



# Camping Skills I

Recreation - General Conference Skill Level 1 – Created in 1986

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## 1. Be at least in the 5th grade.

Camping Skills I have been designed so that it is within the capabilities of Pathfinders who are in the 5th grade or higher.



## 2. Understand and practice wilderness and camping etiquette, regarding preservation of the outdoors.

Be considerate of other campers. When purchasing tents, buy ones in muted colors that will blend in with the environment. Blues, greens, and browns are preferred to reds and oranges. People go camping to escape the garishness of the city—leave that behind.

Also be mindful of the noise level made in your camp. Don't be a nuisance. If camping in the wilderness, be sure to make your camp out of sight of the trail. Most National Forests have guidelines for where you can camp in relation to the trail. Find out what those guidelines are and follow them.

Do not enter anyone else's camp site without their permission, especially when traveling to or from your campsite to other places on the campground. It is very rude to cut through another camp. Use the road or trail, even if it will take longer.

Leave the area cleaner than you found it. If you are leading a group of youngsters on a campout, have a contest before you pile back in your cars to go home: see who can collect the most litter (define "most" first though - it can mean by volume, by weight, or by item count). Offer a prize to the one who collects the most (such as getting to choose which seat he or she will sit in on the trip home).

## 3. Know eight things to do when lost.

The best advice about being lost, is - DON'T! And the best way to keep from getting lost is to stay on the path.

If you suddenly realize that you do not know where you are, then here are some things to do:

- Don't panic. You can't think clearly when you panic, so take a deep breath and relax.
- Pray. You may not know where you are, but God does, so talk to Him.
- Stay where you are. It is a lot easier for someone to find you if you stay put.
- Listen for the sounds of other campers, traffic, waterfalls, rivers, airplanes or anything that might help you find your way back.
- Look around - maybe you'll recognize something that can guide you back to civilization.
- If you have a whistle, blow on it. If you don't have a whistle, yell loudly. Someone in your party might hear you. Repeat this every 15 minutes or so and be sure to listen after each sounding. (three of anything is universally recognized as a call for help, so three whistle blasts, or three shouts)
- If you have a map and compass, try to locate your position by looking for hills valleys or streams.
- You can try to relocate the trail, but you do not want to get any further away from your last known location. Mark your location with something - a backpack, hat, or a large rock - but make sure it's something unmistakable. Then venture 10 meters out, and circle your marker, all the while looking about to see if you recognize the trail or a landmark, and always keeping your marker in view. If you do not see anything you recognize, widen the circle by another 10 meters and repeat. Continue circling your marker at ever wider intervals, but stop when continuing would cause you to lose sight of the marker.



- Climb a tree or hillside. A higher vantage point might reveal a landmark you missed from a lower elevation.
- If it's an hour or less until sunset, prepare to spend a comfortable evening. Make a shelter, and light a fire. Things will look better in the morning, and your fire may attract a rescuer.

## 4. Be familiar with various types of sleeping equipment suitable to location and season.

### Sleeping bags

#### Rectangular

The rectangular sleeping bag is probably the most common and are popular for light use. They are not suitable for backpacking because they provide the least amount of warmth and the most amount of weight. As the name implies, they are rectangle-shaped. While this makes them comfortable and roomy, the wide opening near the top is a major source of heat loss.

#### Mummy Bag

The mummy bag is shaped like a sarcophagus. It is narrow at the feet (but tall there to allow just enough room for the feet), tapers at the waist, widens again at the shoulders, and then tapers down near the head. The top is very much like the hood of a winter coat, complete with drawstrings to close up the gap and keep heat in. Because they conform so well to the human shape, there is very little wasted space inside. This is good because your body has to heat all that space, and because the extra insulation and material thusly removed does not have to be carried (meaning it's lighter).

#### Barrel Bag

The barrel bag is a modified mummy bag. It is roomier than the mummy bag and provides almost the same warmth at the cost of additional weight.

### Sleeping Pads

Sleeping pads can perform two main functions:

- Provide cushioning
- Provide insulation between the sleeper and the ground.

