on fliers, or use it to create a web-based presence on any platform approved by your parents/guardians and scoutmaster. If doing this badge as a patrol, each scout should create a post or flyer, though they may use the same name and logo created by the group.
- 5 Run your business for at least 2-3 months and tell your patrol and scout leader about your experience. Present a list of expenses and profits, and know how much profit your company generated after expenses are taken out. Be able to explain if your company was a success and some things you learned along the way. Discuss any unexpected expenses or issues that occurred while running your business.



SENIOR LIFE SKILLS MAP MAKER

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 While in the field, use triangulation with a prismatic compass or plane table to make a map of an area of about 40 acres. Approximate a scale of 1:4,000. The area, chosen by the Examiner, should include several prominent features that would help a map user get their bearings. In a rural or suburban setting such features may include fields, forests, ponds, or notable buildings. In an urban setting, such features may include important buildings, significant roads, landmarks, and other notable distinguishing features.

2 With compass and field book, make a road map of 2 miles of road, showing all main features and objects within a reasonable distance on either side of the road. Scale should be 4 inches to the mile (1:15,840). The field book must be given to the Examiner for review and approval.

3 Research how to enlarge—by hand—a portion of a topographic map from 1:50,000 to a scale of 1:21,000, and be able to explain the basic mathematics involved. Discuss how to enlarge the map using a photocopier or scanner.

4 Draw a line between two points on a 1:50,000 topographic map, and translate that to a cutaway side view.

5 Show a working knowledge of map scales.

6 Understand the difference between true north and magnetic north, and, using a compass, be able to account for declination on a map.



SENIOR LIFE SKILLS

SENIOR ATHLETE

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 *PREREQ:* Have earned the **Athlete** proficiency badge.

2 Know the dangers of overuse injuries and the need for a competitor to rest.

3 Know about the dangers of performance-enhancing drugs. What are some examples? What are the consequences of drug use on both an athlete's health and their sport? Discuss with your Examiner.

4 Show an understanding of the foods that an athlete needs to perform their best. Develop a nutrition plan for optimum performance, and follow your plan for a full season.

5 While earning this badge, continue to participate as a member of an organized sport, demonstrating leadership ability, and earning recognition from your coach or teammates as a good team player. Show an ability to perform under pressure.

6 Set a goal for yourself in your chosen sport, and, working with a coach or other trained professional, develop a training plan to meet that goal over a period of at least 3 months. Track your progress toward your goal, and share the results with your Examiner.

7 In a regional, local, national, or international meet, match, tournament, or game, compete at an advanced level of competency in your chosen sport. Discuss the rigors of competition and the effects it has on competitors.

8 For at least 1 season, take on at least **ONE** task that helps your team, league, or association. Your role should be apart from your participation as a competitor. Work with your coach or association officials to determine what is appropriate. Some examples might be maintaining equipment, cleaning a playing field after events, helping with administration, or fundraising.

9 Working with your Examiner, find a book or article on coaching. Read and discuss with your Examiner. Then teach a friend or teammate a skill from your chosen sport until they can practice it confidently on their own. Be prepared to discuss with your Examiner what you learned.

CONTINUED...

10 Research and explain to your Examiner the available options for amateur and professional competition in your chosen sport, and what is typically required to reach the highest levels of competition.

- a** For professional sports, be able to discuss farm teams or other interim roles athletes may be expected to take before qualifying for a place on a professional team, and what working and living conditions are like for participants.
- b** Describe how athletes at the highest levels of competition for your sport are paid, whether that is by salary, corporate sponsorship, or other methods.
- c** Be able to describe what a winner-takes-all market is in economics. Explain how these ideas apply to professional activity in your sport.
-



