

# Outdoor Training Manual



**Girl Scouts of Montana and  
Wyoming**

# Table of Contents

<b>PREPARING WITH COUNCIL FOR AN OUTDOOR ADVENTURE .....</b>	<b>4</b>
<b>LINK OUTDOOR ADVENTURE TO THE GIRL SCOUT LEADERSHIP EXPERIENCE .....</b>	<b>7</b>
<b>OUTDOOR ADVENTURE READINESS .....</b>	<b>8</b>
<b>HOW TO DRESS FOR THE OUTDOORS .....</b>	<b>13</b>
<b>SUPPLY LISTS .....</b>	<b>16</b>
<b>WEATHER .....</b>	<b>21</b>
<b>LEAVE NO TRACE .....</b>	<b>24</b>
<b>ANIMAL AWARENESS .....</b>	<b>28</b>
<b>Insects .....</b>	<b>29</b>
<b>Larger Animals .....</b>	<b>34</b>
<b>INTRODUCTION TO HIKING .....</b>	<b>43</b>
<b>TENTS .....</b>	<b>46</b>
<b>FIRES .....</b>	<b>49</b>
<b>Edible Campfires .....</b>	<b>54</b>
<b>OUTDOOR COOKING .....</b>	<b>56</b>
<b>Cooking with Camp Stoves .....</b>	<b>60</b>
<b>Cooking with Fire .....</b>	<b>61</b>
<b>Stick Cooking .....</b>	<b>62</b>
<b>Dutch Ovens .....</b>	<b>63</b>

<b>Vagabond Stoves</b> .....	63
<b>Buddy Burners</b> .....	65
<b>Box Oven Cooking</b> .....	66
<b>KAPER CHART BASICS</b> .....	68
<b>BASIC KNOTS</b> .....	70
<b>KNIFE &amp; TOOL SAFETY</b> .....	76
<b>Construct a Paper Jackknife</b> .....	78
<b>INTRODUCTION TO BASIC OUTDOOR FIRST AID</b> .....	82

# Preparing with Council for an Outdoor Adventure

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**The emergency contact number for Girl Scouts of MT & WY is:  
406-252-0488**

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Thank you for taking the time to take your troop or group of girls on an outdoor adventure. Outdoor activities benefit girls in so many ways! This manual will help you and your girls get the most out of your activity.

**When planning your trip, please consult the current year's "Volunteer Essentials" handbook for the most up-to-date requirements for:**

1. Safety Guidelines
2. Responsibilities of troop leaders, parents, and girls
3. Transporting girls (troop trip request procedures, chartering buses, car rental, etc.)
4. Current GSMW insurance requirements
5. Providing emergency care
6. First Aid/CPR requirements (**Caution:** Online First Aid & CPR training does not satisfy Girl Scouts' requirements.)
7. Procedures for Accidents

When planning any kind of a trip, always refer to the [Volunteer Essentials](#) section of the GSMW website and the [Safety Guidelines](#) for your specific activity. Both of these resources are available on [www.gsmw.org](http://www.gsmw.org).

When planning an overnight campout away from your hometown, **at least 14 days** prior to your scheduled trip, go to the "travel" section of [www.gsmw.org](http://www.gsmw.org) to submit an [Online Troop Trip Request Form](#) for council approval.

**Along with your Troop Trip Request form, you will need to include the following:**

- Troop roster of all adult and girl participants and their phone numbers
- An Itinerary of the trip including exact addresses and times for where & when you will start your trip, exactly where you will go, what you will do, and when you will return to which location.
- Vehicle information including license numbers and insurance details



## **Preparing for a Safe Trip**

- Involve the girls in the creation of a health and safety plan.
- Talk with girls about general safety issues
- Work on safety awards as preparation for the trip
- Get feedback on girls' health and safety concerns
- Implement appropriate sanitation and food handling procedures.
- Teach girls the fine points of coexisting with outdoor neighbors (e.g. plants, animals, other humans, and insects).
- Locate and review important health and safety information specific to your trips and activities in the [Safety Activity Checkpoints](#) located on the GSMW website ([www.gsmw.org](http://www.gsmw.org)).
- Know the specific required number of adults per girl for outdoor activities and camping trips.
- Know the equipment needed for specific outdoor activities and camping trips.
- Ensure participants understand the importance of planning for security and safety.
- Create an emergency plan. What will you do if there is an accident? Who will you call? Who knows exactly where you are and how to get a hold of you? When will you return?
- Ensure that your trip roster includes at least one adult member who is certified in First Aid and CPR. For trips where your troop will be more than 30 minutes from access to Emergency Services, ensure the presence of an adult currently certified in Wilderness First Aid in addition to CPR.
- Ensure at least one troop volunteer is trained in [GSMW's suite of outdoor trainings](#): the two online training questionnaires and the in-person outdoor cookout training.

## **On Site Safety**

- Review emergency procedures with girls upon arrival at campsite.
- Lost Person (Staying Found) – Enforce a buddy system. If you and your buddy are lost – stay in one place! Searchers will return to where they last saw you.
- Have a plan for emergency signals (flashing light, whistle).
- Weather Conditions – Know the weather forecast, and plan accordingly. During heavy storms, bitter cold, or sweltering heat, seek shelter.

## **Weather**

Always monitor the weather in the days preceding an activity or trip. Check the local weather report on the day of the trip. For circumstances in which forecasted weather could be a risk to safety, schedule alternative activities. In the case of severe wind, lightning, hail, ice, snowstorm, flood warnings due to heavy rain, or a hurricane or tropical storm, make contingency plans for itineraries and transportation. Reschedule the event if the weather report is severe. Adhere to public safety announcements concerning staying indoors or evacuating the area. In extremely hot weather, girls should do outdoor activities in the morning and late afternoon hours, and during the hottest time of day stay in a shaded, cool area. It is important on extremely hot days to plan for easy access to plenty of drinking water to prevent heat exhaustion or dehydration. If extreme weather or temperature conditions prevent a trip, be prepared with a backup plan or alternative activity.

See [weather section](#) for more information.

## **Activity Checkpoints**

- Bring an outdoor-specific first aid kit on every outing.
- Know the location of the nearest medical facility to the campsite.
- Review first aid procedures with girls.
- Be aware of each girl's current medical conditions and their needed care.
- Follow all council procedures when assisting girls with their medications.

## **Medications**

- Give all medications to the designated troop volunteer or to the First Aider to dispense.
- Keep medications in the original container and have only the number necessary for the duration of the trip.
- Acquire written permission from parents to dispense any over the counter medication (i.e. Tylenol, Benadryl) to a girl. Inform troop volunteers of any girl who needs to carry and administer her own medications (such as an inhaler or epi-pen).

See [First Aid Section](#) for more information

# Link Outdoor Adventure to the Girl Scout Leadership Experience

Thank you for your commitment to develop and oversee a positive outdoor adventure for girls in your area. We value your time and appreciate your desire to support girls in this journey. We are confident that the environment you provide will allow girls to **discover** new things, **connect** with others, and **take action** to make the world a better place, which is the heart of the Girl Scouts mission.

In Girl Scouting, **Discover + Connect + Take Action** are the three keys to leadership.

- **Discover:** Girls understand themselves and their values and use their knowledge and skills to explore the world.
- **Connect:** Girls care about, inspire, and team with others locally and globally.
- **Take Action:** Girls act to make the world a better place.

The Girl Scout experience is not just “what girls do” (activities), but “how” (processes) they do them. These processes are Girl-Led, Learning by Doing, and Cooperative Learning. As you begin to plan your outdoor adventure, please keep in mind the “how” of the Girl Scout Leadership Experience:

- **Girl-Led:** Girls are playing an active part in figuring out the “what, where, when, how, and why” of their activities. This means girls are more engaged in playing a critical role as decision-makers in the planning and implementation of their activities.
- **Learning by Doing:** A “hands-on” learning process that engages girls in continuous cycles of action and reflection resulting in deeper understanding of concepts and mastery of practical skills.
- **Cooperative Learning:** Learning takes place when all members of a group are working together towards a common goal.

We strongly encourage you to involve the girls in the planning and implementation of activities and engage them in planning and implementation process from beginning to end. Outdoor experiences are the perfect place to “learn by doing” and create an environment of collaboration and teamwork. We appreciate your contribution to the Girl Scout mission! Girl Scouts builds girls of courage, confidence, and character who make the world a better place.

# Outdoor Adventure Readiness

## Readiness for Outdoor Skills

Before beginning a new outdoor adventure or a campout, a Girl Scout needs to have successfully completed a variety of experiences that adequately build-up their emotional, physical, and skill development as it pertains to outdoor adventure. Leaders also need to be emotionally and physically ready, with the needed skillset, to have a successful group camping experience. Here are some basic readiness indicators and some skill development guidelines to help you judge whether your troop is prepared. You may want to adapt these indicators to meet the needs of your girls. Remember, the list is not a “test”, but rather a way to evaluate progress.

As a reminder, be sure to implement the GSLE throughout the progression. Our aim is to empower girls so they can be successful in their outdoor pursuits, their Girl Scouting experiences, and in life beyond Girl Scouts.

## Emotional Readiness

*Girls and adults are emotionally ready to learn advanced outdoor skills when they...*

- Are comfortable spending more time outdoors.
- Are comfortable working as a team.
- Are not afraid of sleeping outside.
- Are able to cope with the unexpected.

## Physical Readiness

*Girls and adults are physically ready for overnight outdoor experiences when they...*

- Have the stamina, strength, skills, and coordination for the activities planned.
- Are strong enough to carry a backpack, a bucket of water, and/or a cooler.
- Have the physical dexterity to set up a campsite and pitch a tent.

## Skill and Intellectual Readiness

*Girls and adults have sufficient skills for outdoor adventures and campouts when they...*

- Abide by boundaries and have knowledge to deal with simple emergencies.
- Understand Leave No Trace Principles and know how to set up a campsite.
- Can build a fire, prepare an outdoor meal, and operate their camp stove properly.
- Are able learn new skills and immediately apply them.

Girls do not have to meet all criteria to participate in an outdoor adventure or campout. For example, a girl with a disability may not be able to carry her own gear. For most outdoor adventures, your troop can work together to create reasonable accommodations for every girl. Also, do not expect every girl to be an expert at all of these skills. Instead, each girl should show a *readiness* to encounter certain outdoor situations and skills.

## **Progression in Outdoor Skills**

*Remember, girls should play a significant role in planning the troop's outdoor adventures and campouts.* Preparation for troop overnights includes building knowledge and skills through a progression of outdoor activities. Below, you will see a progression of steps to prepare your troop for outdoor activities. Many troops are already working through or past “Look Out” and “Meet Out”. When you reach “sleep out”, girls will have developed the skills necessary for a successful campout, overnight experience, or more rigorous outdoor adventure. See GSUSA's [Outdoor Progression Chart](#) for a fun visual guide to these steps.

### **LOOK OUT**

- Learn what to wear
- Learn good outdoor manners

### **MEET OUT**

- Play outdoor games.
- Go on a discovery hike in your neighborhood.

### **MOVE OUT**

- Go for longer hikes; sharpen observation skills.
- Play nature games.
- Learn some basic outdoor skills like knot tying, knife safety, first aid.

### **EXPLORE OUT**

- Practice basic outdoor skills.
- Work on an outdoor badge.
- Lay a trail for someone to follow.
- Fix a lunch to eat on the trail.

### **SLEEP OUT**




- Have a backyard campout or a one-night overnight at a campsite.
- Plan an evening program, maybe with a campfire.
- Learn how to build a fire.
- Cook a one-pot meal over charcoal or on a portable stove.
- Go on a two-night overnight experience.

Spend time on each step to allow every girl to gain comfort before moving on to the next step. You may combine two steps, but don't skip any of them. You will see girls develop emotionally and physically as you move through the progression

**Here are some ideas for building progression:**

- Set up a tent, indoors or out.
- Learn and practice simple knots.
- Learn fire safety.
- Make useful gear, like dunk bags or situpons.
- Light a match.
- Practice rolling up a sleeping bag or bedroll.
- Cut fruits and vegetables for a snack.
- Cook an outdoor meal as a troop (be sure to have a trained adult volunteer).
- Visit an outdoor equipment store for a talk on camping gear or dressing for the weather.

***This table contains examples of progressive outdoor activities for your troop. Here, we emphasize eight major outdoor skills categories:***

	<b>Beginner</b>	<b>Moving</b> 	<b>Toward</b> 	<b>Expertise</b> 	<b>Mastery</b>
<b>Leave No Trace</b>	Learn and practice Leave No Trace Principles. Learn to leave a place better than you found it.	“Leave only footsteps, take only pictures.” Discover the world around you – what grows and lives where.	Connect with others. Know how to ask permission and how to thank someone for use of property or services.	Take action with a conservation project; plant trees; build a hiking trail, halt erosion, build a birdhouse or feeding station.	Know how to choose a site for your tent or campsite and how to return it to its original condition or better than you found it.
<b>Clothing</b>	Know how to dress for activities you plan.	Discover how to dress for an all-day outing.	Learn how to dress for different types of weather: heat, rain, snow, wind.	Learn how to pack your clothes and other gear efficiently	Learn about hypothermia: its relationship to clothing, how to prevent it, recognize the symptoms, and how to treat it.
<b>Knots</b>	Learn to tie a square knot and clove hitch and learn when to use each.	Learn to tie bowline, half hitch, taut line hitch and lark’s head knots and the use for them.	Learn to whip a rope. Make something useful using knots.	Use lashing to make something.	Splice a rope.
<b>Knives &amp; Tools</b>	Know how to handle and use a knife. Use a knife to prepare a meal or snack.	Know how to use, care for, and sharpen a jackknife. Make shavings.	Know how to carry and use a saw. Know when and where to use it.	Show someone else how to use and care for a knife.	Whittle or carve something more complicated than a s’mores stick.
<b>Fire</b>	Learn how to light a match safely. Make fire starters.	Learn basic indoor fire safety. Learn how to light and put out a fire properly.	Learn how to choose a good site for a fire. Use charcoal to cook a meal. Learn how to store fuel for future use.	Choose a camp stove. Learn how to operate it and care for it.	Teach someone else fire safety rules and how to build, light, and put out a fire.

	<b>Beginner</b> ➤	<b>Moving</b> ➤	<b>Toward</b> ➤	<b>Expertise</b> ➤	<b>Mastery</b>
<b>Cooking</b>	Help prepare simple food for a sack lunch.	Help prepare and cook an outdoor one-pot meal. Be sure to have a trained adult volunteer present.	Plan and prepare a well-balanced meal using two different outdoor cooking techniques.	Plan, cook, and serve an outdoor meal to someone else or another group of girls or parents.	Plan, prepare, and cook a meal in a box, Dutch oven, or reflector oven on fire or coals. Cook a gourmet outdoor meal.
<b>Safety &amp; First Aid</b>	Learn how to use GSMW's Safety Activity Checkpoints. Know basic group safety.	Know what to do in case of an emergency, such as a fire or accident. Have an evacuation plan.	Learn basic first aid. Make a first aid kit.	Become certified in first aid and CPR.	Become certified in Wilderness First Aid.
<b>Maps &amp; Orienteering</b>	Learn how to become oriented to your surroundings. Know areas of safety and areas of danger.	Learn how to read a road map and how to recognize basic map symbols.	Learn the basic compass directions: North, South, East, & West (N,S,E, & W) and how to find them with or without a compass.	Learn about topographic maps, what they're used for, and how to read them. Learn how to use a compass with a topographic map.	Explore geocaching, orienteering, and hiking with a global positioning system (GPS).



# How to Dress for the Outdoors



## SAFETY

Remember, our weather changes quickly, especially in higher elevations, so packing extra layers and being prepared for any type of weather is of greatest importance.

Clothing should be roomy and comfortable, allowing for reasonable freedom of movement. If possible, it is preferable to have layers of clothing that are “compressible” so that when you take a layer off it will fit nicely in a backpack.

Dressing in layers is the key to keep girls warm in the winter and to keep girls from overheating in the summer. To adjust to temperature changes and varying activity levels, simply add or remove clothing accordingly.

## Standard Layers:

- To reduce chilling, wear long underwear made of polyester or other synthetic or lightweight wool materials to move moisture away from the skin.
- Fleece is a good second layer for trapping your body’s warmth.
- Outer layers will vary depending on weather conditions. Consider wind resistant & water resistant outer layers that do not restrict movement.
- **Always pack rain gear.** Rain gear should include a breathable raincoat with a hood and breathable rain pants that are big enough to fit over your other layers and to overlap your shoes to keep water from seeping into your socks. Some rainy conditions will inevitably soak your shoes and socks, but if the rest of your body is warm and dry, you will still be happy. Look for thick-soled hiking shoes made of water resistant or waterproof materials for the ultimate rain-resistant comfort.
- For maximum comfort and blister prevention, you should wear two layers of socks, a thin polyester sock liner with a thicker wool or synthetic outer sock. Make sure to change your socks if they get wet and at night before going to bed. Wool socks may sound too hot for summer months, but combined with a thin sock liner, wool

socks or a synthetic wool blend will provide the most dryness and comfort for your feet.

- Quality footwear is important for any activity. Proper shoes or boots provide stability, warmth, and comfort. If your feet hurt, you will not enjoy yourself. Encourage girls to walk around in their new shoes before taking them on extended adventures. If girls are purchasing new boots or gear for an upcoming trip, break in the boots together with a day hike or by having everyone wear their boots to a few troop meetings. Waterproof footwear is essential for long trips.
- Hats are good for both warmth and sun protection. In cool weather, sleeping with a hat can provide the warmth you need. Up to 80% of your body heat can be lost through your head and neck.
- Gloves protect your hands. Exposing your hands to extreme cold can quickly cause frostbite. Even on warm days, it can be a good idea to have a lightweight pair of gloves in case a storm moves in.
- Sunglasses are a necessity. Even on a cloudy day or a winter day, have sunglasses in your pack and wear them whenever the sun is out. Snow glare can cause significant pain and damage to the eyes, as well. Ultraviolet rays from the sun can permanently damage eyes - never leave home without your shades!

For a backyard campout, clothing issues are simplified because, if weather becomes severe, you have the safety of a house to go to. It is good practice to have girls prepare for any sort of weather and have them experience their activities in every sort of weather. To best prepare your troop for any weather condition on longer trips, first practice outdoor skills in every weather condition closer to home.

## **Packing for Cooler Temperatures:**

When packing it is always important to check the weather, consider the altitude, and to make sure that everyone has packed accordingly. In higher altitudes, temperatures can drop very quickly, even in the warmest months, so it is important to pack at least one additional warm-layer. During the fall through spring, it is important to add several items to your packing list.

### **Warm Jacket**

- Consider fleece, wool, wind stopper, goose down, and synthetic materials. Stay away from cotton.

### **Insulated Hat**

- Wool hats with fleece liners are nice and comfortable. Some people prefer hats with flaps to cover their ears. Consider comfort, but, more importantly, consider performance.

**Ear Warmers/ Headband**

- These items should never replace a hat

**Gloves/ Mittens**

- Again, stay away from cotton, and bring an extra pair if you can. Look for wool or synthetic materials. Gloves should be water resistant or waterproof.

**Thermal Underwear**

- Polyester, other synthetic materials, or wool long underwear is a must.

**Hiking Socks/ Wool Socks**

- Bring extra wool or synthetic wool socks. In addition, bring additional thin liner socks made of polyester or silk.