#### Air mattresses

Air mattresses are inflatable cushions that can provide a lot of comfort when it comes to sleeping on the ground. Unfortunately, they are not very warm as they provide next to no insulation beneath the sleeper. This may not be an issue, though it is well worth knowing.

#### Open-cell foam pads



Open-cell foam is a type of foam padding that is sometimes found in furniture cushions or even in regular mattresses. It is lightweight - though somewhat bulky. Its chief disadvantage is that it soaks up water like a sponge.

Closed-cell foam pads

Closed-cell foam makes the ideal sleeping pad. The closed cells do not soak up water. They are lightweight, comfortable, and compact. Often they are only half an inch (12 mm) thick, so they can be rolled into a small tube and strapped to a backpack. They also serve as an excellent thermal barrier between the sleeper and the ground.

## 5. List personal items needed for a weekend campout.

Warm Weather Clothing

Keep in mind that the weather can change suddenly though. Just because it is warm when you begin your outing does not mean it will be warm the whole time. If there is a chance that the weather will turn cold, take along some cold weather gear as well. Check an almanac to see how cold it can get during the time you are planning to be out.

Here is a list of clothing appropriate for a warm-weather outing.

- Thick socks
- Jeans
- Light Shirt (short sleeve)
- Light Shirt (long sleeve)
- Hat with a wide brim
- Boots

Cold Weather Clothing Remember to dress in layers. This will allow you to control your temperature better. In cold weather, you do not want to sweat, because that will soak your clothing and chill you. If you find yourself working up a sweat, remove a layer of clothing, or open a zipper. Rely on wool rather than on cotton, because wool stays warm even when wet. There is a popular saying among experienced outdoorsmen that "Cotton kills." This is because when cotton gets wet, it steals the body's heat which can lead to hypothermia and death. Your outer layer should be wind-proof, as this greatly increases the warmth of your clothing. Here is a list:

- Thermal Underwear
- Light shirts (polyester or some other synthetic)
- Heavy Shirts
- Wool Sweater
- Wind Breaker
- Fleece Pants (synthetic)
- Nylon Pants (as the outside layer) or snow pants
- Overcoat
- Wool Socks
- Boots



- Warm Hat
- Sleepwear For comfortable sleeping and for modesty on overnight trips, bring pajamas or a sweat suit. In many places where it is warm during the day it gets cold at night, so be prepared.
- Personal Gear
- Sleeping bag
- Foam ground pad or air mattress
- Flashlight
- Pocket knife
- Quarter roll of toilet paper
- Coins (for campground showers)
- Bible
- Camera
- Notepad and pencil
- Toiletries (Toothbrush, toothpaste, shampoo, etc.)

## 6. Plan and participate in a weekend camping trip.

There are a lot of aspects to planning a camping trip, including selection of a campground, choosing the dates, the menu, equipment, and solving the problems of getting there. Get your whole group involved in as much of the decision-making as possible. Where do they want to camp? When can you go? What will you eat? Who will go? How many tents will you need? Who will sleep in which tents? Is all the gear in a good state of repair?

When all these decisions are made, someone needs to go out and buy the food, repair, replace, or buy any gear that's needed, et cetera. Every camper under the age of 18 should also have a signed permission slip and an up-to-date medical release form. The forms should be photocopied (reduce them if necessary and use two-sided copies - that way you can have four forms per sheet of paper) and every staff member should carry them at all times.

On the day of the campout, everyone should meet to load the equipment, and finally, you are ready to go. When you get back, everyone should help unload the equipment. Some should be taken home and cleaned, and if the tents and tarps were even slightly damp, they will need to be pitched again and allowed to dry *completely*. Then they will need to be put away.

## 7. Know how to properly pitch and strike a tent. Observe fire precautions when tent is in use.

The details vary for every type of tent there is, so we provide only general tips here. First, carefully read the instructions that came with your tent. If it's a new tent, keep the instructions. You might be surprised how easy it is to forget which pole goes where.

First, unpack the tent and spread it on the ground. Some people like to put the ground cloth under the tent, and others like to put it inside. If you're going to put it beneath the tent, spread it out first. Before



doing anything else, lie down on the ground cloth and test each sleeping area. If you feel a lump get rid of it now.