SENIOR LIFE SKILLS

SENIOR HOUSEWRIGHT

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

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|--|----------------------|
| <p>1 <i>PREREQ:</i> Have earned the Housewright and Architect proficiency badges.</p> | <input type="text"/> |
| <p>2 Demonstrate knowledge of workplace safety and how to establish a safe working area.</p> | <input type="text"/> |
| <p>3 Replace an electrical switch or outlet, or re-wire a light fixture or lamp. Discuss basic electrical theory.</p> | <input type="text"/> |
| <p>4 Replace a toilet or rebuild the tank innards.</p> | <input type="text"/> |
| <p>5 Build or repair a chair. Discuss why chairs fail, the implications of chair failure and what we can learn regarding force and care.</p> | <input type="text"/> |
| <p>6 Construct and use a simple scaffolding, and discuss the difficulties with, and solutions for, accessing areas that are out of reach.</p> | <input type="text"/> |
| <p>7 Tour a building site, renovation construction site, woodshop, plumbing or electrical supply house, or manufacturing facility. Write a short report of your tour.</p> | <input type="text"/> |
| <p>8 Discuss with your Examiner how to learn a new skill when have no experience, and then take on a small project, such as ONE of the following:</p> <p><input type="checkbox"/> a Take a home improvement book of your choice from your local library, read it, and report back to your Examiner about the new skills you have learned. Be able to learn a new skill in this way.</p> <p><input type="checkbox"/> b Watch an online video explaining what you are trying to learn, then do it.</p> <p><input type="checkbox"/> c Apprentice with someone who knows what you want to learn, and learn from them.</p> | <input type="text"/> |
| <p>9 Help in a major home improvement project. Assist in an advanced way, showing participation in both the planning and construction phases. Your project should take more than a day's work. Work with your Examiner to determine a good project.</p> | <input type="text"/> |



SENIOR LIFE SKILLS
SENIOR PERSONAL FINANCE

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

- | | |
|---|---|
| <p>1 <i>PREREQ:</i> Have earned the Personal Finance proficiency badge.</p> | <div style="border: 1px solid black; width: 100%; height: 100%;"></div> |
| <p>2 Describe for your Examiner the differences between the following types of accounts:</p> <ul style="list-style-type: none"> <input type="checkbox"/> a Credit card <input type="checkbox"/> b Personal loan <input type="checkbox"/> c Mortgage <input type="checkbox"/> d Brokerage account <input type="checkbox"/> e Brokerage margin account | <div style="border: 1px solid black; width: 100%; height: 100%;"></div> |
| <p>3 Explain to your Examiner what a credit score is and the factors that influence credit scores.</p> | <div style="border: 1px solid black; width: 100%; height: 100%;"></div> |
| <p>4 Describe THREE ways to improve your credit score.</p> | <div style="border: 1px solid black; width: 100%; height: 100%;"></div> |
| <p>5 Describe to your Examiner how your credit score influences the cost for you to borrow money.</p> | <div style="border: 1px solid black; width: 100%; height: 100%;"></div> |
| <p>6 Explain why you should be skeptical of a person or company who claims they can help you improve your credit score.</p> | <div style="border: 1px solid black; width: 100%; height: 100%;"></div> |
| <p>7 Describe for your Examiner the difference between fixed-rate and variable-rate interest.</p> | <div style="border: 1px solid black; width: 100%; height: 100%;"></div> |
| <p>8 Describe what a benchmark rate is, and how it is used to determine interest payments.</p> | <div style="border: 1px solid black; width: 100%; height: 100%;"></div> |
| <p>9 Describe the difference between secured and unsecured debt, and provide examples of each. Why might you choose one over another, depending on the need?</p> | <div style="border: 1px solid black; width: 100%; height: 100%;"></div> |
| <p>10 Look up current interest rates for 15- and 30-year mortgages, both variable and fixed, as well as current credit card rates and payday lender rates. Discuss with your Examiner why these rates are different.</p> | <div style="border: 1px solid black; width: 100%; height: 100%;"></div> |
| <p>11 Describe for your Examiner the difference between simple and compound interest.</p> | <div style="border: 1px solid black; width: 100%; height: 100%;"></div> |

CONTINUED ...

12 Provide the formula for calculating compound interest. Explain each of the variables and how to use the formula.

13 Complete **EACH** of the following calculations. Show your work, and discuss your results with your Examiner.

a Use the compound interest formula to calculate how long it would take to pay off \$500 debt on a credit card by making the minimum required monthly payments. Use the terms from an actual credit card for the calculation.

b Calculate how much money you would have if you were able to invest \$100 per month over 10 years at an annual return of 6%. Be able to present how much money was invested, how much return you would receive, and the total value at the end of 10 years. What percent of the total value after 10 years is the return from your investment?