**Long-sleeved Shirt(s)**

- polyester, other synthetics, and wool, but not cotton

**Pants**

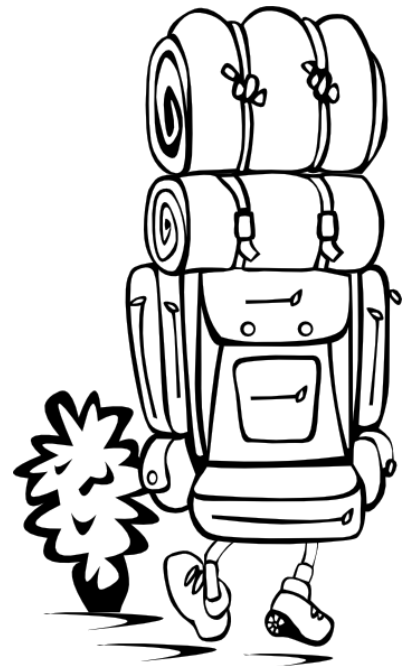
- Fleece, wool, and down pants are good. Make sure they fit well but are roomy enough to layer over thermal underwear. Consider water resistant pants, too.

On camp-outs in cool weather, once you get to camp, immediately change out of clothes that are damp with sweat or rain/snow. Damp clothes will not keep you as warm as dry clothes.

# Supply Lists

## Troop Supply List for cookout or campout:

- Portable Cooking Stove
- Fuel
- Charcoal (if necessary)
- Charcoal stack (if necessary)
- Pots and Pans
- Hand-washing Station
- Hand sanitizer
- Toilet Paper
- Kapers Chart
- Tents
- First-aid Kit
- Cooler (for food storage)
- Lantern (propane, butane, kerosene, or gas)
- Emergency Plan
- Emergency Contact List
- Heavy Duty Garbage Bags
- Emergency Feminine Products
- Matches
- Lighter
- Potable Water (for drinking and cooking)
- Biodegradable Dishwashing Soap
- Pot Scrubber
- 3 Dish Pans (for dishwashing station)
- Can Opener (if necessary)
- Cutting Board (if necessary)
- Knives (if necessary)
- Long-handled Cooking Utensils (ladles, spoons, spatulas)
- Pot Holders
- Water Purification Method (if necessary)
- Food
- Camping Table (if necessary)
- Storage Container for Medication
- Bug spray and/or citronella candles (if necessary)
- Nylon Rope/ Cord – hanging line for towels and dunk kits
- Extra Batteries (optional)



### **Troop Supplies for 2 to 3 Nights:**

- All the necessary Items from the list in Outdoor Training 1 adjusted for the number of days.
  - A Safety Plan** – including emergency contact numbers; phone numbers for the local ranger, firehouse, hospital, and police stations; emergency evacuation routes; and emergency medical information for every child and adult on the trip.
  - Copy of Campsite Reservation
  - Current Weather Forecast *for the Entire Trip*
  - Map of Camping Area with Exit Plan
  - Charcoal (if necessary)
  - Firewood (if necessary)
  - Cast Iron Cookware – Dutch Oven (if necessary)
  - Fire Starters
  - Bear Spray
  - Bear proof containers or means to construct a bear hang (*see Animal Aware* section) (if necessary)
  - Two-way radios (if necessary)
  - Cell phone

### **Individual Packing List (Backyard or Car Camping trip):**

No matter how long your trip may be it is important to encourage individuals to “pack light”. This will save not only space, but it will also build good habits for longer trips in the future.

- |  |   |
|--|---|
| <input type="checkbox"/> Sleeping Bag/ Bedroll       | <input type="checkbox"/> 2 Pairs of Socks                               |
| <input type="checkbox"/> Sleeping Pad                | <input type="checkbox"/> Rain Jacket/ Poncho                            |
| <input type="checkbox"/> Toiletries Kit              | <input type="checkbox"/> Hat/ Bandana                                   |
| <input type="checkbox"/> Pillow                      | <input type="checkbox"/> Sunglasses                                     |
| <input type="checkbox"/> Sweatshirt/ Light Jacket    | <input type="checkbox"/> Bug Repellent                                  |
| <input type="checkbox"/> Flashlight/ Headlamp        | <input type="checkbox"/> Waterproof Sunscreen                           |
| <input type="checkbox"/> Extra Batteries             | <input type="checkbox"/> Medications (if necessary)                     |
| <input type="checkbox"/> Backpack                    | <input type="checkbox"/> Mess Kit/ Dunk Kit                             |
| <input type="checkbox"/> Water Bottle                | <input type="checkbox"/> <b>Have parents label their girls' things!</b> |
| <input type="checkbox"/> Closed-toed Shoes           |   |
| <input type="checkbox"/> T-Shirt/ Long-sleeved Shirt |   |
| <input type="checkbox"/> Shorts/ Pants               |   |
| <input type="checkbox"/> Underwear                   |   |

### Individual Supply list for a 2 to 3 Night Camping Trip:

- Items from the previous list but adjusted for the number of days.
- Whistle
- Sturdy Shoes
- Sandals/ Flip-flops (optional – for shower)
- Towel (optional – for shower or swimming)
- 3-5 Pairs of Socks

### What is a “Dunk Kit”?

A Dunk Kit is a large mesh bag that is used to hold dishes and utensils for each girl. This kit should include the following items:

- Plate
- Bowl (optional)
- Cup with Handle
- Fork
- Knife (“child safe”)
- Spoon



Then, once a meal is finished the dishes are washed, everything is placed into the dunk bag and hung on a line to dry. This helps to keep everyone’s dishes in order, as well as making sure that utensils are not lost of the first day.

### Packing a Toiletries Bag:

You can help everyone to prepare for your trip ahead of time by using some troop meeting time to put together toiletries kits and by talking to the girls about the importance of packing light. Collecting travel-sized bottles is a good project for the girls to work on before their trip. It also helps to remind everyone one not to pack more than they can carry. Remember, if you have to carry everything to the camp site from the car, you don’t want to make too many trips. Plus, you want to make sure that there is room in the tent for everyone.



### Toiletries Kit “Must Haves”:

- Toothbrush
- Toothpaste
- Washcloth
- Soap
- Hair Brush/ Comb
- Deodorant
- Extra Hair Tie

**\*\*Put all toiletry items in a labeled drawstring, zippered, or Ziploc bag\*\***

## **Optional Toiletry Items:**

- Toothbrush Cover
- Wet Wipes - Can be used to clean up after meals, wiping off hands and faces before bed, and are great for armpits and feet, too.
- Bandana - Bandanas are the great multi-purpose tool while camping. They can be a headband, wash cloth, towel, hankie, etc.
- Face Wash - Wipes with added face wash are convenient.
- Moisturizer - with added SPF, preferably; be sure it is UNSCENTED so as not to attract animals.
- Cloth Headband - If girls have longer hair, a headband or a bandana is necessary for cooking with open flames. They are also especially helpful to keep hair out of your face for the whole day.
- Feminine Hygiene products - for girls who have a period or who may get their period soon; bring the products even if a period is not scheduled.

## **Things NOT To Pack In Toiletries Kits:**

- Perfume/Body Spray - This will attract mosquitoes, insects, and bears.
- Aerosol Hair Spray
- Nail Polish
- Glitter

## **Things NOT To Pack:**

- **Firearms**
  - Girls under 12 ARE NOT allowed to use firearms at any Girl Scout event, and council permission must be obtained in order for ANY firearms to be present at a Girl Scout event.
- **Valuables**
  - Items that are brought camping are not covered under liability from GSUSA, GSMW, or troop liability. Remind the girls that if they are worried about losing something they might want to just leave it at home where they will know right where to find it when they get home.
- **Electronics**
  - It is helpful to remind the girls why they are camping. These electronics serve as a huge distraction while the girls are out, and with a well-planned trip there is little to no time to even remember that the girls brought these items. Also, laptops, portable DVD players, iPods, MP3 players, and so on are far more likely to become lost or broken while camping. The liability for

these items is not covered by GSUSA or the troop. In other words, if something happens it all comes back to the girl's responsibility.

- **Cell Phones**

- Although cell phones are important for staying in contact and in case of emergency, they are often very distracting, not just to the person using them, but to everyone around them, especially in an outdoor setting. Also, in many camping areas, it is not possible to get a signal for cell phones.
- Girls may wish to bring their phones to use as cameras on a trip. If you decide to allow this, talk to them about the risks of losing or breaking their phone and acceptable use of cell phones on the trip. One option is to have girls put phones in airplane mode for the duration of the trip.

- **Curling Irons & Hair Straighteners**

- Electricity is not always an option, and sharing two outlets with 10 girls can be a problem.

- **Make-up**

- Although makeup is an important part of many people's daily routines, not using make-up while camping is important. First, girls should understand that makeup is not essential. Girls do not *need* makeup – especially when they are outdoors with friends they trust. Outdoor adventures are a great time for girls to find themselves free of social pressures like makeup! Leaders, too, should model self-confidence without makeup. In addition, makeup in the outdoors has a high likelihood of becoming contaminated. It is very hard, if not impossible, to maintain the same level of cleanliness while camping as when we are at home. This means that bacteria can contaminate make-up. These bacteria are especially dangerous in eye makeup. Bacteria in eye makeup can easily enter the eye, causing severe eye infections and even blindness.



# Weather

## SAFETY

Weather has the power to determine every aspect of your camping trip - where you camp, what activities you do, how you prepare food, what clothes you bring, and even if you go on the trip at all. When preparing for a camping trip, be sure to study and think about the weather patterns for the area. You can check online on the [www.weather.com](http://www.weather.com) or [www.noaa.gov](http://www.noaa.gov) web sites for insights and weather patterns. You should check these sites regularly as you near the time of your camping trip. Weather forecasts can change from hour-to-hour, so make sure you check these sites multiple times a day before your trip. If possible, check them while on your trip, too.

## Thunderstorms and Lightning

Thunderstorms can develop quickly and are always associated with lightning. If you hear thunder, lightning is close enough to strike and you should seek shelter immediately. Here are some important safety tips if you are outdoors during a thunderstorm.



- Avoid open fields, the top of a hill, or a ridge top.
- Stay away from tall, isolated trees or other tall objects. If you are in a forest, stay near a lower stand of trees.
- If you are in an open area, go to a low place such as a ravine, ditch, or valley. Be alert for flash floods.
- If you are on open water, go to land, and find shelter immediately.
- Stay away from water and metal objects, which are both excellent conductors of electricity.
- If you feel your hair stand on end (which indicates that lightning is about to strike), squat low to the ground on the balls of your feet. Place your hands over your ears and your head between your knees. Make yourself the smallest target possible and minimize your contact to the ground. DO NOT lie flat on the ground.
- During the storm, stay in any of the above-mentioned locations, but, if possible, the safest place is a building or a car. Maintain a safe position for at least 30 minutes after you see lightning or hear thunder.

Visit [Ready.gov](http://Ready.gov) for more details and techniques for staying safe.

## Heat

North American summers are hot; most summers see heat waves in one or more parts of the United States. East of the Rockies, heat waves combine high temperature and humidity, but some of the worst heat waves have been catastrophically dry. Follow these safety tips to avoid heat-related illnesses:

- Slow down. Reduce, eliminate, or reschedule strenuous activities until the coolest times of the day.
- Wear lightweight, light-colored clothing to reflect heat and sunlight.
- High protein foods, like meat, tend to increase metabolic heat production and increase water loss. Eat proteins mostly during cooler times of day.
- Drink plenty of water along with non-alcoholic and decaffeinated fluids. Your body needs water to keep cool. Drink plenty of fluids even if you do not feel thirsty.
- During excessive heat periods, spend time in air-conditioned or shady places, if possible.
- Avoid the sun. Sunburns reduce your body's ability to dissipate heat. Wear wide-brimmed hats, shirts with sleeves, and consider a buff for your face when venturing on snow or water.

Visit the NOAA National Weather Service for more information on NOAA's Watch, Warning, and Advisory Products for [Extreme Heat](#).

## Flash Floods

Flash floods develop rapidly and can happen with little or no warning. They can occur in mountains as well as deserts, on small streams, rivers, and even in populated urban centers. The [National Weather Service](#) issues flash flood watches and warnings by transmitting their message on NOAA weather radios and through local media. A flash flood “watch” means threatening weather is possible in the area. A flash flood “warning” means you may have only seconds to escape. Review this checklist for flash flood safety tips.

- Know the area's flood risks. Monitor the NOAA weather radio all hazards bulletins, or your local news stations, for vital weather information.
- Stay alert for signs of heavy rain (thunder and lightning) both where you are and upstream. Watch for rising water levels.
- Get to higher ground if flooding occurs. Leave low-lying areas immediately.
- Do not try to outrun a flash flood in your car. Climb to safety immediately.

- Avoid areas already flooded, especially if the water is flowing fast. Do not attempt to cross-flowing streams. Remember: “Turn around. Do not drown.”
- If you are on solid ground, do not try to swim to safety. Wait for rescuers to come to you.
- Be especially cautious at night when it is harder to recognize and respond to danger. During threatening conditions, do not camp or park your vehicle along streams and rivers.

Hail, heat, high winds, and other weather events can turn a pleasant outdoor experience into an exercise in survival. [NOAA Weather Radio](#) is an around-the-clock source for weather reports and hazard alerts. Being prepared with appropriate clothes and equipment, checking weather conditions prior to a visit, and letting people know where you are going and when you will return will help ensure your safety through an outdoor adventure. Follow this link to more weather [safety tips](#) from the U.S. Forest Service.

# Leave No Trace

A Girl Scout leaves a place better than she found it. The appeal of the natural environment is among the most fundamental attractions of the outdoors. Girl Scouts should encounter the natural wonders of the earth, and at the same time, they should learn to protect and preserve such wonders for future generations. It is important for girls to learn how camping and other outdoor activities impact the environment and how girls can minimize their impact. Refer to the Leave No Trace web site for more information: <http://www.lnt.org/index.php>



“Leave No Trace” is a set of outdoor ethics that emphasizes low-impact camping. Leave No Trace (LNT) is a nationwide program designed to help outdoor guests make good decisions when they travel and camp. The program educates visitors about their recreational impacts and techniques to minimize invasive impacts. LNT is an educational and ethical set of nature-friendly guidelines. LNT principles are required when spending any time outdoors. The LNT program is based on seven principles. Girl Scouts already incorporate many of these principles through observance of the Girl Scout Law and Promise. Model and teach these good LNT practices with your girls. Some of these principles only apply to groups camping in the backcountry because casual car camping sites often have designated tent sites, trash receptacles, water wells, running water, and/or outhouses, etc.

## The Seven Principles of Leave No Trace:

### 1. Plan ahead and prepare.

The longer your trip is going to last, the more crucial it becomes to plan well ahead of time what activities girls would like to participate in while camping and your menu. It is also **VERY** important to have an escape route planned in case something happens while you are camping. Encourage the girls to be as involved as possible and review the Safety Guidelines with them.

### 2. Travel and camp on durable surfaces.

Whenever and wherever you go outside, you are sure to make a lasting impact on the earth. Using established campsites, trails, and facilities will greatly reduce the impact made. Remember to camp and hike on durable surfaces such as large rocks, gravel areas, and areas covered with pine needles. A good guideline to keep in mind is that we want to leave things better than we found them, which includes plant life in the area.

### 3. Dispose of waste properly.

As we discussed in Outdoor Training 1, properly disposing of waste is incredibly important. Make sure that everyone in your group knows where the closest trash

receptacles are located and how to dispose of waste. It is everyone's job to make sure that camp stays clean. Also, keeping an available trash bag around camp easy use helps to encourage and remind everyone of that. If we can establish these good habits with girls at a young age, adhering to the principles becomes even simpler as they become older.

#### **4. Leave what you find.**

When in the outdoors it is easy to forget that we are visitors, and it is important to encourage the girls to leave what they find. Although this can be challenging, a great way to build this habit in girls is to encourage them to bring a journal and/or a camera so that they can keep track of the things that they see while leaving them for others to enjoy as well.

#### **5. Minimize campfire impacts.**

Campfires are one thing that almost everyone seems to look forward to while camping, and we all want to be able to enjoy them. Having campfires also requires a large amount of responsibility and safety. Girls should only build fires in established fire circles. This will greatly minimize your campfire impact while ensuring a safe and manageable experience.

#### **6. Respect wildlife (See #4 above).**

Although we have said this several times, we have to remember that we are visitors while we are outside. Encourage girls to leave what they find outdoors. Leave plants, rocks, and natural objects where you find them, and do not disturb wild animals. Outdoor adventurers must never feed wild animals. Remember, animals become dangerous, not only to people, but also to themselves and other animals, if they eat human food.

#### **7. Be considerate of other visitors.**

When Girl Scout troops venture outdoors, they need to know that they are not the only ones on the trail or at the campsite. Troops should remain considerate and caring while exploring and enjoying the outdoors. We want others to be able to enjoy their time away as much as we do. This might mean we cannot sing as loud as we usually do; we move to the side of the trail for another hiker; or we offer to help another group collect firewood.

### **On the Trail**

- Limit group size to a number than can camp or hike without doing excessive damage.
- Stay on marked or established trails and walk single file.
- Stay on the trail, even if it is muddy, to avoid creating another trail next to the original.
- If your troop is walking where there is no trail, spread out to hike, do not hike single file, stay off mosses, lichens, flowers, etc., especially at high altitude, above timberline, where foliage is very fragile.

- Respect wildlife and do not disturb it. Do not feed the animals.
- Leave what you find so that others can enjoy it. If you like a flower or rock, take a picture.
- If you build primitive trail signs, take them apart when you are done.
- When you stop for breaks, get off the trail and rest a few yards away from the trail so you are not blocking its use for others. Spread your group out and do not leave any trash or food waste behind.
- Fluff up the grass that you matted down before you leave.
- Pick up any trash even if your group did not leave it.

## **At the Campsite**

### **Selecting your campsite:**

- Camp at least 100 yards from a river or stream and 300 yards from the still water of lakes and ponds.
- Set up your camp away from sensitive habitat even if it has the best view.
- Pick a campsite that has sturdy ground covering. Sand, gravel, pine needles, and dirt can tolerate campsite activity much better than lush but delicate meadows, flowers, stream banks, and alpine tundra.
- If possible, change shoes at camp. Bring shoes that have a smaller impact than your hiking boots.
- Pick a site that has relatively easy access to drinking water like a moving stream.

### **Camp Waste:**

- **Do Not** burn trash. Carry out your trash or dispose of it in containers provided by the camping site. Also, plan ahead to bring as little trash as possible.
- Plan food carefully to avoid leftovers. You will have to carry-out any leftover food. Do not bury or burn remaining food.
- Strain-out food particles in your dishwater. Put food particles into your garbage bag. Broadcast your strained water in a wide array far from other water sources and your campsite.

### **Bathing and Washing:**

- Use biodegradable soap, and use the least amount necessary. Camping soaps are usually highly concentrated, so you only need to use a tiny dot compared to home hand soap.
- Do not do your washing directly in a stream or lake. Carry the water to a bathing or washing spot at least 100 yards from any stream or river and 300 yards from a pond or lake.

**Human Waste:**

- Use outhouses or toilets wherever they are available. If you have to use latrines or dig cat holes, do not put anything except human waste and toilet paper down the hole. (We will discuss how to make a backcountry latrine and cat hole in GSMW's Backpacking Training)
- In the backcountry, girls must carry out their own used tampons or pads, sealed in a plastic bag. Advise girls to purchase unscented feminine care products for the trip. Teach girls how to care and dispose of their pads and tampons. Periods can be intimidating in the backcountry, but good education will help girls overcome their hesitancy to venture out while on their period.
- Set up a hand-washing unit near the latrine or pit and remind the girls to use it. The "Outdoor Cooking" section of the manual explains handwashing in more detail.

# Animal Awareness

## SAFETY

- Whenever you are heading outside, remember to keep everyone's allergy information and any medications with you at all times.
- If anyone in your group has an auto-injector or an inhaler device make sure they have completed their Medication Permission Form.
- Be sure to check with local Game, Fish and Parks/ Forest Service/ Parks Service about animal sightings and movements in the area before heading out. They will be able to tell you what areas you may want to avoid as well as where you might have a chance to view certain animals.
- If you are heading into **bear country**, follow all Bear Aware guidelines
- Make sure to review animal safety and preparedness with all girls AND adults before heading outside.