Then lay out the tent's canopy (that is, the cloth part that is not the fly). Find the door and orient it where you want it. Then stake it down. This will prevent the wind from blowing it away while you are trying to raise it. Slide the poles into the tubes, but do not raise the tent until the main poles (usually two of them) are all in place. Then raise them together. There are usually aluminum "hooks" located at the stake-down straps and shaped somewhat like a question mark. They are usually a couple of inches long, and are there to slip the pole ends over. Once all the pole are in place, throw the fly over the tent, being careful that the up side is up and the front side is to the front.

Flies often have elastic ropes that attach to plastic clips near the pole anchors, and they also generally have a rope at the four major corners. These should be anchored such that the fly is held off the tent's canopy, usually by staking them down or tying them to a tree. In the "olden days" a taut line hitch would be used to tighten these ropes, but these days the ropes are fitted with a three-hole plastic strap. The end of the rope passes through the bottom-most hole and is tied off with a stopper knot. From there, the rope goes to the anchor (tree, stake, etc), and passes through the middle hole, and then again through the top hole. The plastic strap can then be slid up and down the rope to adjust the tension. Do not over-tension these ropes - they should have some give so that the tent can move a little with the wind. If they are too tight, the wind will rip the stakes from the ground or topple the tent.

If possible, do not strike the tent until it has dried. If you can, wait until the morning dew has evaporated. This is, of course, not always possible - it could be pouring rain when it's time to go, so you'll have to strike a wet tent. If your tent is wet when you strike it, you will need to set it up to let it dry as soon as you get back. Do not store a wet tent. It will be quickly ruined with mold and mildew.

To strike the tent first inspect the inside, being sure that everything has been removed. Check the loops in the ceiling (coat hangers tend to hide there) and the "stuff" bags on the walls (glasses and keys tend to hide there). Then sweep the tent. Once everything has been removed, pull off the fly, and stow it inside the tent (spread it out as flat as you can). If you stand next to the tent's door, you can pull the fly off the canopy and stuff it directly inside without it ever hitting the outside ground (and thus picking up dirt, leaves, and moisture). Stowing the fly inside also avoids the sad problem of cramming the canopy and poles into the tent's duffel, and then noticing the that the fly still needs to get crammed in there too. It's one less thing to roll up.

Then let down the poles. Carefully remove the poles from the canopy and fold them up. If the tent poles are sectional tubes with a long piece of elastic running through them all, it is better to push the poles out of the canopy rather than trying to pull them through. Pulling on them merely separates the sections and may break the elastic. Broken elastic will have to be repaired before the tent can be pitched again, because the elastic actually holds the poles together.

Once the poles have been stowed, remove the stakes and carefully fold the tent. Put everything back into the bag it came in.

Keep any fire at least 20 feet (6 meters) from the tents. Sparks sometimes fly out of a fire or are projected into the air (such as when an inexperienced camper throws dry leaves into it). If these sparks land on your tent, at best they will burn a little pinhole in it, but at worst can cause a deadly tragedy.



Never light a fire of any kind inside a tent, be it a candle, lantern, or a stove unless you *know for a fact* that the tent has been designed for that purpose.

## 8. Know and practice the proper principles for camp sanitation for both primitive and established campsites.

If camping at a facility that has toilets, use them. If camping in the wilderness, you will have to either build a latrine or use cat holes. Do "your business" at least 200 feet away from any source of water (such as a spring, river, or lake), and at least 100 feet away from your camp. Dig a shallow hole three to four inches deep (7-10 cm) and go there. Then bury it (and any toilet paper). At this depth, there are a lot of bacteria in the soil to quickly compost your waste. Digging deeper will make it take longer.

Just because you are camping does not mean you are at liberty to skip personal hygiene. Wash your hands before you eat and after you answer "nature's call." Brush your teeth before you go to bed and after breakfast. Wash your face and clean your fingernails.

Keep your kitchen clean too, and wash your dishes as soon as you finish eating. Dishes should be washed with potable water.