14 Complete **EACH** of the following calculations. Show your work, and discuss your results with your Examiner. On-line calculators or spreadsheets may be used.

a Calculate how much money you would owe at the beginning of repayment if you borrowed \$10,000 at 5.5% simple annual interest rate to pay for a 4-year college that requires repayment beginning 1 year after graduation. Assume simple interest, with no deferral—in other words, when you start paying the loan, you need to pay the original loan plus the interest that accrues during the 4 years you attend school and the 1st year after. If the loan is to be repaid over 10 years, what will your monthly payments be? How much will you pay by the time you have fully paid off the loan?

b Calculate the same student loan, but this time using compound interest. What will your balance be when you start repaying the loan? If the loan is to be repaid over 5 years, what will your monthly payments be? How much will you pay by the time you have fully paid off the loan?

c When combining or refinancing student loans, would you prefer simple or compound interest? Discuss with your Examiner. Why does it matter whether your loan is deferred? What is the risk of capitalizing accrued interest when combining several loans into a new loan?

15 Research and explain the history of redlining and other discriminatory lending practices. Discuss how such discrimination in the past affects the financial health of families today, even if they are not currently subjected to such practices.



SENIOR LIFE SKILLS
SENIOR SWIMMER



	COMPLETED EXAMINER & DATE
1 <i>PREREQ:</i> Have earned the Swimmer proficiency badge.	<input type="text"/>
2 Explain why you should never dive into unknown waters.	<input type="text"/>
3 Show ability to perform the following competitive swimming strokes: <input type="checkbox"/> a Freestyle <input type="checkbox"/> c Back <input type="checkbox"/> b Breast <input type="checkbox"/> d Butterfly	<input type="text"/>
4 Demonstrate a side stroke and discuss its merits.	<input type="text"/>
5 Swim 100 yards in any over-arm or crawl style.	<input type="text"/>
6 Be able to swim at least 1 mile, using any combination of strokes.	<input type="text"/>
7 Perform the following dives: <input type="checkbox"/> a Headfirst from the edge of the pool <input type="checkbox"/> b Headfirst from a springboard <input type="checkbox"/> c A running dive, headfirst from the edge <input type="checkbox"/> d A shallow dive or a racing start <input type="checkbox"/> e Some individual stunt in fancy diving	<input type="text"/>
8 In water over your head, perform the following actions in quick succession: <input type="checkbox"/> a Use a feet first surface dive to retrieve an object from the bottom. <input type="checkbox"/> b Drop the object. <input type="checkbox"/> c Use a headfirst surface dive to retrieve it again. <input type="checkbox"/> d Drop the object again. <input type="checkbox"/> e Retrieve it one more time.	<input type="text"/>

CONTINUED ...

.....
9 Tread water for 15 minutes or 5 minutes with a brick.

.....
10 Throw a rescue line to a fixed point 20 feet away, hitting within a yard of your target.
Show success in three out of five attempts in less than a minute.

.....
11 Satisfy your Examiner that you can instruct a non-swimmer in the basic principles of swimming.

.....



SENIOR LIFE SKILLS
SENIOR TAILOR

EARNED
EXAMINER & DATE

COMPLETED
EXAMINER & DATE

1 *PREREQ:* Have earned the **Tailor** proficiency badge.

2 Know the following techniques. Submit samples of **EACH**. These may all be part of a single project, if applicable.

a Run a seam.

j Gather fabric at a seam.

b Create a flat-felled seam

k Bind an edge.

c Overcast a rough edge.

l Make buttonholes.

d Roll and whip an edge.

m Sew on buttons.

e Hem an edge.

n Darn a hole.

f Tuck fabric at a seam.

o Patch a hole.

3 Demonstrate how to tell which way the grain of the fabric runs, and understand how the grain relates to cutting out fabric for clothing.

4 Know the difference between linen, cotton, and wool, and identify samples of each.

5 Know how thread and needles are numbered and what the numbers indicate.

6 Know how to thread and use a sewing machine to hem a piece of fabric or sew a simple item.

7 Know how to lay a pattern on cloth. Cut out a simple article of clothing and construct it. Use this article to demonstrate as much of Requirement 2 as possible. This item may be sewn by hand or with a sewing machine.