## Respect the outdoors, do not fear the outdoors.

For safety, it is important to inform your group of the inherent dangers of being outdoors. At the same time, advise your group that the outdoors also provides a peaceful environment where people face challenges, relax, and learn new skills. Your troop should not fear the outdoors, they should respect nature and understand how to prevent dangerous situations and encounters.



In Montana & Wyoming, black bears, squirrels, and other pests or dangerous animals are everywhere – even in your backyard. So, in your backyard, take every precaution you would at a campsite. Practicing animal safety in your yard is good preparation for the real thing, and yard practice will help your troop form good habits that prevent dangerous and problematic animal encounters when your group is in a wilder habitat.

Animals, small and large, are appealing, but can do harm if fed or caught. If your dog is present at any Girl Scout event, keep it under full physical control at all times and take responsibility for its behavior with children and wild animals. Keep the dog away from food preparation and eating areas. This may mean you keep your dog on a leash.



## **General Guidelines**

- Campers should only visually observe wild animals, even small ones like insects, frogs, and birds.
- Campers should not attempt to pick up or pet any wild animal.
- Keep unwanted insects and animals away by maintaining cleanliness.
- Put your troop's garbage into the campgrounds' trash receptacles or into the trunk of a vehicle when you leave camp or when you go to bed. If you do not have access to a car or trash can, put your garbage into a bear safe container or hang garbage in a bear hang.
- All food should be stored away from sleeping areas and sealed up tight. In the backcountry, your garbage should be stored at least 100 feet from your tent site.
- Remind girls to store their gum, candy, or snacks just as they would any other food. Properly store other things that smell good like toothpaste, lip balm, lotions, etc. Never allow any such items in the tent site area or in tents. They should be stored with food and garbage items.

## **Insects**

Remind your group that most insects in Montana and Wyoming are harmless. When we go outside, we are visitors in insects' home. Girls and adults on the trip should treat insects with respect, cause no harm to them, and leave insect homes the way they are found.

## **Mosquitoes**

### **Types of Repellant:**

**For protection against ticks and mosquitoes:** Use a repellent that contains 20% or more DEET for protection that lasts several hours. When used according to directions, DEET is safe to use with children. Excess use or failure to follow directions can lead to injury, sickness, or even death. High concentrations of DEET can melt synthetic clothing materials (plastic), so use only on natural fibers or skin. Keep DEET away from eyes, nose, and mouth. You can control the application of DEET better with a wipe than with a spray.

**For protection against mosquitoes only:** Products with one of the following active ingredients can also help prevent mosquito bites: *Picaridin (also known as KBR 3023, Bayrepel, and icaridin); Oil of lemon eucalyptus (OLE or PMD); Citronella, Tea Tree Oil, Thyme Oil.* Higher percentages of active ingredient provide longer protection.

**Prevent mosquito bites:**

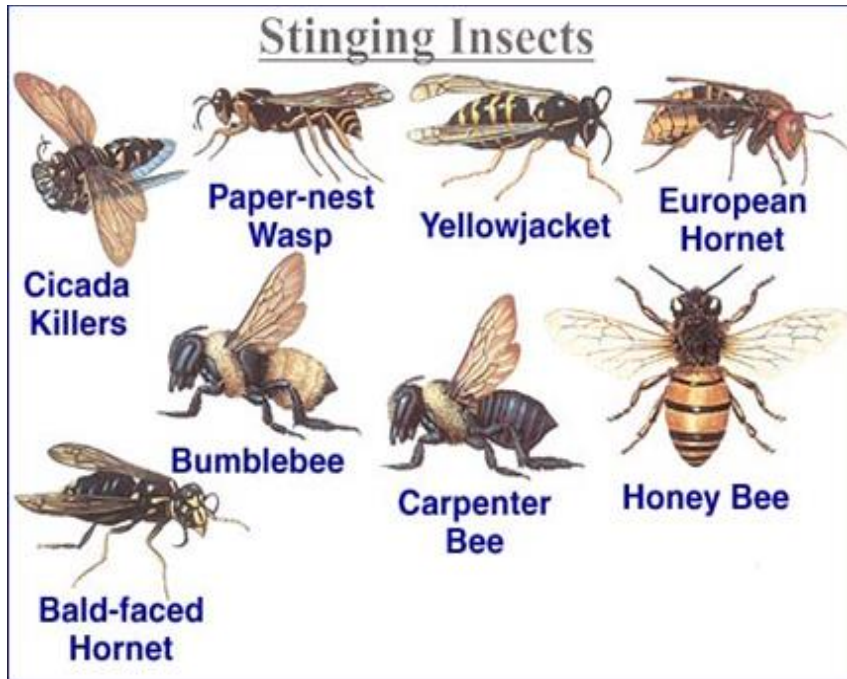
- Cover exposed skin by wearing long-sleeved shirts, long pants, and hats. You can also wear clothing with built-in insect repellent.
- Stay and sleep in screened tents or cabins.
- Find a campsite or a resting site away from standing water. Puddles, marshes, and lakes provide great breeding grounds for mosquitos.
- Use a bed net if you are sleeping in an open-air environment where mosquitos are prevalent or dangerous.

Most mosquito bites are harmless, but occasionally a mosquito bite causes a large area of swelling, soreness, and redness. Bites from mosquitoes carrying certain viruses or parasites can cause severe illness. Infected mosquitoes in many parts of the world transmit West Nile virus to humans. Other mosquito-borne infections include yellow fever, malaria, and some types of brain infection (encephalitis).

**Stinging Insects**

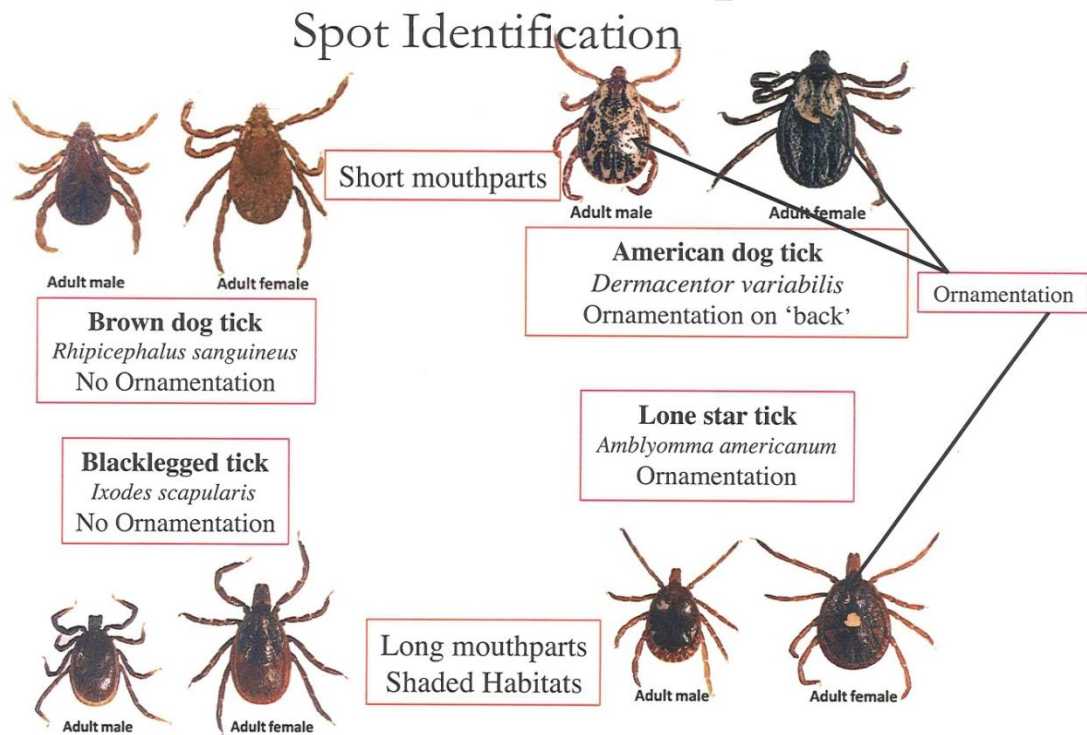
In Montana and Wyoming, yellow jackets, honeybees, and paper-nest wasps are the only flying insects that sting when they feel threatened or agitated. In the summer months, it is very common to find them around water sources, and they will be attracted to standing water. The key to dealing with stinging insects is to prevent contact with them by avoidance. If you notice one of these insects in the area, re-think where you are stopping or camping. If you see a hive or a nest, move to a different area.

If someone in your group is stung, administer first aid. Be sure to have medical cards (Blue and Yellow Cards) for EVERY person on your trip so you know who has allergic reactions and who needs medications. If someone is stung, and they do not have allergies, a topical insect bite relief ointment is sufficient. If there is swelling around the site, oral Benadryl or another antihistamine can help relieve this. If you know someone is allergic to stings, allow them to administer their own medication. An antihistamine may be enough, but the “patient” should know if they need an epi-pen injection, and they should know how to inject themselves. Epi-pens give anti-histamines enough time to work, but by themselves will only provide short-term relief. Once the epi-pen is injected, calmly and immediately contact emergency medical services and evacuate to gain access to medical services.



## Ticks

# Four Ixodid Ticks of Importance



© G.R. Needham, The Ohio State University

Photos courtesy the Tick Research Laboratory, Texas A&M University  
<http://tickapp.tamu.edu/>

## Tick Removal

If you find a tick attached to your skin, do not panic. There are several tick removal devices on the market, but a plain set of fine-tipped tweezers will remove a tick effectively.

Use fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.

- 1) Pull upward with steady, even pressure. Do not twist or jerk the tick. Be sure to remove the entire head and all mouth parts from the attachment site.
- 2) After removing the tick, thoroughly clean the bite area with rubbing alcohol or soap and water.



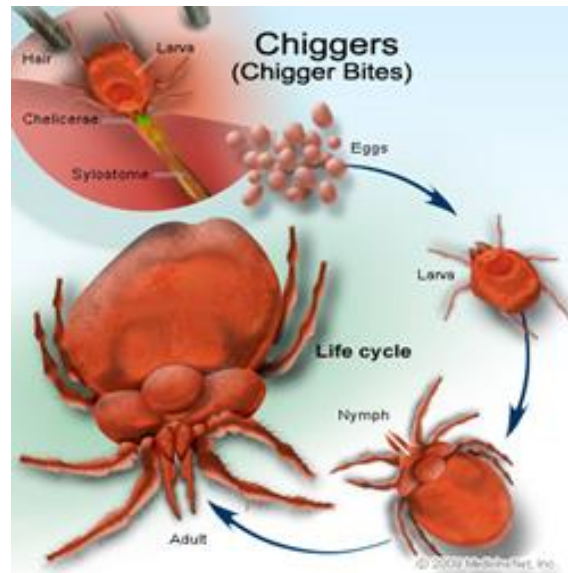
Avoid folklore remedies such as "painting" the tick with nail polish or petroleum jelly or using heat to make the tick detach from the skin. Your goal is to remove the tick as quickly as possible--not waiting for it to detach. Keep the removed tick in a sealed baggie in case you begin to feel sick and need the tick analyzed. Tick bite illnesses can take anywhere from 3 to 30 days to show.

### Prevent tick bites:

- Tuck in your shirt; tuck pants into socks; and wear closed shoes instead of sandals.
- Wear light-colored fabrics so you can easily see ticks on your clothes.
- Cover skin with long-sleeved shirts, long pants, and hats.
- Avoid wooded and brushy areas with high grass and shrubs. Walk in the center of hiking trails.
- Apply Permethrin to clothes and fabrics to prevent tick bites. Do not apply this chemical directly to the skin. You only need Permethrin if there is a high concentration of ticks and/or the area is known for tick-borne illnesses.

## Chiggers

Chiggers are not very common in our area, but it is still good to know about them and how to handle chigger bites. Chiggers most commonly live in forests, grassy fields, gardens, parks, and in moist areas around lakes or rivers. Most of the larvae that cause chigger bites are found on plants that are relatively close to the ground surface, because they require a high level of humidity for survival. Chiggers are the tiny larvae of chigger mites. When the chiggers are larvae, they feast on animals and humans. Full grown chigger mites only eat from soil and vegetation.



Chiggers attach themselves to skin and use an enzyme in their saliva to break down skin cells. The enzyme causes skin cells to dissolve and causes surrounding cells to harden and form a “straw” so the larvae can suck-up the dissolved cells. Chiggers eat for a while and then move rapidly from one part of your skin to the next. Contrary to folklore, chiggers do not burrow under your skin. You can easily remove chiggers with a quick wipe of your skin.

### Chigger Bite Prevention

Avoid chigger bites by bringing a washcloth into chigger-infested territory. Intermittently wipe your ankles, calves, backs of your knees, and inner thighs with the cloth. Mosquito repellent also repels chiggers, so apply repellent regularly. Take a warm, soapy bath immediately after chigger exposure.

### Chigger Bite Treatment

Prevention is the best way to deal with chigger bites. But what if you already have bites? Since chigger bites don't start to itch until about an hour after you've been bitten, you may not know to deal with chiggers until after the itching begins.

First, take a warm bath to remove any remaining chiggers. Unfortunately, your body will take time to heal from the bites, and the itching may continue for several days. Use topical analgesics and diaper rash cream to sooth skin and antibiotic ointment to prevent a secondary infection from scratching. Scratching at bites will make the itching worse. You may use oral painkillers and topical numbing agents to help you resist scratching as much as possible.

## **Larger Animals**

### **Bears**

- Before venturing outdoors, contact the land management agency for the most up-to-date information on bear activity.
- Make noise while hiking, especially when approaching blind curves or in areas with running water that may hide your noise. You're best protection is to let bears know you are approaching, so they can leave the area.
- Watch for bear tracks, scat, and tree scratches. You may wish to turn back if you see evidence of bear activity in an area.
- Learn how to use, and carry bear spray. Park and forest rangers often have practice canisters, and they will be happy to teach your troop how to use bear spray.
- Prevent bear encounters by staying in a large group. Make noise to prevent startling a bear. Be especially aware when you approach a bend in the trail, tall and thick shrubs, and near creeks where the noise level could prevent the bear from hearing your group's arrival.
- If you encounter a bear, do not run. Stick together as a group so it is easy for everyone to be near someone with bear spray. Do not threaten the bear, but act big and self-assured. Talk to the bear so it knows you are human and not prey.
- If the bear charges, use your bear spray.
- If the bear attacks, fight for your life. Protect your stomach and neck. Your backpack also serves as a shield to your back and your vital organs.
- More information on bears is available at: <http://igbconline.org/>

### **Black Bear vs. Grizzly Identification**

*Where available, you may have access to free "Bear Aware" material from the local Fish, Wildlife, and Parks office. Call your regional FWP office to ask for bear aware pamphlets and educational materials and opportunities.*

Grizzly and black bears vary in appearance and behavior. While it is important to know the difference between the two, please note that either species can be very dangerous and can cause damage and personal injury. For a very detailed course in bear identification, please refer to the FWP web site:

<http://fwp.mt.gov/education/hunter/bearID/>

Black bears can be black, blue-black, dark brown, brown, cinnamon and even white. Grizzlies, likewise, may range in color, from black to blond. Although grizzly bears are, on average, significantly larger than black bears, size is not a good indicator of which species is which.



To identify different species of bear, the best indicators are the size of the shoulders, the profile of the face, and the length of the claws. The grizzly bear has a pronounced shoulder hump that the black bear lacks. Grizzlies have a concave facial profile, smaller ears, and much larger claws than the black bear. Black bears have a flatter nose profile, larger ears, no visible shoulder hump and smaller claws.



## Mountain Lions

- Stay alert near trees and large rock formations. Lions may attack from above.
- If you see a mountain lion, pick up a stick and make noises to alert the animal. Sound aggressive, and act confident to intimidate the lion. Gather your group to appear bigger and more dangerous. Prevent the singling-out of any person in your group, and yell at the lion.
- Big things frighten lions. Make yourself look big by opening your coat and standing tall. NEVER bend over, crouch, run, or turn your back on a lion.
- NEVER allow children to wander in the forest by themselves. They may appear to be a small animal to the lion. Lions typically attack the smallest, slowest, most exposed individuals in a herd - even in a herd of humans. Keep your herd tight and together! Try throwing things at the cat.
- If attacked, fight for your life and scream for help. Protect your stomach and neck.



## Common Tracks

HIND



BOBCAT

COYOTE

DOG

MOUNTAIN  
LION

## Other Animals

- Never approach or startle dogs, horses, squirrels, rabbits, chipmunks, birds, deer, or any other animal no matter how harmless they seem.
- Do not feed any animals and make sure you do not leave any food around after you stop for lunch or a snack. Animals who know you have food may bother you and may get “too close” or even aggressive.
- Step off the trail and yield to hikers with dogs or horseback riders. Everyone should step off the trail on the same side, preferably the uphill side.
- If you see a dog on the trail, do not approach it, and do not startle it. Let it know you are there by saying, “Hello”, but do not call for it to come to you, and do not reach out to it or try to pet it. Even if the dog is on a leash, do not attempt to pet the dog. Your dog may be very kind and would never harm a child, but not all dogs are nice. A dog owner may invite girls to pet the dog, but make sure every adult in the group is comfortable with this.





- If you see horses approaching on the trail, say “Hello” to the horseback riders. Step off the trail and make sure all riders are visible and that no one is in position to startle a horse. Horses startle very easily and can buck off their riders or can kick anyone that is too close. Make sure everyone in the group remains relatively still while the horses are near.
- Approach other people on the trail with caution, as well. Groups should keep annoying sounds to a minimum out of respect for other users. People go to the woods for respite and relaxation, so be sure to respect their desire for solitude, as well. It is certainly rare that you would ever find an aggressive person on a day hike, but leaders should always take proper precaution around other humans.



## **Rabid Animals**

It is very rare to come across a wild animal with rabies. There is a very small chance you may run into a wild animal or even a domestic animal with rabies. Animals with rabies will act differently than other animals. They may drool, seem paralyzed, act erratically, be irritable or strangely quiet; they may attack instead of run away.

- Nocturnal animals may come out in the day if they are injured or sick (i.e. rabid).
- NEVER attempt to interact with an animal that appears rabid.
- Seek immediate medical attention if any animal bites a camper.

## **Animals and Human Behavior**

Human behavior is half of the equation in a positive wildlife encounter. Here are some more tips and reminders on human behavior and preparations for safe outings:

- Ask the local Forest Service rangers, BLM, Sheriff, or other authorities about recent bear activity in the area.
- Carry and know how to use bear pepper spray for emergencies.
- Let someone know where you are going and when you plan to return.
- Travel in close groups of three or more people whenever possible.
- Schedule your outings during daylight hours, and be sure to build-in extra time before sunset in case your trek lasts longer than expected.
- Stay on trails or roads when possible.

- Watch for signs of bears such as bear scat, diggings, torn up logs, turned over rocks, and partly consumed animal carcasses.
- Make your presence known by talking, singing, carrying a bell, or other means, especially when near streams, berry patches, or in thick forest where visibility is low. Most bears will avoid humans when they know humans are present.
- Do not approach a bear; respect their space and move away from their space fast.
- Camp away from trails and areas where you see grizzly signs.
- Even when you are at an established campground, keep a clean camp at all times. Keep tents and sleeping bags free of odors. This means cook away from your sleeping quarters. Also, do not take food into your tents, and do not take any smelly lotions, lip balms, toothpaste, or other toiletries with scents into your tent. Keep good smelling things in the car.
- Avoid cooking smelly foods like fish.
- When you are camping out in the backyard, store all smelly things inside. When you are car camping farther away from home, the easiest way to store smelly things is in your car. It is important to store smelly foods and things away from your camping gear even if you are in your backyard away from “bear country” because other animals, like rodents, may still be attracted to good smells. It is also good to practice storing your food safely to prepare for trips when you will be in bear country. Scents can remain in your camping gear from one trip to the next, so air-out gear between trips and launder gear that smells like food.
- Do not sleep in the same clothes you wore while cooking or eating.