## 9. Properly use the knife and hatchet. Know ten safety rules for their use.

### Knife Safety

- Keep your blades sharp. A dull knife is difficult to push through wood, requiring additional force. When the wood finally gives, the blade keeps going.
- Always push the blade away from you, and constantly consider where the blade will go.
- Keep your fingers clear of the blade at all times.
- When splitting wood with a knife, do not hammer on the back of the blade. This weakens the attachment to the handle and deforms the blade.
- Close a pocket knife when it's not in use or when you are carrying it.
- Keep all blades away from heat. Heat will remove the temper, softening the blade. A soft blade will not hold an edge, making it nearly impossible to keep it sharp.

### Hatchet Safety

- Before chopping any wood, take a gentle practice swing to check that the axe will not catch on anything (such as an overhead branch).
- Consider what will happen if you miss whatever you are chopping at - will you accidentally hit a finger? A foot? A bystander? Leave plenty of margin for error.
- Make sure the axe head is firmly attached to the axe handle. If it is loose, you may tighten it by wetting the handle, by driving a hardwood wedge into the handle through the eye of the blade, or by rapping the axe handle vertically on a hard surface.
- Keep bystanders away by one arms length plus two axe-lengths.



- When handing someone an axe, present the handle to them rather than the blade.
- Walk with the blade facing away from you.
- Sheathe the axe when it is not in use.
- Always maintain firm footing when using or carrying an axe.
- Stop when you are tired and rest. Tired people are more prone to accidents and mistakes.

## 10. Fires:

a. Demonstrate ability to choose and prepare a fire site.

Do not build a fire within 6 meters  of a tent. Sparks from the fire can easily travel that far and strike a tent, either burning a hole in it, or setting it ablaze. If it is occupied, this can be deadly. A fire should likewise not be built underneath trees as it is possible to ignite the tree's canopy. Stay clear of vehicles as well.

There are many ways to prepare an area where you will build your campfire. If you are in an established camping area, look for a place where a fire has already been built. Do not start a fire in a new area if there are fire pits already available. If you must build a fire in a new area, dig out any sod first, and lay it aside. Keep it in the shade (perhaps beneath a vehicle) and water it every day so it does not dry out (perhaps with your rinse water). You will replace it before you leave. If there is no sod, clear out all the duff and debris so that only inorganic material is in the fire ring. Clear an area double the diameter of the intended fire. Then place stones inside this ring, building a small wall as it were. Try to fit the stones so that there are no gaps, or only small gaps. The stone ring should be six to eight inches high, and it should go all the way around the circle. Before you lay the fire, make sure you have a means to extinguish it nearby and ready to go. This could be a fire extinguisher, a bucket of sand, or a bucket of water. Means of extinguishing the fire should be on hand *before* the fire is lit. The fire ring should then be ready for a fire.

b. Know fire safety precautions.

- Locate the fire in a safe place. It should be clear for 10 feet (3 meters) all around.
- Do not light a fire beneath overhanging branches.
- Do not use accelerants, such as lighter fluid, gasoline, kerosene, etc. Learn to light a fire without these.
- Put the fire out completely before leaving it. If it's too hot to put your hands in the ashes, it's not sufficiently out. Douse it down with water, turn the coals with a shovel, and be sure to extinguish every coal and ember.
- Do not build a fire on top of flammable material such as grass or leaves.
- Cut away the sod (keep it moist so it stays alive, and replace it before your leave), and clear away the duff and litter.
- Keep fire extinguishing supplies handy and near the fire. A bucket of water or sand, or a fire extinguisher are recommended.
- Do not remove burning sticks from a fire.
- Watch for embers that escape the fire pit and extinguish them immediately.
- Wear proper footwear around a fire.



- Be aware that paper, cardboard, and leaves create floating embers that rise out of the fire pit and may land dozens of yards away.
- Do not light a fire when conditions are adverse (high winds, or drought conditions).

c. Know how to properly strike a match.