8 Complete a simple cross stitch pattern, or add decorative stitching to any item.



Special Interest Pins

Do you have an area of special interest? If you earn several related special proficiency badges, you can wear a *special interest pin*. Once you complete a badge set, you can add this new pin to your uniform. Wearing the pin can be an alternative to wearing all the badges on your sleeve.

Each set below is created to focus on a special area of interest. There is nothing wrong with earning unrelated badges and not completing a pin. How far you take your interest is up to you. Pins are not required for earning other upper level awards, but they are a fun way to show off your hard work.

Pins should be worn on the left pocket flap on your chest or just under your group name flash on your right shoulder.

Use the checklists below to track your progress toward your special interest pin(s). When you have earned a pin, request it from your scoutmaster or quartermaster.



CAMPING

- Ranger
- Camper
- Backpacker
- Venturer

**CANOEING**

- Canoeist
- Nautical Camper
- Senior Canoeist

**CAREGIVING**

- Child Care
- Senior Child Care
- Home Health Aide

**COMMUNITY SERVICE AND INCLUSION**

- Community Service
- Advocate
- Senior Advocate
- Indigenous Art Appreciation

**FINANCE**

- Personal Finance
- Senior Personal Finance
- Entrepreneur

**FIRST AID**

- First Aid
- Take and pass a wilderness first aid course



FISHING

- Angler
- Sea Angler
- Fly Fisher



PERFORMING ARTS

- Entertainer
- Master of Ceremonies
- ONE** of these badges:
 - Dancer
 - Musician
- ONE** of these badges:
 - Choreographer
 - Composer



SCIENCE

FOUR of these badges:

- | | |
|--|--|
| <input type="checkbox"/> Birder | <input type="checkbox"/> Conservationist |
| <input type="checkbox"/> Naturalist | <input type="checkbox"/> Forester |
| <input type="checkbox"/> Flower Finder | <input type="checkbox"/> Zoologist |
| <input type="checkbox"/> Observer | |



SEWING AND NEEDLE ARTS

- Tailor
- TWO** of these badges:
 - Senior Tailor
 - Crafter
 - Fiber Artist



22

SPECIAL AWARDS

The awards in this chapter honor exceptional contributions and dedication to living out the ideals of scouting, and may be earned by *any* registered Pathfinder regardless of age, or achievements of general or special proficiency.

Some of these awards have their roots in Baden-Powell's earliest program. Some are homages to other scouting and guiding organizations throughout history, and some are brand-new for the OSG. This represents the spirit of our organization: taking the best from the past and adding something new.



World Scouting Award

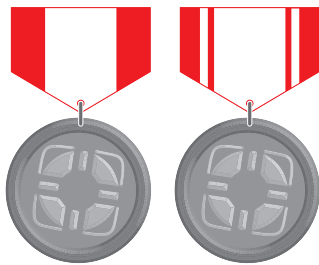
The World Scouting Award (WSA) is an award for international scouting. OSG scouts who travel abroad to participate in events with another scouting association can wear the award while on their journey, where it can serve as a form of national identification. Thereafter, the award serves as a remembrance of your journey/experience.

The purpose of the WSA is to foster a broader appreciation for scouting as a world-wide movement, and to inspire scouts to plan, fundraise, and travel on their own adventures. This, in turn, furthers Baden-Powell's commitment to strengthening the bonds within the global scouting family, and thereby promoting peace.

The WSA award is worn over the left pocket.

To qualify, you must participate at an official scouting event/camp in a foreign country. Participation in any, non-domestic WFIS, World Organization of the Scouting Movement (WOSM), or World Association of Girl Guides and Girl Scouts (WAGGGS) activity qualifies for the WSA.

- Only one such award can be worn, regardless of how many times you have scouted abroad.
- You must wear your OSG uniform, including necker, while scouting abroad.
- GSMs and section leaders can issue the WSA upon verification of a qualifying planned or completed foreign visit.
- You may begin wearing the WSA when your travel to the event commences, not before.
- The WSA can also be awarded to foreign scouts who join OSG events while wearing the uniform of their non-domestic association. They can wear or display the WSA per their association policies.