## Food Protection

- Why do we need to protect our food when we are camping? If we do not protect it, we can lose some or all of our food, equipment can be destroyed, and we risk being injured or killed by animals coming into camp searching for food.
- We must protect our food from bears, insects, raccoons, and rodents. To protect food, first, do not feed wildlife. When people feed wildlife, animals can become used to human food, putting humans and animals at risk. Even the slightest bit of food, perhaps dropped through the crack of a picnic table, can negatively influence animal behavior. Human food can also make animals sick.
- Bears that rely on human food are more likely to become aggressive and a nuisance. Forest managers may have to kill a bear that relies on human food. Studies show bears that rely on human food are likely to be overweight, are less active, and they delay finding a den longer than average bears. Fed bears, therefore, are more susceptible to hunters and car accidents.
- Car campers and backcountry travelers must take the responsibility to protect their food and to leave no trace. In Montana and Wyoming, bears are a risk everywhere you camp. The range of land of grizzlies is growing each year. Unlike some regions of the country where food protection may be more of a choice than a necessity, in Montana and Wyoming, food protection is a MUST!
- When car camping, ask your local campground host for the best way to protect your troop's food. Some campgrounds provide bear proof cabinets. Some have hanging poles so you can hang your food. Some campgrounds will recommend you keep your food in your car. In any case, simply putting your food in a bear safe location is only part of the battle. Be sure to follow LNT principles to ensure you do not leave the smallest trace of food to entice animals into your campsite or campground.
- When possible, you will want to keep your sleeping, cooking, and food protection areas 100 yards apart. If you are not camping in an established campground, plan for proper spacing. Spacing ensures that food odors will not infiltrate your sleeping area. Many wildlife species will come out at night, and if they smell food in your sleeping area, they may be tempted to investigate your tent.
- If you are camping in an established campground, it is not possible to cook 100 feet from your sleeping quarters. In this case, be sure you do not cook in your sleeping clothes, and pack your food and cooking clothes in a bear-proof location at bedtime. In addition, make sure you clean up your campsite thoroughly after each meal or snack.

- Other means of protecting your food include hanging food bags or using bear-resistant food canisters or bags. Both of these methods are essential when backcountry camping, but they can also be used while car camping to ensure that your vehicle does not get damaged. Using canisters and bear hangs is also good practice to prepare for a camping trip requiring use of these methods.
- To hang a food bag, look for a site and make all preparations to hang food during daylight hours. Find a site that meets the following requirements: about 10 to 12 feet off the ground (the higher the better!) and 6 feet from the nearest tree trunk.

### **Bear-Resistant Containers versus Bear Hangs**

Bear hangs have been the traditional method of protecting food from critters, but recently, bear-resistant containers and bear-resistant bags have proved to be more effective. Bear hangs are only effective when done exactly right, which is hard even for an experienced backpacker. Bear hangs rely on suitable trees and terrain, which are usually very hard to find.

Canisters are easier to manage than hanging food bags, but canisters are often small and expensive. If you camp frequently with your troop, bear proof canisters or bags are a good investment. Bear containers are available for rent at many outdoor retailers, and some national parks and forest rangers loan them to campers.

Bear canisters are durable, odor-tight, plastic cylinders. They have specially designed lids that resemble childproof medicine bottle caps and are designed so bears cannot open or break them. These canisters are the most effective way to protect food, and they have been tested against grizzly bears. Some national parks require the use of bear canisters when backcountry camping. Check with the national park or local ranger districts for recommendations on whether to hang or bring bear canisters when camping away from your car. You do not need to hang the canister. Simply conceal it at least 50 feet from your tent or sleeping area. Keep the outside of your canister very clean. Bear-resistant bags, made of Kevlar or similar materials, are also effective for food protection. These bags are often easier to pack than a bulky canister. A curious animal could crush your food in a bag, but at least the animal cannot eat the food. There are many other bear-resistant containers you can use while car camping or backcountry camping with pack animal assistance.

The Interagency Grizzly Bear Committee's (IGBC) keeps an updated list of recommended bear-resistant products. Find the most recent downloadable list here: <http://igbconline.org/certified-products-list/>.

GSMW recommends bear resistant containers over bear hangs except when a specific park or forest has their own regulations. Our manual will show you how to set up a bear hang, in case you camp somewhere that specifically requires a hang or you run

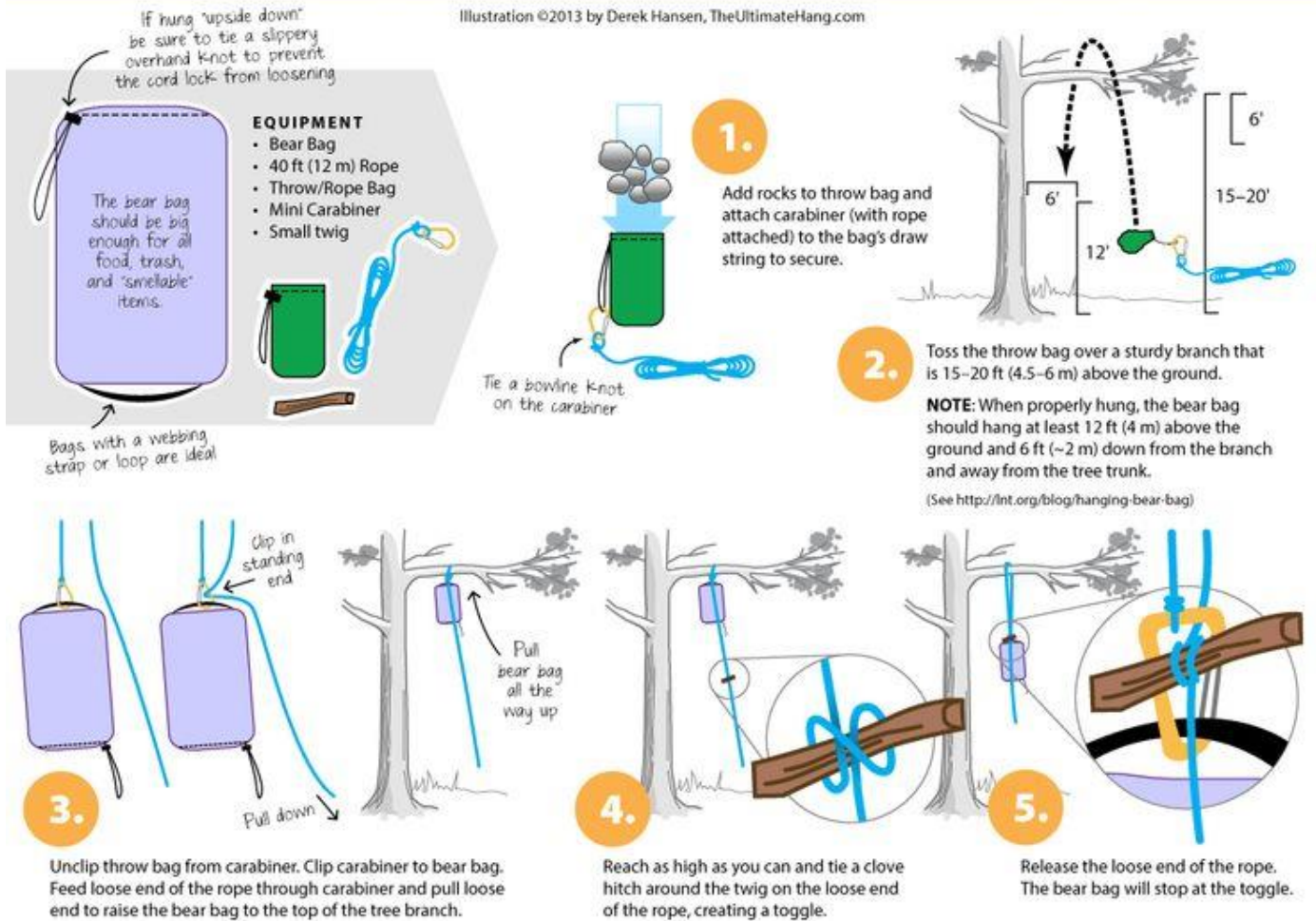
out of space in your bear container. Only use bear hangs as a back-up or emergency method of food protection.

### How to Set Up a Bear Hang

First, attach a water bottle or weighted bag to the end of 30 to 40 feet of paracord or rope. Hook a carabineer to the other end of the cord. Throw the weighted end of the rope over a sturdy branch that hangs at least four feet away from the tree trunk. Secure food in a sturdy, preferably odor-tight, bag, and affix the bag to the carabineer. Pull the cord to raise the food at least 10 feet. Wrap the long end of the cord around an adjacent tree to secure the rope. Make sure to practice your bear hangs before going on your camping trip.

## HANGING A BEAR BAG—THE "PCT" METHOD

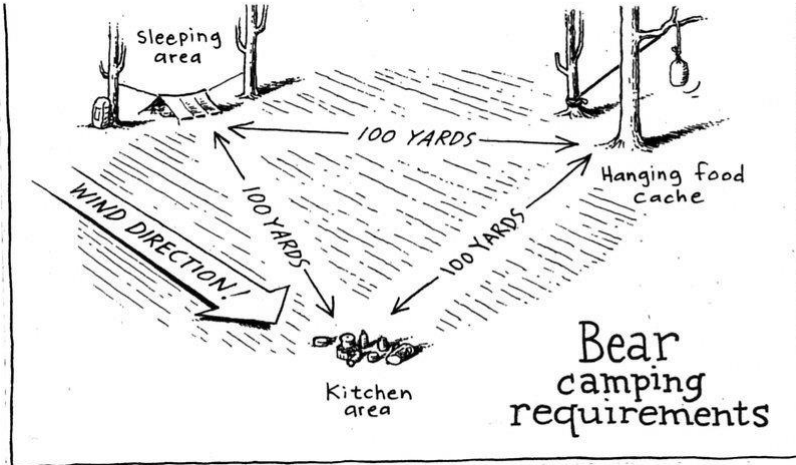
Illustration ©2013 by Derek Hansen, TheUltimateHang.com



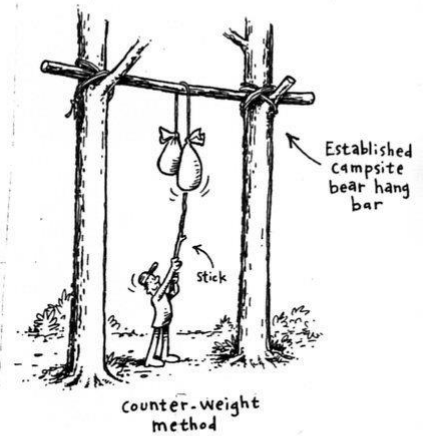
Allen & Mike's Really Cool  
**BACKPACKIN'  
 BOOK**

Traveling & camping skills  
 for a wilderness environment!

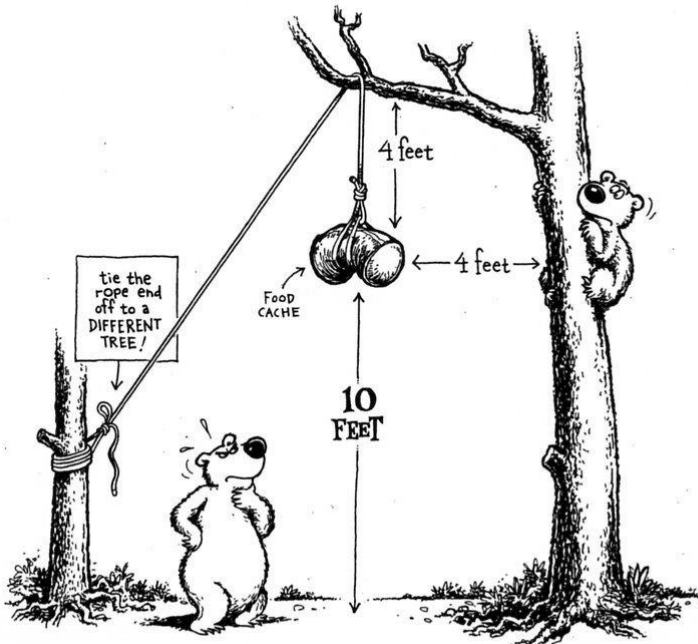
Allen O'Bannon  
 & illustrations by Mike Clelland!



Bear  
 camping  
 requirements



counter-weight  
 method



BEAR HANG  
 (TWO TREE HAULING TECHNIQUE)

# Introduction to Hiking

## SAFETY

- Have a plan and share it with someone who is not going on your trip.
- Stick together. If you get separated from the group, STOP! Stay where you are, and listen. If you can hear your group, yell. Remain where you are until they come back.
- Be “Bear Aware” and aware of any other dangerous animals in the area.
- Check the weather forecast and prepare. Always pack a raincoat.
- As a leader, always pack extra water, extra layers, and a first aid kit.

## Hiker Responsibility Code

The Hiker Responsibility Code is a set of principles intended to help hikers understand their responsibility for safety. The hiker code acknowledges the inherent danger of hiking in the backcountry and encourages hikers to thoroughly prepare every time they plan to be on the trail.



### **You are responsible for yourself, so be prepared:**

**1. Knowledge and gear.** Each individual should know about the terrain, conditions, local weather, and equipment before starting the hike.

**2. Leave your plans.** Tell someone where you are going, the trails you are hiking, when you will return, and your emergency plans.

**3. Stay together.** Start as a group, and hike as a group. Pace your hike to the slowest person in the group. Let your slowest hiker be the leader!

**4. Turn back.** Weather changes quickly in the mountains. Fatigue and unexpected conditions can also affect your hike. Know your group’s limitations. Know when you need to postpone your hike. The mountains will be there another day.

**5. Prepare for emergencies.** Even if your hike is short, an injury, severe weather, or a wrong turn could become life threatening. Do not rely on Search-and-Rescue. Know how to rescue yourself.

**6. Share the hiker code with others.** Teach your troop and your friends.



## **Physical condition & Readiness**

Physically condition yourself and your troop before setting out on a hike. If your troop wants to hike at high elevations, be sure to acclimatize everyone to the altitude prior to hiking. Set a comfortable pace. Understand everyone's medical conditions, discuss your plans with health care providers, and gain council approval before departing. Make sure you have the skills you need for your camping or hiking adventure. Simply completing GSMW's Outdoor Training is not enough training for all outdoor excursions. You may need to know how to read a compass, erect a temporary shelter, or give first aid. Before hiking, practice outdoor skills with your troop.

### **Participants carry their own backpack on a hike.**

Backpacks can hold everything you need without being too heavy. For a day trip, each participant will need:

- Accessible whistle
- A rain jacket, poncho, or a garbage bag (make a hole in the bag for your head)
- 32 ounces of water
- Trail food - enough for the hike and an extra, hearty snack
- A fleece jacket or vest
- Flashlight

**Extras for your pack.** A leader can carry group gear like a first aid kit, sunscreen, and insect repellent.

- Additional socks
- Hat
- Insect repellent
- Sunscreen and sunglasses
- First aid kit
- Compass and map or GPS unit
- Emergency blanket
- Camera
- Field guide
- A journal and pen

### **During the hike.**

- Wear sneakers or hiking boots, not sandals. Bring extra layers of clothes.
- Stay with your group.
- Always wait at trail junctions.
- Be a responsible hiker. Follow Leave No Trace principles.



**If you get lost**

- STAY IN ONE PLACE.
- If you're lost with someone else, stay together.
- Blow your whistle every few minutes.
- Stay warm and dry. You can snuggle with your friend or dog. Put on your extra layers. Most of your body heat escapes through your head, so cover it with a hat or scarf. Do not lie on the bare ground because that will make you colder.
- Do not hide. Stay in the open where searchers can see you. Put out something bright for searchers to see like a bandana.
- Protect yourself from wind and rain.

**Do not fear the outdoors**

- Wild animals do not like people. If they sense you are near, they will run away.
- If you hear a noise, make a noise back. If it is an animal, it will most likely run away.
- Stay with your group - animals are far less likely to approach groups than individuals.

# Tents

## SAFETY

- Tents must be made of fire-retardant materials.
- Never take a candle or an open flame into a tent. This means white gas/propane lanterns. They get hot and the fumes are toxic.
- Do not use gas space heaters in a tent.
- Do not pin anything to a tent.
- During heavy winds or when leaving your campsite, close and fasten all tent flaps.

## Things to Keep in Mind When Picking Out a Tent:



- How many people will be attending?
  - Number of girls and number of adults
- Where are you planning on camping?
- How many days will you be staying?
- What are the weather conditions for this time of year?
- Will there be certain obstacles present in your camping area?
  - Will the site be rocky, covered in trees or shrubs, will it be snowy, etc.
- Will you need extra space to store gear inside the tent?
- How far is your campsite from your car?

*Your answers will help ensure you have enough space for everyone and your gear.*

## Placement:

- Pitch tents in established and designated campsites.
- Place all tents in a horseshoe or circle with doors facing in.
- Tie strips of brightly colored fabric or bandanas to mark tripping hazards.
- Pitch tents at least 100 yards from streams and rivers, 300 yards from lakes.
- Do not pitch near a lone tree or near the tallest tree in an area.
- Avoid low areas or obvious runoff areas.
- Place tents away from food preparation and eating areas.
- Leave walking space around each tent.
- Absolutely no food in or near the tent.
- Pitch tents at least ten feet from the campfire circle.



## Pitching a Tent

Each tent comes with a unique set of directions, but many principles are common with all tents. Your troop should practice setting up tents before going camping. When practicing, check for missing parts and rips or tears.

### Directions:

- 1) Lay down a ground cloth or tarp to protect your tent's floor. To prevent moisture collection under your tent, make sure your ground cloth does not stick out beyond the edges of your tent.
- 2) Lay the tent on the ground cloth with the door facing the proper direction.
- 3) Lay out the poles and stakes where they will be needed.
- 4) Insert poles as directed. Depending on the type of tent, it is usually easiest to feed poles through sleeves or top clip first. Then, attach the ends of the poles to the tent corners. Finally, attach the remaining clips.
- 5) Stake the corners of the tent. Press stakes diagonally into the ground using only your hands. Using a mallet or rock can damage your stakes. Point the tip of the stake toward the tent at a diagonal.
- 6) Put your rainfly over your tent. Be sure the rainfly does not touch the tent. Use cording to pull the fly away from the tent and stake the cord into the ground at a diagonal.



## **Tent Tips**

- Open air vents to circulate air and prevent excessive condensation.
- Always keep bug screens zipped. This will keep rodents and insects out.
- Keep gear away from the sides of tent. Store excess gear in the car, under a tarp, or in another tent set up for supplies.
- If condensation occurs, open flaps and doors to air-out the tent during the day.
- Store stake and pole bags inside the tent in the tent bag.
- Do not force a zipper. Zip-up slowly and entirely. Keep the fragile tent material from getting caught in zippers.
- Bring extra tent stakes and poles.
- Do not store food or toiletries in tents.
- Pitch tents 100 feet away from the fire ring and kitchen area.
- Never spray bug repellent or sunscreen near a tent because it can remove waterproofing.
- Do not take any pointed/sharp objects into the tent.
- Do not hang anything on the poles. They might warp, bend, or collapse.
- To prevent mold, hang your tent to dry-out when you return from a camping trip
- If your tent gets moldy, check the booklet that comes with the tent for cleaning instructions.
- Slip shoes and boots off before entering tent. It will save wear on the tent floor. Be sure to sweep out the tent or shake it out before taking it down.
- Show respect for your tent mates' feelings. Agree on where each girl's sleeping bag goes, where to put gear, etc., so that everyone in the tent is comfortable.