Three things are needed for a fire to start: oxygen, fuel, and heat. The match head is a fuel that can be ignited at about 360°F (182°C), which can be obtained through friction. The oxygen is supplied by the air. To strike a match, quickly and firmly drag the match head along the striker pad on the side of the box or outside of the package. Keep your fingers away from the match head. Once the head ignites, the temperature will increase sharply and ignite the match stick. Fire prefers to climb uphill, and you can control the size of the flame to a certain extent by tilting the head down (for a bigger flame) or up (for a smaller flame). Carefully shield the flame from wind (which lowers the temperature) by cupping your other hand around the flame and move it to the tinder you wish to light.

d. Practice building a fire with the use of one match, using only natural materials.

There are three factors that govern a fire:

- Oxygen
- Fuel
- Heat

You need all three to get a fire going, and the way you lay the fire will determine how much of each of these are available. To get a fire going, you will need to ignite some tinder. The tinder will need to burn long enough to ignite kindling, and the kindling will need to burn long enough to ignite the fuel. Before lighting a match, it is important to have all three types of fuel available.

Start by laying your tinder in the center of your fire ring. Tinder consists of small, easily ignited material, such as pine needles, shreds of birch bark, thin twigs (whose diameter is about the same as a pencil lead), or even dryer lint. Once the tinder is on place, lay some larger pieces over it (this is the kindling). Kindling is wood whose diameter ranges from pencil thickness to 4 cm . It should be arranged with the smallest-diameter pieces nearest to the tinder.

An effective method of doing this is to get two small fuel logs - about 3" in diameter and lay them parallel to one another and 15-20 cm  apart, with the tinder in between. Then lay a small, straight stick across them and over the tinder. Call this stick the "ridge pole". Next lay more pencil-sized sticks with one end on the ridge pole and the other end on the ground. Lay them alternately on both sides of the ridge pole as if you were framing a roof. These can be called the "rafters". Once this is done and the rafters make a "roof" that spans the distance between the two logs and covers the tinder, lay two more ridge poles, one on either side of the first ridge pole, and then lay more rafters from them to the ground (but leave a little space between the rafters). You can repeat this a third time if you like, but it's important to leave a gap somewhere so you can get a match inside to light the tinder. The sticks in each layer of rafters should be a little larger than the ones that came before.

*Do not light this pile* until you have gathered sufficient fuel for the fire! Fuel consists of wood that is greater than 7 cm  in diameter. The tender pile described above will burn for about five minutes or so,



and that does not leave much time for you to scrounge around looking for something to pile onto the flames. Therefore, you should have your fuel ready to go.

Once the tinder is lit, you can use the fuel to lay a hunter's fire, teepee, a log cabin or a council fire on top of the first two logs. It works well, because there is a great deal of kindling stacked close together, but not so close as to reduce oxygen flow. The kindling is also laid close to the tinder so the tinder has no trouble igniting it (assuming it is dry and pencil-sized).

e. Demonstrate how to protect firewood in wet weather.

Obviously, you will want to keep your firewood dry, and there are many ways to do that. One effective method is to put a tarp on the ground, stack the wood on top of it, and fold the tarp over the top. Place one or two heavier logs on top to hold the tarp down. Those logs will get wet, but they will prevent the wind from blowing the tarp off and soaking the rest of your wood. Having a tarp beneath the wood will keep water from running under the stack and soaking the bottom logs, but this is not entirely necessary.

You can also keep firewood in an enclosed trailer, or the trunk of a car if those are available to you. Another option is to keep it under a kitchen tent or canopy.

## 11. Bake bread on a stick.

First you will need a bed of coals. If you attempt to bake your bread over a flame, it will be burned on the outside and raw on the inside. Make the bread dough or bring a frozen tube of pre-made dough. Get a straight stick three or four feet long (1 to 1.3 m) and clean the end of it off. You can do this by removing the bark or by washing it in clean water. Wrap the dough in a thin layer around the stick, spiraling it as you go. The dough should cover the top four to six inches of the stick. Once the dough is secured to the stick, jam the other end of the stick into the ground or support it with rocks or large pieces of firewood, so that the bread is held over the coals. The bread dough should be held at a distance from the flame where it is uncomfortably hot to hold your hand. Turn the stick every couple of minutes until the outside is golden brown (this is why you need a *straight* stick). You can eat the bread right off the stick. This is an excellent early morning activity while everyone is getting warm up around the fire. It works equally well at night.