Lifesaving Medal

The Lifesaving Medal represents service through bravery. There are two versions of the Lifesaving Medal: Second Class and First Class. The Lifesaving Medal, Second Class, is awarded for an act of special heroism in service to another. The Lifesaving Medal, First Class is awarded for an act involving saving a life with considerable risk to yourself.

When awarded, these medals should be worn on the flap of the right pocket.

Your scoutmaster will apply to national headquarters for the Lifesaving Medal. Applications must include a full account of the event described, including written evidence from two witnesses.



Medal of Merit

The Medal of Merit is designed to recognize a Pathfinder who does their duty with exceptional proficiency (without grave risk to themselves) or who pursues exceptional scholarly pursuits over the course of 1 year.

This medal is worn on the flap of the right pocket.

Your scoutmaster (or Lone Scout commissioner) will apply to the regional commissioner for the Medal of Merit. Application must include a full account of the circumstances on which the claim is based. If the claim is based upon a scholarly pursuit, a summary describing that work should accompany the account.



Outstanding Leader Medal

The Outstanding Leader Medal is intended to recognize the outstanding contributions of Pathfinder scouts through youth leadership. To be eligible for the award, you must have actively and honorably fulfilled responsibilities for all of the follow-

ing positions, for at least 6 months each:

- Patrol leader or senior patrol leader
- Patrol second
- Grubmaster (oversees patrol food)
- Quartermaster (sources scout supplies, may also organize badges or troop supplies)

Your scoutmaster should apply to the governing regional commissioner, and should include your name, age, general proficiency achieved, and a resume giving the dates and accomplishments achieved through each of your leadership roles. The application should also include letters of recommendation from two youth scouts who have scouted with you, attesting to the quality of your leadership.

This medal is worn on the flap of the right pocket.



Thanks Award

The Thanks Award is the only award that may be presented to anyone, even someone who is not a scout. It may be given to anyone in gratitude for assistance in promoting scouting. If you meet anyone wearing this award, you should introduce yourself as a scout, acknowledge the award, and ask if you may perform any good turn for the wearer.

The Thanks Award is not worn on the uniform.

The governing regional commissioner approves and awards the Thanks Award. You can nominate anyone by applying to the regional commissioner for the region in which the proposed recipient resides. The application must include the name of the recipient and the circumstances which justify the award. If a youth scout makes the application, it must include a letter of recommendation from the scout's section leader, group scoutmaster, or Lone Scout commissioner.

APPENDIX

THE FIRST CLASS JOURNEY

Requirement—The First Class Journey

1. Plan and undertake an overnight journey traversing terrain appropriate to the area where the scout lives and the scout's capabilities. The journey planned should be one both the scout and their Examiner agree will be a challenge for that scout and a good test of their scouting skills. The scout may choose their method of conveyance, such as by foot, bicycle, boat, or other method. The journey may be performed solo, or with another scout, but the scout being tested should lead all aspects of planning and managing the journey. The journey should occupy about twenty-four hours and a camping kit for the night must be taken and used. Whenever possible, the campsite must be of the Scout's own choosing, and not where other Scouts not participating in the journey are camping. Their Scoutmaster or Examiner may indicate the route and suggest the approximate area, but not the actual position where the Scout will make camp.
2. Afterward, the Scout must write a short report of the journey, paying special attention to any points to which they may be directed by the Examiner (a route of the journey is not required).

This test should normally be the final one taken for the First Class badge.

The primary aim of this test is to evaluate your “First Class Scout” ability to independently go out into the world and handle the challenges they will face there. This journey is not only about honing your outdoor skills but also about fostering a profound sense of independence and personal accomplishment, tailored to each individual scout’s unique capabilities and goals.

Anybody, no matter their situation, can undertake a challenging journey that will give them the opportunity to prove to themselves that, through carefully planning and tackling problems one by one, they can achieve something that seemed almost impossible before they began.

Spend some time thinking about what that journey might be for you, and what you’ve learned in scouts that will help you get there. What seems like a fun and exciting challenge? What can you do where you live, and with the gear and supplies available to you? Who might be able to help?

Once you have some ideas, talk to other scouts and the adults who know you best to see what they think.