# Fires

## **SAFETY**

- Choose your fire area wisely. Make sure there are no overhanging branches and clear an area at least 10 feet in diameter.
- Maintain a 3-foot buffer between the fire ring and where campers will stand or sit around the fire.
- Check to ensure that no one is wearing loose or dangling clothing or accessories.
- Avoid wearing nylon or polyester clothing near the fire.
- Tie back long hair.
- Refrain from running near a fire.
- If cooking around the fire, only the cooks may be within the buffer zone.
- Never bend over the fire.
- Do not use liquid fuel to start a fire.
- Teach girls stop, drop, and roll and how to smother a fire with dirt and a blanket
- Check with a county sheriff or park ranger for fire restrictions and bans.

It is the responsibility of the troop adults to check whether a fire ban is in effect at their campsite. Call the county sheriff or park ranger before making your cooking and campfire plans. Adults must supervise the fire very closely. Never leave a fire unattended. Remember to review fire safety procedures with your girls before starting a fire.



## **Ingredients for a Successful Girl Scout Campfire Experience**

Campfires can be a wonderful bonding experience for girls of all ages. This is an opportunity for girls to connect with each other and nature. This special time allows girls to discover their talents and skills and have fun together. Allow girls to take action and choose their own activities and ideas to make their campfire a memorable and meaningful time. Girls will enjoy songs, games, stories, and s'mores, around the campfire. Make sure you ask them what they want to do!

## **Ceremonial Wood Fires**

### **Ceremonial Wood Fire Supplies:**

Wood and kindling is often hard to find at conventional campgrounds. However, it is often illegal to transport wood from one forest to another. Firewood can spread invasive species, pests, and diseases that negatively affect the forest. If you want a ceremonial wood fire when you are camping in your backyard or when you are car camping, purchase wood from the forest/park you are in or a near-by source. If your troop plans to collect wood at the site, only collect down, dead, and detached sticks. Do not attempt to chop or break-off living/standing trees and branches.

### **You will need:**

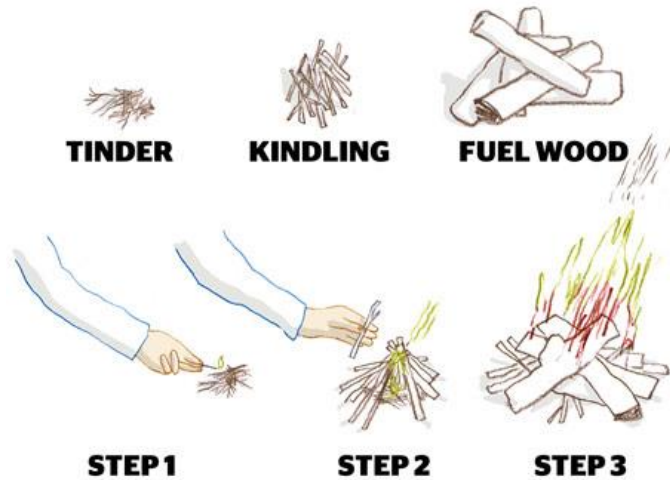
- A few handfuls of tinder: Thin, brittle sticks and splinters and dry, red pine needles
- A bucket of kindling: Dry sticks and twigs, one or two inches in diameter.
- Wood fuel: Firm wood, four and five-inch diameter logs. Larger logs will burn best if split, exposing its heartwood. If you bring thicker logs, bring a hatchet and know how to use it safely.
- Do not use liquid fire starter in a Girl Scouts fire.
- Firefighting equipment: A metal bucket full of water. Stick a stick into the water so little critters can crawl out, as needed. Girl Scouts call this stick a “critter-stick”. Also, bring a shovel to throw dirt on unruly sparks. You can also purchase camping fire extinguishers for added safety.
- Wooden safety matches.

### **Where to Build your Ceremonial Wood Fire:**

Use an existing fire ring or fireplace away from the base of trees and overhanging branches. The fire ring should be in a clearing at least ten feet in diameter. If your campsite does not have a fire ring, you will need to have a portable fire ring on a pedestal, or you will not be able to have a fire.

### **A Good Wood Fire**

- Do not start your fire too early.
- Make your fire just large enough to serve your needs and make thrifty use of fuel.
- Keep your fire under control and watch it at all times.
- Put out your fire when you finish enjoying or using it.



### How to Build a Fire

A fire needs oxygen, fuel and a spark or heat. Be sure that your starting method allows a good balance of fuel, airflow, and heat. The tinder, kindling, and wood will provide the fuel. The amount of oxygen reaching the flame will determine the how well the fuel will burn. The more you practice building a fire, the better you will get.

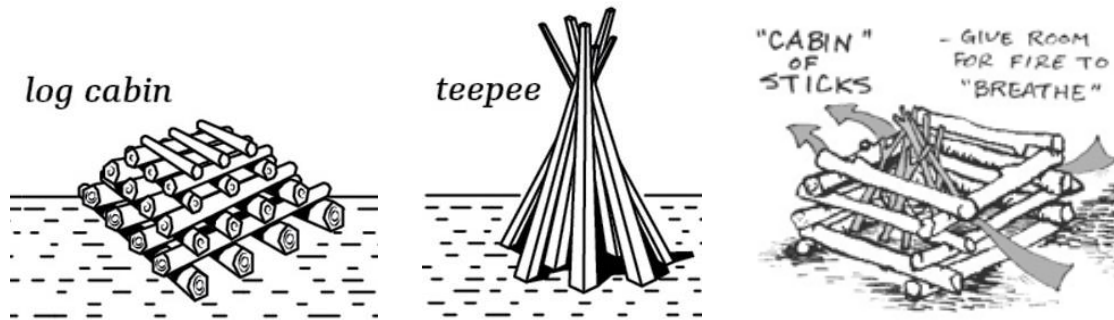
### Here is one example of how to start a fire:

- 1) With the wind at your back, begin with an A-frame foundation made with three sticks of kindling.



- 2) Lightly pile a handful of tinder in the angle of the sticks so that air can circulate. At this point, too you can add two homemade fire starters, but you do not need them.
- 3) Light the tinder and the fire starters from below.
- 4) As the flame catches, add small pieces of kindling.
- 5) When the fire is going well, gradually add fuel of larger sizes. Lean the added fuel on top of each other with spaces for oxygen to continue to flow.

**You can try building other sorts of fires like:**



**How to Extinguish a Fire:**

- 1) Use the critter stick to spread out the wood in the fire ring.
- 2) Sprinkle water over wood and ashes, and stir the contents with your critter stick. Sprinkle the water instead of pouring it because too much water at once can release a dangerous plume of steam.
- 3) Continue sprinkling water and stirring until the coals of the fire are cool to the touch. Slowly place your hand over the coals until you know you can safely touch them.
- 4) Use a wool blanket to smother a fire only in an emergency. Smothering a fire with dirt or water does not guarantee that the fire is out. Buried hot coals may smolder for days and start an underground or surface fire after you are gone. The only way to know a fire is out is to touch the coals to ensure they are cool.
- 5) It is okay to leave the ashes in the fire ring for those who follow. At established campgrounds, rangers often clean the fire rings, if needed.

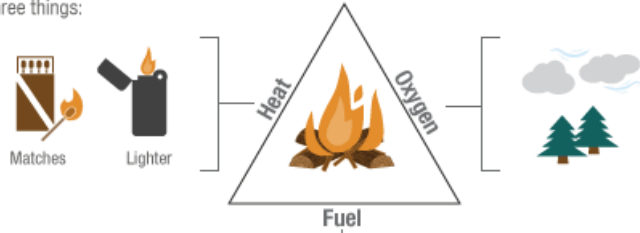
**Teach your girls:**

- How to put out a fire on their clothing: Stop, drop and roll.
- How to put out a fire: sprinkling water, not pouring the whole bucket on it.
- Do not use open flames in tents or enclosed spaces.



**THE FIRE TRIANGLE**

Fires need these three things:



**1 TINDER**



**2 KINDLING**



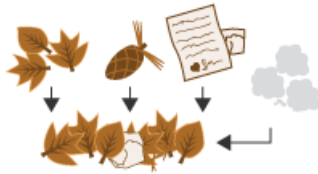
**3 CHOPPED WOOD**



**STEP ONE**

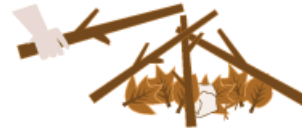
Make a loose pile of tinder. **1**

**TIP:** Don't pack too tightly. Air needs to get to all parts of the fire.



**STEP TWO**

Build a tepee with the kindling **2** around the tinder. Start with the small twigs first.



**STEP THREE**

Light the tinder from all sides.

**TIP:** You can blow gently on the fire to get it going. Fires need lots of oxygen.



**STEP FOUR**

As the fire grows, feed it with branches and eventually firewood. **3**

Enjoy!



**STEP FIVE**

Put out the fire by cutting one of the sides of the fire triangle. You can do this by covering it with sand or dirt, dousing it with water or letting wood burn out.

**Make sure it's cold before you leave!**



## **Troops can create homemade fire starters:**

- **Trench Candles:** Small pieces of newspaper, rolled and tied around the middle, and dipped in melted paraffin.
- **Egg-Cartons:** Place corrugated paper egg cartons on a pile of newspaper (for easy cleanup). Fill each cup with sawdust, lint, and/or wood shavings. Pour melted paraffin over the top of the filled cups. After cooling, break cups apart.
- **Fire Kisses:** A small piece of paraffin or candle stub wrapped in wax paper like a candy kiss or Tootsie Roll. Twist the ends of the paper to keep it closed. The ends serve as an end to light.
- **Waxed Cardboard:** Pieces of corrugated cardboard, dipped in paraffin.

## **Treating burns**

- 1) First, cool the burn and stop the process of the burn by pouring cool/tepid water on the burned area.
- 2) Loosely wrap sterile rolled gauze or a clean cloth over the burn to decrease pain.
- 3) For burned fingers, wrap each finger loosely and separately with sterile rolled gauze. Do not wrap fingers together because they could stick to one another.
- 4) If possible, remove burned clothing because it can continue to smolder. If the fabric is stuck to the burn, do not remove it. Cool the clothing with water or a wrap it in a blanket so it does not continue to burn.
- 5) Acquire medical help as quickly as possible. Quick medical response means less chance for infection and a quicker recovery.

## **Edible Campfires**

*Edible campfires are a cute and fun way to talk about fire safety before your campout.*

### **Things you will need:**

- Paper Napkin = Clear Space
- Jelly Beans or M&M's = Fire Ring
- Coconut = Tinder
- Pretzel Sticks = Kindling
- Potato Sticks = Matches
- Red Hots or Candy Corn = Fire
- Pretzel Logs, Licorice, Twizzlers, or Tootsie Rolls = Fuel
- Mini Marshmallows = Fire Starters
- Cup of Juice, Water = Fire Bucket
- Spoon = Shovel
- Coffee Stirrer or Popsicle Stick = Critter Stick

**Edible Campfire Directions:**

- 1) First, “clear an area of debris at least eight to ten feet around your fire ring. Make sure there are no overhanging branches.” Open up and spread out the napkin. Move any clutter back. Discuss safe places to make a fire.
- 2) Construct your fire ring. Arrange Jelly Beans or M&Ms on the napkin in a wide circle at least 5” in diameter.
- 3) Fill your bucket with water and place a critter stick in it. The stick will allow a “critter” who accidentally falls into the bucket to climb out. Put water or juice in the cup.
- 4) Put your shovel nearby. Put the spoon nearby.
- 5) Lay the A-frame using kindling. The opening (the bottom of the A) needs to be facing you and your back needs to be to the wind so that the fire can get oxygen. Lay down three pretzel sticks so that they form a capital “A” with the cross-piece on top of the two legs.
- 6) Place the fire starters in the center of the A-frame, with two or three under the crosspiece. Distribute a few mini-marshmallows in the A-frame.
- 7) Now add tinder. Sprinkle coconut throughout the center of the A-frame.
- 8) Hold a match under the crosspiece of the A-frame and light the fire starters. If the fire is built correctly, the instructor can add Red Hots or Candy Corn to show that the fire is lit.
- 9) Add kindling. Add more pretzel sticks.
- 10) When the kindling is burning well, add fuel. Add pretzel logs, Twizzlers, or Tootsie Rolls.
- 11) After the leader approves each fire, girls can eat their campfire, leaving a clean campsite!

# Outdoor Cooking

## SAFETY

- Closely supervise girls in the camp “kitchen”.
- Only one girl should manage the stove or fire at a given time.
- Refrain from wearing dangling clothing or accessories around the camp stove or fire.
- Under close supervision, girls trained in knife safety may cut food at designated stations, one per cutting board.
- Designate a 5-foot diameter “safe area” around the kitchen where only cooks are allowed.
- In the “safe area”, clear all sticks and rocks or anything that could make the cook trip.
- When lighting a stove, do not let the gas run too long. Let the gas dissipate before trying to light it again. Do not light it with your head over the burner.
- Always pour hot liquids away from yourself.



**Closely supervise girls in the camp “kitchen”.** Limit the number of girls cooking at one time. Use a [kaper chart](#) to determine who cooks, and take turns throughout the day/campout so each girl gets a chance to try cooking. Only one girl should manage the stove under close supervision. Each girl managing a knife must complete an adult-led “knife safety” program, and adults should supervise each assigned “cutter”.

**Clearly define the “kitchen” space with a border.** Create a “safe” area about five feet in diameter around the “kitchen”. Only the assigned cooks can be in the “kitchen” borders. At a public, “front country” campground, cooking areas should be about 15 feet from tent sites. No one should walk through, reach over, or engage in horseplay near the fire or stove in the “safe” area. In addition, the cooking area should be located in an area free from hazards that could trip, poke, or hinder the cook’s safety. In the backcountry, the camp kitchen needs to be at least 100 feet from tent sites.

**When lighting a stove,** do not let the gas run too long before pressing the ignite button or lighting it with a lighter. If you need to, turn off the gas, and let the gas dissipate before trying to light it again. Never place your head above the stove when

lighting. If someone inhales cooking gas and then lights it, they could burn their face, esophagus, or lungs. Inhaled and combusted stove fuel can cause serious injury or death.

**When handling hot pots and pans**, girls and leaders should use potholders and/or gloves. When pouring from a pot or a fry pan, direct the pour away from yourself. Do not pour hot liquids into a handheld container. Instead, place containers on a flat, stable platform or on the ground. Keep an empty pot handy. You can use an empty to smother errant flames. Eliminate loose or dangling clothing and hair in the kitchen. Only use hand services for cutting. Do not cut “in the air” or on your leg, and always cut away from yourself.

### **Proper Sanitation**

Ensure the following before cooking:

- Wash hands with soap and water before handling food or utensils.
- Clean cooking and food prep surfaces.
- Prevent cross-contamination of raw meats and uncooked foods.
- Keep dirt, grass, bugs, etc. out of the food.
- Do not share cups, plates, or silverware without sanitizing them first.
- Avoid handling food and others’ utensils if you are ill, have broken skin, or have a skin infection.

### **Hand-Washing**

Remember to sanitize during your outdoor excursion! Place your handwashing stations near the bathroom or latrine and another near the kitchen area. If available, to minimize environmental impact, use established hand-washing stations or indoor plumbing. Remind girls to use the stations regularly.

There are several ways to build hand-washing stations. Here are some ideas:



## **Dishwashing**

Keeping things clean can be a challenge during outdoor adventures. When setting up your wash station, think about where your water source is located, who will be washing dishes, and the amount of dishes they are washing.

Your washing station should consist of three washing containers or dish pans: The first should contain warm, soapy water for washing; the second with warm, clean water for rinsing; and the third with sanitizing water. To sanitize, use a tablespoon of bleach or vinegar in water.



Never wash dishes in a pond, lake, or stream. When your troop travels into the backcountry, modify your dishwashing station to accommodate the need for less weight a bulk. Consider using collapsible bowls, buckets, and dish bins.

Avoid health problems resulting from dirty dishes by following the procedures below.

### **Dishwashing Supplies:**

- Rubber scraper or spatula
- 3 large dish bins
- 1 bucket
- Hot water
- Garbage bag
- Cleaning pad, sponge, or nylon scrubber
- Biodegradable soap
- Long rope (for hanging dunk kits)
- Bleach, vinegar, or iodine
- Clothes pins

### **Directions for Dishwashing Set-Up:**

1. Tie the rope between two trees that are about 15-20 feet apart.
2. Place a garbage bag at the beginning of the line of three dish bins. Place the garbage bag in a bucket, if you like. Place your dishwashing station on a durable surface with good drainage.
2. Fill the first dish bin with hot, soapy water.
3. Fill the second bin one with hot, clear rinse water.
4. Fill the third bin with one capful of bleach or vinegar.

### **Dishwashing Procedure**

1. Scrape dishes into the garbage bag with a rubber scraper or spatula.
2. Wash dishes in hot, soapy water, scrubbing to get food particles off (dishpan #1).
3. Rinse in hot water. Make sure all traces of soap are removed (dishpan #2).
4. Immerse dishes for one minute in the bleach solution (one TB bleach/vinegar per gallon of cold water) as per County Health Department (dishpan #3).
5. Put dishes into a dunk bag and secure the bag to the rope with a clothespin.
6. Strain the dishwater before broadcasting the wastewater (flung over a wide area). Choose a location away from your campsite and at least 100 yards from rivers or streams and 300 yards from a pond or lake. Pour dishwater through an old nylon or small strainer and into a bucket. Toss strained food particles into the garbage. Rinse and disinfect dishpans by first straining and broadcasting pan 1, then pouring pan 2 into pan 1 and straining/broadcasting, and finally pour pan 3 into pan 2 then pan 1 before straining/broadcasting.

### **Food Storage**

- Use a well-insulated cooler to maintain safe food temperature. Ice blocks last a lot longer than ice cubes.
- Plan as much of your menu as possible with foods that do not require special storage. Simple menus also allow for more time to enjoy your time outdoors.
- Cover food to keep out flies and dirt.
- Cook all meat well-done.

## **Progression in Outdoor Cooking**

Girls may begin with no-cook foods and one-pot cooking. As your troop gains cooking skills, try more advanced techniques including cooking over coals, Dutch oven, stick cooking, vagabond stoves, and cardboard box ovens.

The easiest meals involve dehydrated food. Cup O' Noodles, Ramen, and other dehydrated meals only require boiling water to cook. You can also have fun grilling hot dogs with ease, heating soups, and making grilled cheese! Camp stoves operate much like a home gas stoves. The flame can be harder to fine-tune, so camp stoves often burn hotter and meals need more attention. Camp stoves and pots are also thinner and heat up faster than indoor pots & pans, so keep an eye on your food at all times for safety and so food does not burn. Small backpacking stoves require the most attention – they burn very hot in a very condensed flame, so use extra caution.

## **Cooking with Camp Stoves**

### **What You'll Need**

If you choose to use a camp stove, make sure you have compatible fuel canisters for your stove. Many camp stoves have an ignition button, but you may need a lighter.

Protect kitchen pots and pans from fire by coating the outside with dish soap. The camp kitchen box should include two pots, pot grips (for use with camping pots), if needed, a fry pan, metal or heat resistant serving spoon and spatula, metal or heat resistant cups, bowls, and spoons, and potholders or thick cotton gloves.



If you're camping in your yard, know where the closest fire extinguisher is. When car camping, you can have a camping fire extinguisher handy. Also, keep a box of baking soda handy if you are cooking with oil or oily foods.

Check out the GSMW camp recipe book for easy meals you can cook without a stove or with a simple camp stove.



## **Cooking with Fire**

### **Choose Your Fuel**

Girl Scouts need to choose their method of cooking depending upon availability of fuel, environmental impact, cost, safety, and the kind of cooking to be done. We encourage troops to use charcoal or camp stoves whenever possible. Gas stoves are permitted during fire bans, but charcoal and wood fires are not permitted.

### **Charcoal Fires**

Charcoal is a slow-starting fuel, so allow for plenty of time before you need to cook (at least 20- 30 minutes). Charcoal will give you a nice bed of coals for toasting, baking, and other kinds of coal cooking.