## 12. Describe the proper procedures for washing and keeping clean the cooking and eating utensils.

Make up a mess kit for each camper, consisting of a plate, cup, bowl, knife, fork, and spoon. Store each kit in a mesh hosiery bag. Every mess kit should have a number, and every item in the kit should be labeled with that number. Every camper should be assigned a number. After the meal, each camper will wash his or her own mess kit. If a dirty plate is found abandoned on a picnic table, a quick check for its number will reveal who is responsible for that item.

Use two large tubs for washing the dishes (or optionally, three tubs). One will be filled with soapy water (heated if possible), and the other will have rinse water with one teaspoon of bleach per gallon. The third optional tub is filled with water and is used for pre-rinsing the dishes before they are washed in the soapy water. If the third tub is not used, campers will wipe their dishes clean with a paper towel *before* placing



them in the soapy water. This will prevent the wash water from becoming ultra-disgusting. Each dish should be washed, rinsed, and returned to its mesh bag for drying. The mesh bags will then be hung from a clothesline. If the clothespins used to hold them to the line are also numbered, it is a lot easier for each camper to find his or her own kit if they are hung in numeric order.

Whoever is on kitchen duty for that meal (and *everyone* should be assigned at least once) is responsible for washing the cooking gear. Again, they should wipe the pots, pans, and utensils as clean as possible *before* subjecting the wash water to them. They will need to be dried after rinsing and then put away. The kitchen crew should then take steps to properly dispose of the trash, lest the camp attract critters. Critters may be cute, but they sure do make big messes!

### 13. Describe sleeping wear and how to stay warm at night.

A good sleeping bag is essential to staying warm at night. Campers should absolutely not go to bed wearing their dirty day clothes. This will only make the sleeping bag filthy and the camper will not be as comfortable. Wear thermal underwear, pajamas, and/or a sweat suit. Layering will keep you warmer, but if you toss and turn a lot, they may twist around and become uncomfortable.

### 14. Draw a spiritual object lesson from nature on your camping trip.

There are many possibilities for meeting this requirement. Jesus used nature to illustrate object lessons on many occasions:

Birds

*Are not two sparrows sold for a penny? Yet not one of them will fall to the ground apart from the will of your Father.* Matthew 10:29 - NIV

Flowers

*And why are you worried about clothing? Observe how the lilies of the field grow; they do not toil nor do they spin, yet I say to you that not even (AL)Solomon in all his glory clothed himself like one of these.* Matthew 6:28,29 - NIV

Water

Jesus meets the Samaritan woman at Jacob's well, John 4:7-38

### 15. Explain and practice the motto: "Take only pictures and leave only footprints."

"Take nothing but pictures, leave nothing but footprints" is pretty self-explanatory. It means you do not disturb nature while you are out enjoying it. If you see a pretty rock, leave it there for someone else to enjoy. If you eat a piece of candy on the trail, don't toss the wrapper — take it with you.



There are a few exceptions to both these rules. If you see trash, by all means, take it. Throw it in the trash when you get to a proper trash receptacle. Also be aware that footprints are not always harmless. Many tundra plants that take years to grow can be destroyed by a single footprint. Stay on the trail.

One of the most important ways people leave their mark on the land is by building a campfire. For "no trace" camping, bring a camp stove. Unfortunately, the campfire is one of the primary attractions for many people, so it is not easy to follow this advice. If your campsite has a fire ring or an existing fire pit, use that. If it does not and you *must* have a campfire, lay a small tarp on the ground and cover it with six to eight inches of mineral sand. Mineral sand is sand containing no organic material, and can be found on a beach or where a large tree has fallen over and raised a root wad. The sand must be piled deep so the heat does not affect the tarp beneath. Stop putting new fuel on the fire well before you are ready to put it out, and push in the ends of sticks that have not yet burned. Allow them to burn down to white ash. When you are ready to leave, douse the fire well, and spread the ashes over a wide area. Return the sand to the place where you found it and pack up your tarp.