Plan, Execute, Report

Your first step is to create a comprehensive plan. Consider your local environment. Are you situated in a rural area with abundant hiking trails and wilderness camping spots, or do you reside in a city where access to remote woods requires substantial travel? Is your region characterized by mountains, arid terrain, cold winters, wet seasons, or a combination of these factors? Utilize your surroundings to design an expedition that challenges your skills and underscores your growth and strength. Use the planning skills you learned in Chapter 10, Campaigning, to make a plan that will be exciting, challenging, and safe.

How Will You Get There?

You may be able to get a ride right to your starting point. On the other hand, if you decide to use public transportation like buses or trains to reach your departure point, you can substitute up to half of your journey with this transit. For example, a 15-mile train trip to the trailhead can replace 5 miles of hiking. The complexity of the journey should be considered before making substitutions, as navigating a train station alone with your gear can demonstrate self-reliance.

Think Safety!

Since this may be your first trip without adults leading the trip and watching out for you throughout the adventure, make sure to pay extra attention to the safety aspects of your plan.

The Buddy System

Who will join you on your journey? How will you make sure that you both stick together so you don't lose each other or without help if one of you has an accident?

Safety Check-Ins

Make a plan for regular check-ins with an adult. If you're traveling through an area with good cellular service, texting a trusted adult at regular intervals might be enough. You and your contact should agree what they should do if you miss a check in, or how long to wait before getting help.

Another option is to have some trusted adults available on the route. For example, if your journey is a hike, two adults could hike the same route about a mile behind you, and camp nearby, with agreed places on the route to stop and check-in with one another.

Bailout or Extraction Plans

Plan a route that has good places to bailout if you have problems. If hiking, plan a route that passes other trails that can shorten your trip or provide a quick way out to a public place where you can get help. If boating, make sure you know where there are stopping points where you could quickly find assistance.

Also, agree ahead of time with your buddy, your trusted home contact, and your Examiner—under what circumstances will you change plans and get out quickly? Discuss scenarios that cover weather, injuries, sickness, and unexpected conditions in the field, problems with gear, or anything else that might be a problem based on your plan.

Make sure you also have a plan for when someone should come looking for you, and how they can find you. Have a trusted adult who knows your route and has a plan for when and how to get help. How will you let people looking for you know if, for some reason, you had to change your planned route?

On the Journey

During your journey, remember to enjoy the experience. Embrace the quiet, strive to go without encountering signs of human activity, and gaze at the stars at night if you're fortunate enough to see them. Trust in your abilities and reflect on your personal growth since your Tenderfoot tests. Consider writing down your thoughts and observations as you go. If you have spare time after setting up camp, work on your trip log for the day, journal, work on one of your special proficiency badges, or play some fun camp games with the other scouts!

Write Your Report

The journey report is a chance for you to reflect on your journey and put your thoughts and experiences into writing so you can discuss them with your Examiner. After completing your journey, compose a report detailing your experience. Include trail notes, descriptions of local landmarks, hand-drawn maps, and observations of wildlife and unique vegetation. Assess how well your initial plan anticipated challenges and whether your journey unfolded as expected or required adaptation to changing conditions. Share how you responded to these new circumstances. If your Examiner asked you to pay particular attention to some aspect of your trip, be sure to write about that.

If you completed the journey with other scouts, each scout should maintain separate notes and write individual reports. Describe the landscape, note birds and wildlife encountered, and provide a concise account of noteworthy details and events during the journey.

Some ideas from First Class Journeys of other Pathfinders:

- Backpacking in the mountains and staying in wild sites off-trail
- Through-hiking a long trail and staying in public campgrounds where there are lots of people
- Bicycling on a rail trail, with trusted adults occasionally passing in the other direction
- Canoeing on a large lake and staying on an island (with permission)

What are some of your ideas?

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THE SCOUT LAW

1. A scout's honor is to be trusted.
2. A scout is loyal.
3. A scout's duty is to be useful and help others.
4. A scout is a friend to all and a sibling to every other scout, no matter to what class, country, or creed the other may belong.
5. A scout is courteous.
6. A scout is kind to animals.
7. A scout obeys orders.
8. A scout smiles and whistles under all difficulties.
9. A scout is thrifty.
10. A scout is clean in thought, word, and deed.



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