Charcoal is great for barbequing, stick cooking, roasting marshmallows, and nestling Dutch ovens. For recipes for stick cooking, Dutch oven cooking, and other methods of cooking with charcoal and camp stoves, please check out GSMW's outdoor cooking recipe book.

### **Where to Build a Charcoal Fire:**

- In a fireplace or fire ring that meets the same safety standards as those for wood fires.
- In a fire pan that does not allow ashes or coals to fall on the ground. This could be a designated fire pan or the pan from the bottom of a charcoal barbecue.

### **What you Need:**

- Charcoal. Keep in mind that some brands burn hotter/better than others.
- Fire starters: solid ones that you can make at home (e.g. trench candles, egg carton, kisses, etc.). Never use liquid fire starter, even on charcoal. You can buy charcoal infused with fire starter or use a charcoal chimney (below).
- Firefighting equipment: a metal bucket full of water and a shovel for each fire. Put a "critter stick" in the bucket.
- Wooden safety matches.
- Charcoal chimneys: A device that helps charcoal heat to cooking stage faster. You can build your own by using a large coffee can or #10 can with both ends removed. Punch holes around each edge with a can opener, punch another series of holes around the middle, and attach a wire or coat hanger for handle.

## How to Build a Cooking Fire:

- 1) Place your charcoal chimney into your fire pan/ring/place.
- 2) Place tinder (newspaper) and a couple fire starters into the bottom of the can, then fill the top of the chimney with charcoal. You can mix a bit of kindling or a couple fire starters in with the charcoal, too.
- 3) Light the tinder from the bottom of the chimney.
- 4) In 20-30 minutes, the charcoal will start to look gray. Using a heavy-duty potholder and/or heat-rated gloves, lift the can and pour the coals into the fire pit/ring. Spread the charcoal evenly to maximize your cooking space.



## How to Extinguish:

- 1) Put out a charcoal fire in the same way you would a wood fire - by sprinkling water and stirring the coals.
- 2) Drop partially burned hot coals into a bucket of water and allow the coals to sit for an hour or more. (After dried, these briquettes can be reused)

## Stick Cooking

Stick cooking starts with a good stick like a toasting fork, a wire coat hanger, or whittled sticks. You can easily wash and re-use store-bought or hanger cooking sticks. It is sometimes difficult to find the ideal natural wood stick at a campground. As with any utensil, wash your cooking sticks before each use. Closely supervise girls next to the fire, and keep in mind that young girls may not have the patience to wait until food is thoroughly cooked. Check out the recipe book for more information on kabobs, roasting cheese cubes, and even making desserts on sticks. If your troop uses natural wooden cooking sticks, burn them completely after their use. Do not leave them in your campsite because they will attract animals.

## Dutch Ovens

You can use Dutch ovens for countless cooking projects. Dutch ovens are perfect when cooking with charcoal.

Cooking with a Dutch oven is a lot like cooking in your kitchen at home. You can regulate the temperature with charcoal as you might with your oven temperature gauge. Baking requires both top and bottom heat.

Use the “Rule of Three” to determine baking temperatures. An easy way to remember the formula is “**3 up, 3 down = 325°**”. This formula is based on the oven’s diameter (the number stamped on the lid) and the use of full-size charcoal briquettes.



**\*\*\*The formula works this way\*\*\***

DIAMETER + 3 = # of briquettes required for top heat &

DIAMETER - 3 = # of briquettes required for bottom heat = at baking temperature of 325°

For instance, with a 10” diameter oven, you would subtract 3 from the size (= 7) and arrange that number of coals in a checkerboard pattern under the oven. Add 3 to that number (= 13) and arrange that many coals in a checkerboard pattern on the lid.

Sometimes a recipe calls for oven temperatures hotter or cooler than 325°. It takes two briquettes (one on top and one on bottom) to provide 20° to 25° of heat. So, using the formula as a guide, you can modify the 325° baking temperature by adding or subtracting briquettes. For instance, if your 10” Dutch oven needed to be at 375° to bake a cake, you would add 4 more coals (2 on the top and 2 on the bottom) to get that temperature.

For frying, steaming, or boiling, add 3 to 6 briquettes on the bottom and eliminate the top heat. Reduce the bottom heat for simmering.

## Vagabond Stoves

These stoves are used for preparing individual portions of hamburgers, French toast, fried eggs, pancakes, and grilled cheese sandwiches. Make your stoves and buddy burners at home or at a troop meeting. It is nice to have one set for each person. Girls can then practice cooking their own meals, and meals can be prepared quicker. The drawbacks include a greater need for supervision as there will be several cooks and several stoves rather than one or two cooks and a single stove/BBQ/fire.

### **Vagabond Stove Supplies:**

- Metal #10 Can
- Work gloves (leather or heavy cloth)
- Triangular wire
- Hammer
- Tin snips
- Piercing can opener (one that opens pop bottles and makes the triangle cut in tin cans)

### **Directions:**

Wearing work gloves, use the tin snips to cut out a door about 3” square on the side of the can at the open end.

1. Use the can opener to make three or four holes near the top of the can, opposite the side the door is on. Push the cut-outs into the can, flush with the side of the can, to prevent injury.
2. Use the nail and hammer to punch two holes on the opposite sides of the can at the closed end for a handle.
3. Put the ends of the wire through the holes. Bend up the wires flush with the sides on the inside of the can.

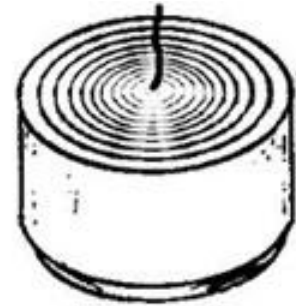
- **Now you have a vagabond stove.** The open end of the can is the bottom, the air holes near the top serve as a chimney.
- Use this stove with a small fire, canned Sterno (“canned heat”), or Buddy Burner - (see below how to make a buddy burner).
- Using work gloves, place the stove over the lighted Buddy Burner. Caution: Do not touch the stove – it will get VERY hot! Using work gloves, move the door to control the heat.
- One burner will last through several cookouts. You can always refill the buddy burner with cardboard or wax.
- After the stove is heated up for the first time, wipe the finish off the tin can with a paper towel.
- Always clean the top of the stove before it is stored.



## Buddy Burners

### **Buddy Burner Supplies:**

- Shallow tin can (tuna or cat food can)
- Corrugated cardboard (you can also add wood chips/sawdust)
- Scissors
- Paraffin wax or old candles (don't use really strong scented candles)
- Pot to put wax in
- Pot to use as a double boiler to put water in
- A piece of string to use as a wick



### **Directions:**

1. Cut the cardboard into strips slightly narrower than the depth of the small can.
2. Roll the cardboard strips into a coil and place into the can. If you are using wood chips, spread the wood chips evenly in the can. The materials should not stick out above the can.
3. Melt the wax in a double burner.
4. Dip the string in the wax.
5. Pour the wax over the cardboard/wood chips/sawdust in the can.
6. Let the wax harden.

**THEN:** Light the Buddy Burner with a match, place Vagabond Stove over top

**To extinguish the Buddy Burner**, remove the Vagabond Stove with potholders.

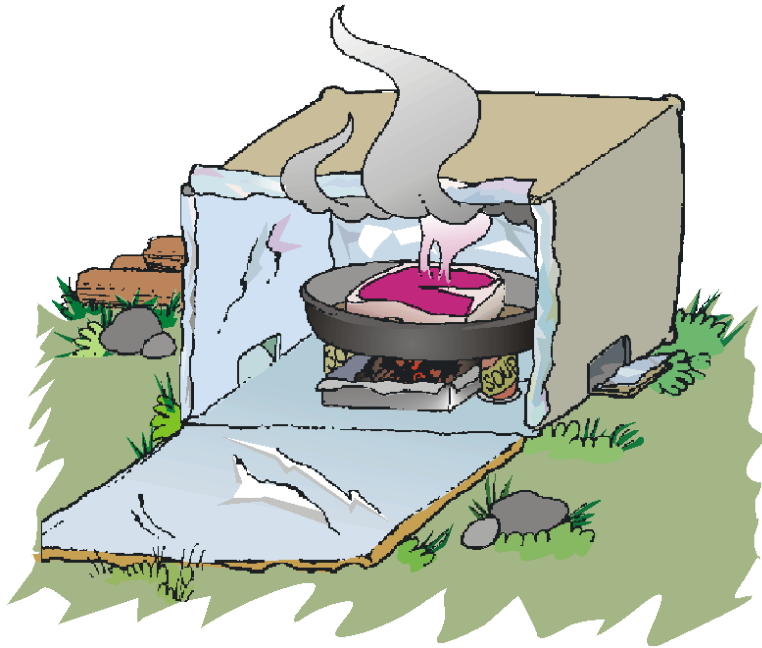
**Caution:** Stove will be VERY hot. Smother the flame by turning Vagabond Stove on top of it to smother flame. **Caution:** The Buddy Burner will be liquid and very hot. Wait until the wax hardens and cools before handling it.

## **Box Oven Cooking**

Your troop can use a box oven to cook anything you might cook in your oven at home. The box oven is a fun and creative way to expand your cooking options when camping.

### **Simple Box Oven Construction Materials:**

1. Duct tape
2. Pot holders
3. Tongs
4. Matches
5. Water bucket
6. A cardboard box (cardboard files box is a good size – approximately 16 in. x 12 in. x 10 in.)
7. Large roll of heavy duty aluminum foil
8. Four small empty cans (soda or soup can size work well)
9. Two aluminum pans: one slightly larger than the other; the larger must be smaller than the box in length and width by at least 1 inch in all directions
10. Charcoal briquettes (amount depends on what you are cooking – see below)
11. Fire starter material
12. Small stone (no larger than 1 inch diameter)



### **Directions:**

1. Place a sheet of foil (shiny side up) that is slightly larger than the box opening on the ground where you will be cooking. Anchor the corners with small stones. Put the larger cooking pan on top of the sheet of foil.
2. Light the charcoal in a charcoal chimney, or place the charcoal on tinder in the smaller of the two cooking pans.
3. While waiting for your charcoal to turn gray:
  - build the box oven (see below) and
  - prepare the food you will be cooking (see below)
4. Once your charcoal is mostly gray, dump the coals into the larger pan and spread it to the edges of the pan in an even layer.

**Note:** each charcoal briquette will be approximately 40 degrees; 9 briquettes will create a 350 degrees oven temperature. Varying the number of briquettes is how you can vary the oven temperature to fit your recipe.

5. Place your baking/cooking dish on top of the cans over the charcoal. You can also put a baking rack on top of the cans to stabilize your structure.
6. Put the fully constructed box over the cooking dish. (**Note:** you can also create your box oven like the one in the picture where you would fold the flap(s) in to close the oven. Different boxes will require slightly different procedures.)

**Construct the box oven:**

1. Completely cover the inside of a box with foil. The foil should also cover the outside edges of the box by at least four inches.
2. Secure the foil to the outside of the box with duct tape, making sure no tape is on the inside of the box (it will burn).

**Box Oven Food preparation:**

Anything you bake at home, you can bake in a box oven. Consider starting your box oven baking experience with a prepared package of cake mix, brownies, muffins, corn bread, etc. As your troop's baking skills advance, consider creating your own culinary delight: fruit cobbler, mini pizza, cinnamon rolls, etc. Follow the same baking directions and use the same baking dishes you would in a conventional oven.

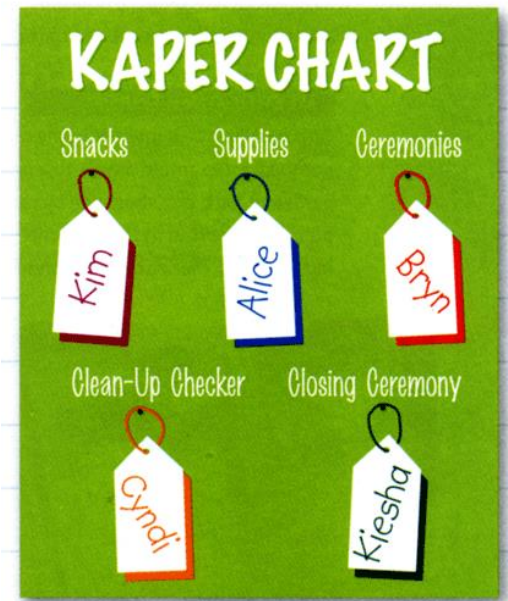
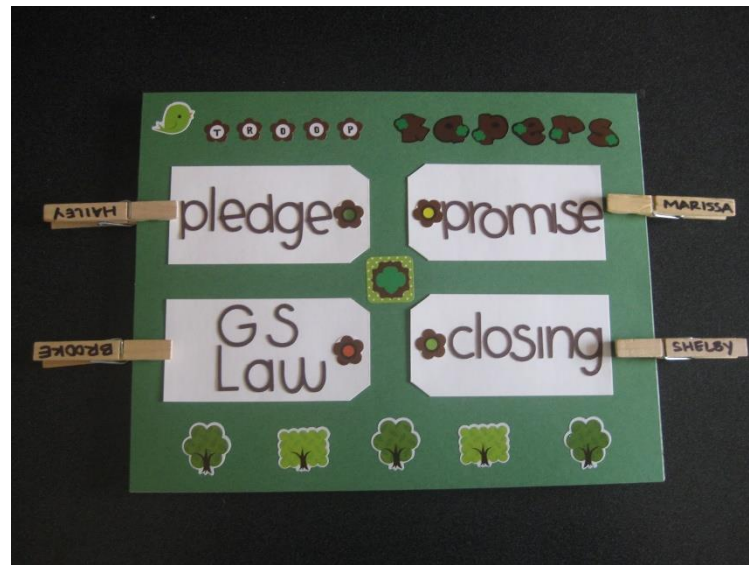


# Kaper Chart Basics

## What is a Kaper Chart?

A Kaper Chart is a great way to divide the duties that come with any troop meeting, trip, or event.

Your troop can make a kaper chart in many different ways. You can assign girls to specific duties individually, in a group, or in a traditional “patrol” or “unit”. Each patrol/unit/group can have a code name, too.



## Why do We Use Kaper Charts?

The division of duties gives every troop event or meeting a built-in opportunity for girls to take the lead, to learn by doing, and to work together for the better of the group. A chart also helps build accountability as girls start to hold each other and themselves responsible for accomplishing necessary tasks. Using kaper charts also ensures that no one is stuck doing all the work.

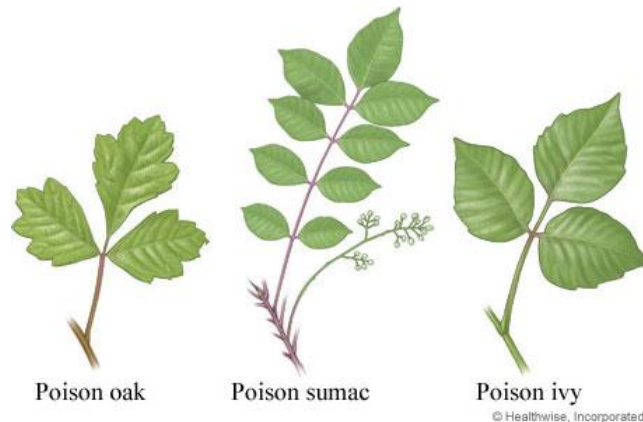




# Plant Identification

## Poisonous Plants – “Preventing a scratchy situation”

- Avoid contact!
- Educate yourself and girls as to the various forms of poisonous plant life. Talk to local outdoor specialists and rangers about the prevalence of certain poisonous plant species in the areas where you will be venturing.
- Poison Ivy and Poison Oak: “Leaves of three, let it be.”
- Poison Sumac: 7-13 staggered leaflets with one on the tip of the plant.
- Wear long sleeves, pants, and closed-toed shoes if camping or hiking in poisonous plant habitat.



## What to do if exposed:

- Immediately cleanse area with plain soap and water. (Fels-napa soap is a good tool for washing exposed areas.)
- Remove and isolate all exposed clothing, shoes, and tools. Wash these items as soon as possible.
- Contact parents. If symptoms develop, the girl will need to go home for more care and comfort.

## Edible Plants

While in the wilderness, remember we are visitors, and Girl Scouts leave things better than we found them. Although there are many safe and even edible plants throughout the mountains of Montana and Wyoming, we have to be cautious. Encourage your troop to observe plants, take pictures, and leave plants, flowers, and berries for other people to enjoy.

## Field Guides

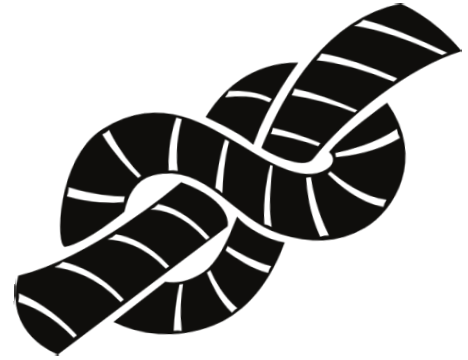
*Field Guide to Rocky Mountain Wild Flowers, Rocky Mountain Flora, and Edible & Medicinal Plants of the Rockies* are all good field guides for plants in the GSMW region. If you want a guide to plants, geology, animals, weather, and more, check out this all-in-one field guide: *Rocky Mountain Natural History: Grand Teton to Jasper*.

# Basic knots

- A good knot will hold fast, will not jam, and can be untied easily.
- There are more than 8,000 knots, each with its own use
- Knots involve one strand of rope and hold their shape independently
- Hitches involve two ropes or a rope and an object (i.e. a pole or ring) and require the second rope or object to hold their shape.

## Use knots and hitches to:

- Join ropes, cord, or strings
- Keep ropes from slipping
- Form loops
- Secure ropes to objects
- Make slings for holding objects

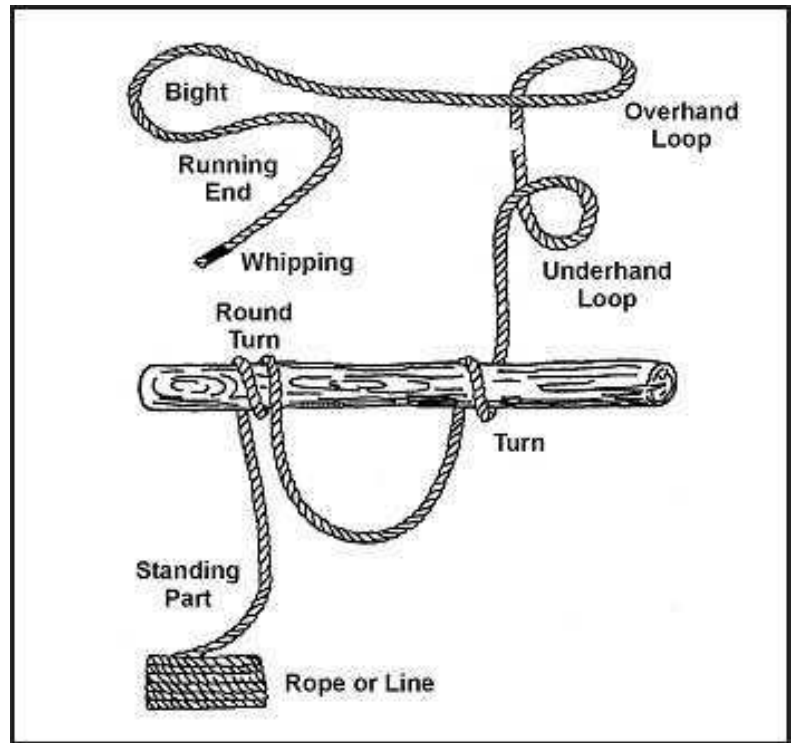


## Teaching Knots

- Use cotton-braided cord, not nylon – popular paracord works best
- Use a four-foot piece of rope
- Tape, melt, or “whip” ends of the cord or rope to prevent unraveling
- Use red and blue tape to color-code the ends of the rope when you are teaching girls. Red is the “standing” end, and blue is the “running” or “free” end. Once the girls have mastered a knot, have them practice without the color coding.
- Explain and show example uses of each type of knot
- Over time, use games periodically to practice knots so girls won’t forget them. (*Knot So Fast* is a fun game you can find at a store or you can make your own version)
- Avoid using “right” and “left” when giving directions. Instead, use “red” or “blue” or “standing” and “running”.
- Girls should be able to identify a knot by how it looks when completed

## Knot Terminology

- **Bight** - A simple bend of rope in which the rope does not cross itself.
- **Dressing the knot** - The proper orientation of the final knot parts. Neglecting proper dressing can result in a 50 percent reduction in knot strength. Dressing the knot involves tightening all parts of the knot so they bind on one another and perform optimally. A loosely tied knot can easily deform and malfunction under strain.
- **Loop** - Form a loop by crossing the running end over or under the standing end to form a ring or circle in the rope.
- **Overhand loop** - A loop formed by bringing the running end OVER the standing end.
- **Underhand loop** - A loop formed by bringing the running end UNDER the standing end.
- **Running end** - The free or “working” end of a rope. The running end moves as you tie the knot.
- **Standing end** - The static part of rope that is not “running”.
- **Turn** - A loop around an object such as a post, rail, or ring with the running end continuing in the opposite direction of the standing end. A “round turn” circles the object and exits in the same general direction as the standing end.
- **Whipping** - Any method of preventing the end of a rope from untwisting or becoming unwound. Whip a rope or cord by wrapping the end tightly with a bit of tape.
- **Wraps** - Simple wraps of rope around two poles or sticks (square lashing) or three poles or sticks (tripod lashing). Wraps begin and end with clove hitches. All together, they form a lashing.



## Overhand Knot

This is a very secure knot that should be used when you want a knot that is permanent.

### Uses:

- To prevent slipping of rope through a block, hole, or part of another knot.
- To prevent fraying of end of the rope.



### Directions:

1. Make an overhand loop with your rope.
2. Take one end of your rope and stick it through the loop you just made.
3. Pull both ends of the rope tight.

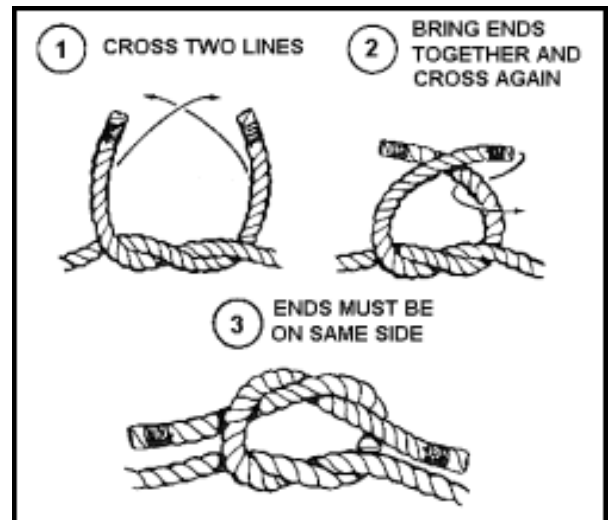
## Square Knot

Ties and unties easily, yet holds firmly. The load bearing ends are on one side.

### Uses:

- To join two ropes of equal thickness
- To tie up bundles
- To tie a bandage

It is useful for tying down non-critical items that do not experience heavy loads, such as sails around a boom. However, the square knot can easily jam or come undone, and as such should NOT be depended upon for important tasks.



### Directions:

1. Tie an overhand knot with the right end on top of the left.
2. Tie another overhand knot; this time with the left end on top of the right.
3. Pull the ends of the line away from each other to tighten the knot.
4. Untie the knot by pulling the free end and standing part of one rope in opposite directions.

## Sheet Bend Knot

The sheet bend knot is structurally related to the Bowline Knot and is considered an essential knot to know.

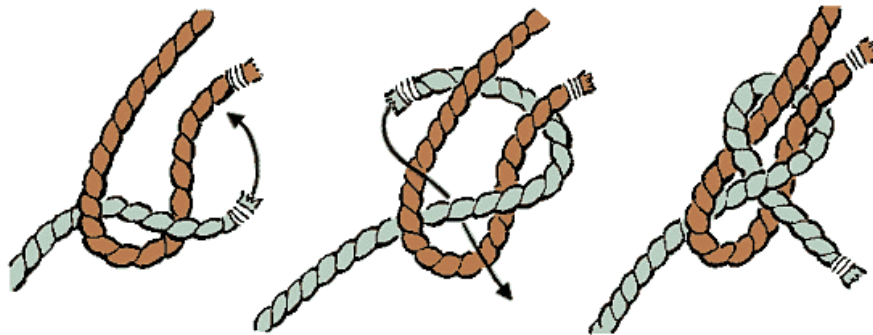
### Uses:

To join two ropes of different thickness

### Directions:

1. Pass the end of one rope through the bight of another.
2. Go around both parts of the other and under its own standing parts.

sheet bend



## Clove Hitch

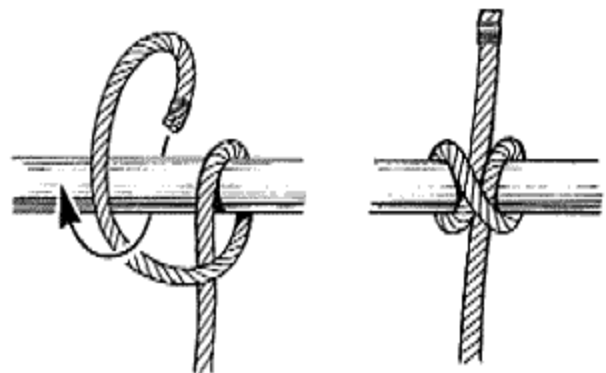
The clove hitch is an easily tied and easily adjustable hitch. However, the clove hitch, is prone to slipping under heavy loads when used alone. It should not be used when safety or holding strength is paramount.

### Uses:

- To fasten one end of a rope to a tree or post.
- To tie a clothesline.

### Directions:

1. Wrap the working end around the object.
2. Cross the working end over the standing end, and wrap the working end around the object again.
3. Tuck the working end under the crossing you just made.



Clove Hitch

## Round Turn and Two Half-Hitches

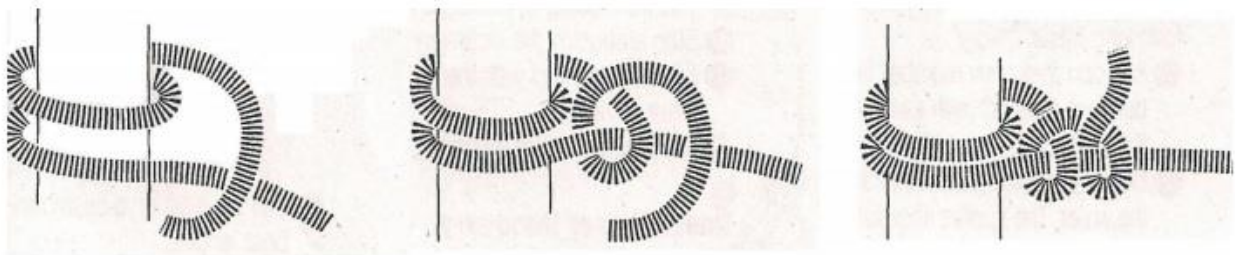
This knot is a secure hitch that is easily untied even after holding very heavy loads.

### Uses:

- To fasten a rope temporarily and quickly to a post, ring, or hook
- To tie up a rolled sleeping bag
- Holds against steady pull on the standing part
- Forms a sliding knot that can change the tension of the rope

### Directions:

1. Wrap the working end of the line around the object 2 times.
2. Cross the working end over the standing end. Tuck into the opening made (forms 1 half-hitch).
3. Cross the working end over the standing end again. Tuck into the opening made (forms a 2nd half-hitch).

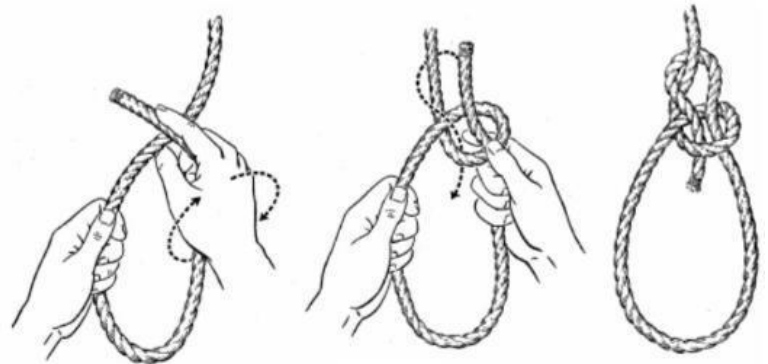


## Bowline

The bowline is used to make a secure, non-slipping loop in the end of a line. Its principle advantages are its resistance to slipping and binding, and its ability to be untied easily, even after heavy loads. Its primary shortcoming is that it cannot be tied and untied when a load is present on the standing end.

### Directions:

1. Make a counter-clockwise loop in the standing end. Pass the working end up through the loop.
2. Pass the working end behind the standing end, and back down through the counter-clockwise loop.
3. Snug the knot together by grabbing the working end in one hand and the standing end in the other and pulling them apart.

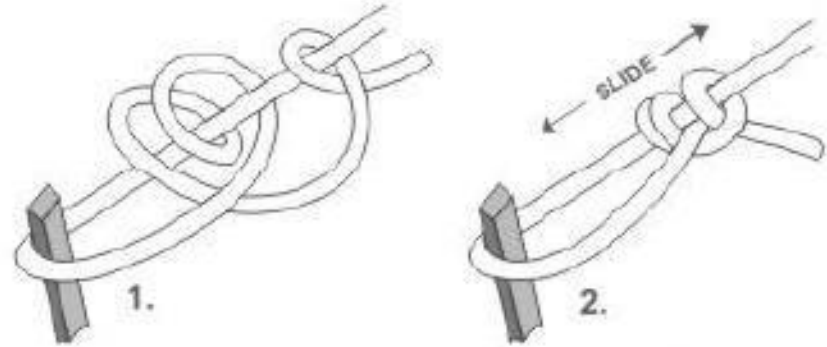


## Taut-Line Hitch

To make a loop that will slip. Use this knot on tent lines.

### Uses:

- To make an adjustable loop. The knot stays where it is placed even when placed under strain.
- To tie tent ropes so the tension can be adjusted before and after rainstorms.

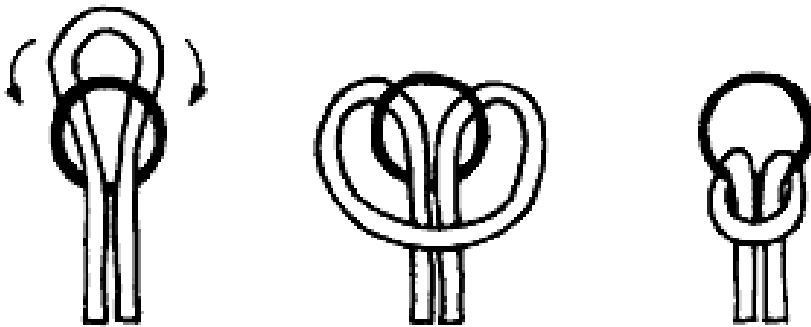


### Directions:

1. Pass the working end around the anchor object. Bring it back alongside of the standing part and make a half-hitch around the standing part.
2. Continue with another wrap inside the loop, effectively making a [round turn](#) around the standing part.
3. Complete with a half-hitch outside the loop, made in the same direction as the first two wraps, as for a clove hitch.
4. Dress by snugging the hitch firmly around the standing part. Load slowly and adjust as necessary.

## Lark's Head

Used to loop around a ring.



### Uses:

- Hanging dunk bags.

### Directions:

1. Fold the cord or rope in half.
2. Place the loop made at the halfway point behind your support (dowel or post or another rope or cord).
3. Take the loop over and in front of the support.
4. Place the two cord ends through the loop from front to back and pull to tighten.

# Knife & Tool Safety

## **SAFETY**

- When instructing girls, have an approximate ratio of one adult to every four girls.
- Be sure to tell the girls that they cannot handle the knives until they are instructed to do so.
- Girls cannot handle knives until an “Outdoor 2” trained adult is present to teach them how to use it.
- When instructing girls, have them establish their “safety circle” with enough room to walk between girls. A “safety circle” is a ring about an arm’s length in all directions around an individual.
- Girls should always double check their “safety circle” before opening a knife.

Girls who know how to use knives can be more independent, can take ownership of knife-related tasks (i.e. cooking), and can handle certain emergencies requiring the use of a knife.

Girls may not use sharp tools until a qualified adult has taught the girls how to use the tools and tested them for proficiency in the use of the tool. A qualified adult must supervise every girl using a sharp tool. Teaching knife and tool safety skills is an important Girl Scout tradition.

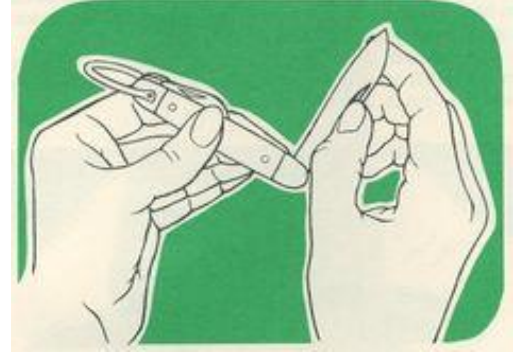
Just because a girl says she uses a knife at home does not mean she should use a knife at a Girl Scout event. As a volunteer, establish safety rules and expect each girl to follow the rules at all times.

At the same time, even if you think knives are “dangerous”, it is important to let girls learn to use knives and tools. The only proper way to teach a girl to use a knife/tool is to help them gain hands-on experience. Girls who gain respect for tools at a young age generally treat all tools with consideration and respect.



## Opening & Closing Knives

- Always use both hands to open a folding knife.
- Keep fingers on the sides of the knife.
- When closing, keep fingers to the side. Do not wrap fingers around the handle (or the blade).
- Always open and close a knife slowly and intentionally.
- Close the knife to carry it or when not in use.
- Close the knife before passing it to someone.



## Caring for Knives

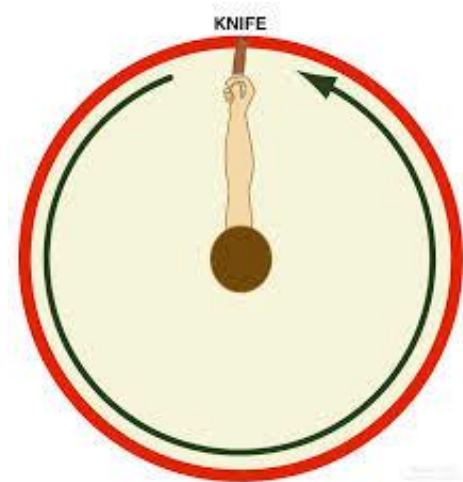
- Keep knives dry and off the ground.
- Keep knives away from dirt and sand.
- Keep knives away from open flames and extreme heat.
- Do not use your knife to pry things open, to hammer, or to “chop” on wood.
- Do not use your knife to cut rocks or metal.
- Use knives under adult supervision to cut, scrape, or whittle wood, food, or rope.
- Carefully clean your knife when you finish using it.

## Knife Etiquette

- Do not use knives to deface or disfigure property or living things.
- Knives are not toys. Do not wave or throw them in jest or in a threatening manner.

## Knife Use

- Maintain a “safety circle”.
- Hold knife by its handle, and keep a firm grip.
- Use only a sharp knife. Dull knives are dangerous.
- Keep your fingers and hand off the blade.
- When scraping or whittling, use “pushing” strokes away from your body.
- Before walking or running, put your knife down, or close it and put it away.
- Close a knife before passing it to someone. If the knife does not close, it is best to put the knife on the table rather than hand it off. If you must hand it off, hold the dull edge of the blade with the sharp edge facing the ground. Offer the handle to the intended receiver. The receiver should acknowledge that she or he has received it and has a grip on it by saying “Thank you.”



## **First Aid for Knife Cuts**

- If you have a severe, deep cut with lots of bleeding, apply direct pressure, wrap tightly in sterile gauze, elevate the wound above the heart, and get help.
- If you are helping someone with a cut, use latex gloves and sterile gauze. If you do not have gloves, instruct the injured person to apply the pressure themselves.
- If the cut is not bleeding severely, use lots of water to rinse the cut. Then, using gloves, apply antibiotic wash and ointment. Blot the cut dry before applying a sterile dressing or bandage.

## **Construct a Paper Jackknife**

When working with younger Girl Scouts, we recommend using “fake” knives to teach beginning knife skills. Use the pattern to construct your own paper or cardboard jackknives. Older girls can also make paper jackknives to use when they teach younger Girl Scouts.

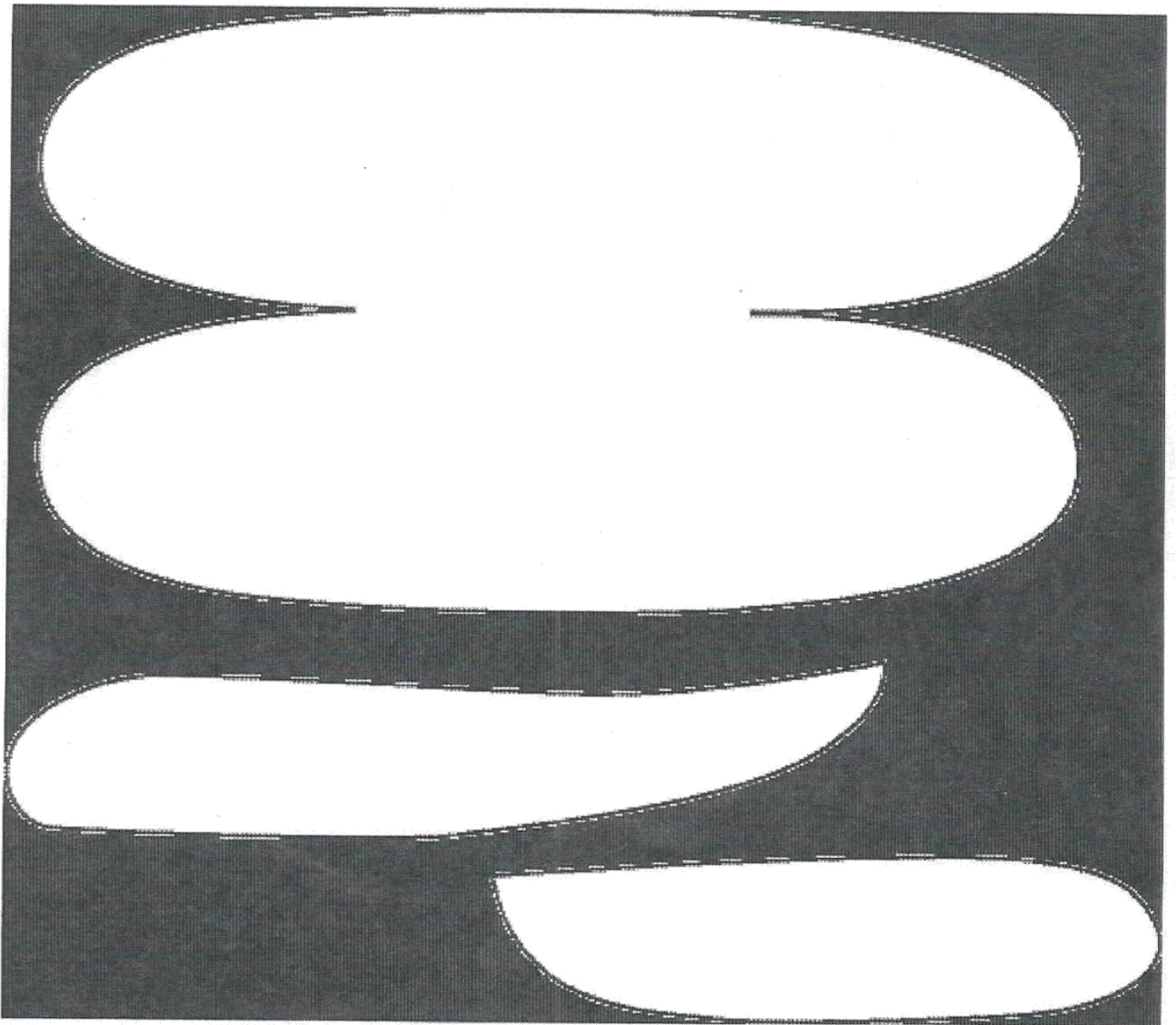
### *Materials:*

- Construction paper, card stock, cardboard, or fun foam
- Two  $\frac{3}{4}$ " brads
- Knife Pattern (see appendix)
- Scissors
- Hole punch

### *Directions:*

1. Photocopy or trace the pattern onto the material
2. Cut out the three pieces
3. Fold the body of the knife in two
4. Place the two knife “blades” into the knife body
5. Use the hole punch or scissors to create small holes for the brads
6. Insert the brads and flatten the ends

Paper Knife Pattern



## Ax & Hatchet Safety

Because of its size and the way in which it is used, an ax can be more dangerous than other wood tools. Remove the sheath only when you are prepared to use your ax correctly. Give it your full attention. Axes and hatchets take a lot of practice. Remain patient with yourself and your troop.



When splitting wood, wear safety goggles or full-coverage sunglasses. Work gloves are also helpful to prevent splinters and blisters. Always wear sturdy boots when you are chopping with an ax. Leather will not stop a blade from hitting your foot, but good boots may limit the extent of an injury. Always stand up to use an ax or a hatchet.

Make sure you have plenty of room and use your “safety circle” when handling and using an ax. Your safety circle must be larger to reflect the larger size of an ax. Check your clearance by holding your ax by the head. Slowly rotate the handle at arm's length all around you and over your head. Make sure you are far away from branches and other overhanging objects that might get in the way. While you are cutting, be certain other people stay at least 10 feet away.

You will most often use an ax to chop kindling or make smaller pieces of firewood from rounds. For this, you will need a flat surface on which to chop. You can use a large piece of sawn log (a stump) as your flat surface. We call a stump surface a “chopping block”. The chopping block should be about 2 feet high. Use of a chopping block will prevent an “over swing” or a miss from hitting your toes or legs.

To split wood rounds with your ax, stand with your feet balanced and shoulder-width apart. Firmly hold the ax handle with your dominant hand toward the blade you are your non-dominant hand on the end of the handle. Extend your arms and the ax to meet the top of the round on the chopping block to gauge the ax's distance to the wood. Raise the ax straight up above your head and then let it drop onto the wood. When it drops, your dominant hand should slide down from the top of the ax to meet your other hand. Avoid forcefully swinging the ax to prevent injury and strain.

To chop kindling, use a smaller ax or hatchet. After splitting some rounds, find smaller pieces to chop into slivers for kindling. Prop-up the smaller piece of wood with a “chicken stick” rather than with your hand. The “chicken stick” will protect your fingers. With the hatchet, tap the small piece of wood until it sticks on the blade. Once the hatchet is stuck in the wood, tap the wood on the chopping block or the ground as the hatchet works its way through the wood. Repeat until you have several small pieces of wood to use as kindling.

## **Safe Practice makes Safety Success**

Practice wood splitting techniques in a safe setting and, if possible, with a person who has experience splitting wood. You can also find valuable instructional videos on YouTube.

### **Safe carrying**

Place a sheath over an ax blade whenever it is not in use. Carry an ax at your side with one hand, the blade turned out from your body. If you stumble, toss the ax away from you as you fall. Never carry an ax over your shoulder.

### **Safe storage**

Sheathe your ax and store it in a box, a bear cabinet, in the trunk of your car, or in an adult's tent. On the trail, tie a sheathed ax to the outside of your pack.

### **Safe handling**

To pass an ax to another person, hold the handle near the blade with the head down. Pass the ax handle with the blade facing out at a right angle between you and the receiver. When your partner has a grip on the handle, she should say, "Thank you." That is your signal to release your hold.

# Introduction to Basic Outdoor First Aid

## SAFETY

- At any Girl Scout event, ensure you have a current First Aid or CPR trained adult.
- In case of an emergency, please follow the emergency procedures outlined in the most current Volunteer Essentials handbook.
- Always have a First Aid kit with you, and adapt your kit for specific activities.
- Restock your kit when you return home or back to camp.
- Before each trip or event, make sure your first aid kit is fully supplied.
- Delegate an adult as the primary first aider, and make sure everyone in the group knows who that person is.
- If you will be more than 30 minutes away from emergency medical services, have at least one currently certified Wilderness First Aider (WFA) or Wilderness First Responder (WFR) in your group.
- Online First Aid and CPR classes do not fulfill GSUSA's requirement for certification.



When adventuring and camping away from home, possibly out of cell phone range, and hours from a town, it is essential to watch for injuries and sicknesses that can become medical emergencies.

The best way to prepare yourself for an outdoor adventure is to take the proper certification courses. For overnight trips, outdoor adventures, and trips away from town, GSMW requires one first aid/CPR trained adult. If you will be more than 30 minutes away from access to emergency medical services, GSMW requires Wilderness First Aid training in addition to CPR.

These certifications are not just a requirement, they are essential to ensure the health and safety of all participants. When heading outdoors, there are special considerations regarding first aid. This handbook and the outdoor trainings will not certify anyone to implement “outdoor first aid”. This section of the manual is simply meant to heighten your awareness. GSMW strongly encourages volunteers to conduct additional

research regarding common outdoor ailments and the conditions that may be dangerous wherever your adventures take you.

Unless you are a doctor or trained medical professional, wilderness first aid or wilderness first responder courses are likely the only means to ensure you are doing all you can to prepare for health-related emergencies in the wild. These courses are more intensive and more costly than regular first aid courses. For more information, look into Aerie Backcountry Medicine, REI, or NOLS (National Outdoor Leadership School) for classes in Montana & Wyoming.

## **Steps in an Emergency**

If an emergency occurs while you are participating in outdoor activities, assess the scene for any dangers. What caused the injury? Was it an animal or a human that might return? If so, and if possible, remove everyone from the scene to a safer area. Is someone suffering from heat stroke? Try getting everyone to the shade quickly! The first step in any emergency is to make sure no one else suffers – including you!

The next step is to check the patient's airway to ensure they can breathe, and call 911 immediately. Of course, if you are out of cell phone range, calling is easier said than done. So, when you first approach your outdoor activity destination, check your phone regularly so you can determine the closest point with cell reception. Regardless, take your phone with you on the hike/adventure. Cell phone reception may be spotty, but you can still reach help if there is even a speck of reception. Keep these tips in mind:

- You should turn off your cell phone or radio (if you have one) to conserve batteries until you are ready to use it. In cold environments, you should warm up the battery before turning on the device so you do not drain it.
- Most new phones automatically fix your location when you make an emergency call, this is not a guarantee, and you can take a few steps to help.
- Before your trip, activate your phone's automatic location setting which enables E911 to calculate your position.
- Turn on your phone once a day for about 5 minutes when out in the field. Powered up phones check in with the nearest tower(s). Even if there's not enough signal to make a call, it can be enough to leave an electronic trail.
- Most devices work from line-of-site, meaning land features such as hills or heavy tree cover can block the signal. To make an emergency call, higher locations provide the best signal, hold your phone at arm's length and rotate around to find the best reception. Once you find the best spot, return to that spot for future calls.
- If you cannot get a call out with low reception, you might still be able to send a text. Text a reliable person you know with a simple message and your location.

- Before calling for help, take a few deep breaths, calm yourself, and think about your location and what you will say in the first few seconds. When a 911 operator answers, immediately state your location, cell phone number, identify yourself, and briefly state the emergency. The best information for giving a location is your coordinates. If you do not have coordinates, describe prominent features, miles from the trailhead, and elevation. Also, mention if you have emergency signals like a mirror or flairs, what you look like, tent color, and what group members are wearing. Answer the operator's questions quickly and concisely.

If there is a need to run for help (i.e. run down the trail to the car), always send people in pairs. Keep at least one person – preferably the one with the most experience in first aid or medical training - with the injured party and send two people down the trail. Any more than two people may slow the process of getting help.

Again, GSMW's Outdoor Training will not train you or sufficiently prepare you for administering any type of first aid. Online First Aid & CPR courses do not qualify for GSUSA's training requirements. Skills must be assessed in-person by a certified trainer. Any groups travelling over 30 minutes away from access to emergency medical services (EMS) must have at least one Wilderness First Aid or Wilderness First Response trained adult.

## **Injury Prevention**

Wilderness and outdoor injury prevention begins with planning, preparation, and problem anticipation. You can prevent outdoor injuries and emergencies by:

- Maintaining fitness, know their skill level and experience, and not exceeding personal and group limits.
- Check and maintain equipment, and replace it, if needed.
- Carry a first-aid kit (and, if appropriate for the situation, a two-way communication device).
- Tell others where you are going and when you will return.
- Follow the activity-specific "Safety Activity Checkpoints" found on the GSMW web site at: <https://www.gsmw.org/content/dam/girlscouts-gsmw/documents/Safety%20Activity%20Checkpoints.pdf>
- Ensure that you have a health history card for every girl participating in every Girl Scout event, program, or activity.



## **Injuries Outdoors**

Before your trip, refresh your first aid and CPR knowledge. Common outdoor injuries include burns from camp fires and cooking on a stove. When cooking outdoors, please follow advisories for proper outdoor cooking safety.

### **Flesh Wounds**

To clean a cut or other skin injury in the wilderness:

- Wear latex gloves
- Manually remove dirt and debris.
- Flush the wound with copious amounts of clean bottled water or water from a faucet.
- Apply a thin layer of an antiseptic ointment.
- Dress the wound with sterile gauze.
- If necessary, take the injured individual to a doctor for further assessment.

### **Snakebites**

If bitten by a rattlesnake or coral snake, two of North America's most common venomous snakes:

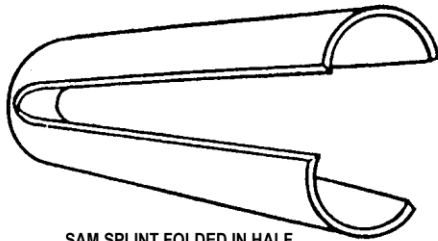
- Retreat out of striking range of the snake, which is at least its body length.
- If possible, call 911.
- Look for distinguishing traits that might help identify the species, like a rattle or facial pits/depressions. If you have a digital camera or camera phone, take a photo while maintaining a safe distance.
- Keep the bitten individual calm and still.
- Splint the bitten body part to limit unnecessary motion that could spread the venom. When splinting, leave room for swelling.
- Transport the victim to the nearest hospital immediately.

### **Head Injuries**

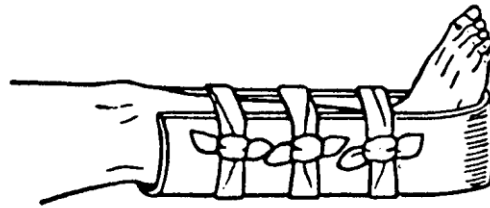
If someone has sustained a head injury:

- Protect the airway and cervical spine (i.e. neck) to make sure that the patient can breathe and that there will be no further damage to the spine.
- Carefully observe any victim who has lost consciousness briefly (less than one minute) for at least a few hours.
- Transport to a hospital anyone who shows worsening signs related to head injury. These include severe headache, blurred vision, nausea and vomiting, any change in mental status (declining alertness, ability to converse, or ability to follow commands), seizure, bleeding from the ears, bruising behind the ears or under the eyes, clear fluid draining from the nose, unequal pupils, or weakness in an arm or leg.

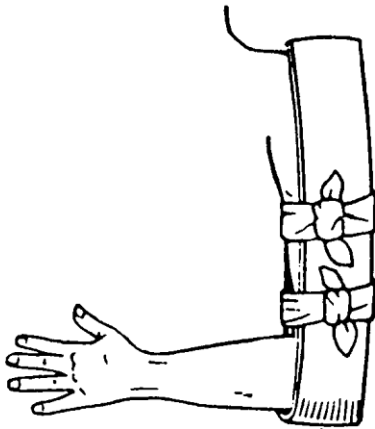
Common outdoor injuries also include muscle strains and bone fractures. These injuries can be very problematic and dangerous when you are hiking. Your first aid kit should contain equipment to stop bleeds and swelling. We also advise carrying a SAM splint that can help stabilize a myriad of sprains and breaks so patient evacuation is as comfortable and safe as possible. A couple of elastic (Ace) bandage wraps help secure splints. With very serious injuries, you must consider evacuation that requires supporting or carrying the patient. Splinting and evacuation techniques are specialized and most effectively executed by trained individuals who have practiced their outdoor first aid techniques.



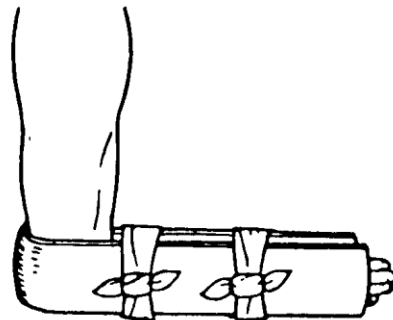
SAM SPLINT FOLDED IN HALF AND EDGES BENT



SAM SPLINT APPLIED TO A FRACTURED LEG OR ANKLE



SAM SPLINT APPLIED TO A FRACTURED HUMERUS



SAM SPLINT APPLIED TO A FRACTURED FOREARM

## **Illnesses Outdoors**

Illnesses can become medical emergencies. When in doubt, err on the side of caution. While some individuals may complain more than others, take every concern seriously. Please be aware of the following serious illnesses that can drastically influence your outdoor adventures:

### **Diabetic emergencies**

If you have individuals in your group who are diabetic, they most likely manage their disease quite well. If their routine changes, however, they may experience mild to severe complications. If the individual seems a little “out of it” or experiences headaches, anxiety, sweatiness, weakness, numbness, or seizures, it can very well be a diabetic emergency. Make sure you understand the individual’s diabetic protocol before going on extended adventures away from civilization. You may wish to add oral glucose gel, or honey packets, to your first aid kit in case of dangerously low blood sugar.

### **Dehydration**

Nausea, vomiting, excessive sweating, diarrhea, bleeding, and burns can all decrease the amount of water in your cells. If a person loses enough fluid, it impairs the function of all body systems. Some of the conditions causing dehydration may be emergencies themselves. Prevent dehydrations by reducing activity, finding shade, drinking water, and consuming electrolytes (like Gatorade or electrolyte powders).

### **Allergic reactions**

Individuals can be allergic to bee/wasp stings, nuts, dairy, cats, pollen, shellfish, and more. Know all of the allergies of every participant. Keep documentation stating their allergies and any medications they have for those allergies. If someone is stung by a bee, ask them if they have ever been stung before. If not, keep a close eye on them. If they have only been stung once before, also keep an eye on them. Prepare for emergency procedures if the individual has adverse reactions like hives, itching, swelling, chest pain, difficulty breathing, or dizziness. Remember that epi-pens will enhance the speed and effectiveness of antihistamines initially, but the pens may not completely stop the allergic reaction. Once the epi-pen has been administered, evacuate the individual and seek emergency medical attention.

### **Stomach or abdominal pain**

Kids complain of “tummy aches” quite often. While usually not life threatening, some stomachaches cause severe pain. Some stomachaches may be the result of emergencies like appendicitis, giardia, urinary tract infections, and an assortment of other ailments. Most often, tummy aches are the result of changes in diet, poor hygiene, dirty dishes, or contaminated water. Err on the side of caution, and seek help if the ache causes too much distress or concern or lasts a long time.

**Asthma**

This disease can constrict air passages in the lungs. As a result, individuals experience trouble breathing. In extreme cases, asthma attacks cause death. Some people have very infrequent attacks while others are highly sensitive and require daily medications to control their asthma. Know the condition of participants' asthma and their medication, and ensure that they are using their medication appropriately.

**Heat exhaustion or heat stroke**

From heat cramps to heat stroke, the summer heat can take its toll on anyone exposed to too much heat. Prevent over-exertion, promote hydration, and encourage electrolytes like potassium and salt. Watch out for individuals who seem to be overly hot, dehydrated, or malnourished. Move heat-affected individuals to the shade and watch for cramping, headaches, dizziness, weakness, or nausea. Consider the situation an emergency if anyone faints, has a seizure, or experiences extreme symptoms.

**Cardiac emergencies**

Most chest discomfort in the backcountry results from trauma, muscle strains, or gastrointestinal problems like heartburn. Chest pains resulting from heart problems, however, are an emergency. Know the medical history of every individual participating in your outdoor events. If cardiac issues are a known issue, talk to the individual and their parents, and gain advice from their personal healthcare practitioner before going on an outdoor excursion.

## First-Aid Kits

Knowing what to bring is as important as knowing what to do. You can buy a preassembled medical kit from any outdoor retailer. We recommend, however, building your own, making sure you understand the uses for each item before you add it to your kit. A do-it-yourself approach allows you to easily adjust what you pack based on the location, the number of participants, the duration of the trip, and how much weight you wish to carry.

For basic outdoor activities like cookouts and backyard campouts, the most basic first aid kit should suffice. The most basic kit should include:

- Antiseptic wipes
- Antibacterial ointment
- Assorted adhesive bandages
- Butterfly bandages/adhesive wound-closure strips
- Rolled sterile gauze
- Sterile Gauze pads (various sizes)
- Nonstick sterile pads
- Medical adhesive tape (10-yd. roll, min. 1" width)
- Blister treatment (e.g., Moleskin, 2nd Skin)
- Ibuprofen/other pain-relief medication
- Insect-sting relief treatment
- Antihistamine to treat allergic reactions
- Fine-point tweezers
- Safety pins
- First-aid manual or information cards

The exact contents of a first aid kit will depend on the location, activity, duration, number of people and their levels of training, among other factors. Bring multiple kits for longer excursions and adventures with a big group. Coordinate the group's first aid kits to decrease weight and increase function.

First aid kits must be versatile and lightweight and must contain items you know how to use. Having a well-stocked kit is good, but you must have skills to use the items. Do not try to learn how to use something under duress. Review your First Aid & CPR certification at home as you review your kits' contents. Go through your kits frequently to restock and refresh. Dispose of expired items. Consult a physician regarding the use of any medication you plan to administer.

A more extensive first aid kit may include:

- 1 - Tweezers
- 1 - CPR Microshield
- 4 - Non-Latex Exam Gloves
- 1 - Triangular Bandage
- 1 - 12ml Irrigation Syringe
- 1 - 3" Elastic (Ace) Bandage
- 1 - 3" Sterile Gauze Roll
- 2 - Cotton Tip Applicators
- 1 - Moleskin Pad
- 1 - Non-adherent (Telfa) dressing
- 2 - Tincture of Benzoin Ampules
- 3 - Triple Antibiotic Ointment Individual Packets
- 2 - Benzalkonium Antiseptic Towelettes
- 1 - SAM splint (optional but recommended)
- 2 - Iodine Swabs (do not use with individuals allergic to shellfish)
- 2 - Alcohol Pads
- 3 - Ibuprofen Packets
- 3 - Non-aspirin Packets
- 3 - Antihistamine Packets
- 3 - Antacid Packets
- 5 - 1"x3" Elastic Strips
- 5 - 3/4"x3" Elastic Strips
- 3 - Fingertip Bandages
- 3 - Knuckle Bandages
- 1 - Steri Strip Package
- 1 - Blist-O-Ban
- 1 - 5"x9" Trauma Dressing
- 2 - 4"x4" Gauze Pads
- 1 - 2nd Skin Package
- 1 - Roll Cloth Tape