

# Troop 174

## Boy Scouts of America



### Parents/Scout's Equipment Guide to Camping & Backpacking

# Gear

## What Should I Buy?

Troop 174 will supply all of the cooking gear needed for a regular monthly campout. This includes the stoves, pots and pans. The exceptions to this are eating utensils and food. For those, all he will need is a plastic, coffee-style mug, plastic bowl, and a spoon. Please do not send plastic disposable spoons, as they break easily.

**The Boy Scout “Fieldbook” is an invaluable tool for learning the skills necessary for camping and backpacking. It is strongly recommended that you purchase a copy for your scout.**

With the exception of the when we do special trips, the boys normally pack all of their gear into a backpack. The Scout should be the one who packs it, as he will be the one who has to repack it on Sunday to come home. He will also be the one who knows what clothes he wishes he had (as well as had not) brought. With experience, your Scout will learn the best use for the clothes he brings and how an item can serve multiple purposes. For example, rain pants may double as a 2nd set of pants or the rain jacket as an extra sweatshirt.

The sleeping bag will be the most expensive, and probably the most important thing you will buy for a new Scout. One way to really ruin a good weekend is to climb into a sleeping bag on a cool night, and not be able to get warm. See the next section about suggestions for buying a sleeping bag. Since most kids do not have a sleeping bag for each season, it is recommended that Scouts get a bag for winter and then sleep with the bag open, or just covering them in the summer. It is easier to work with a winter bag in the summer, than it is for a summer bag in the winter. A full-length foam ground pad will also help keep your Scout warm during those winter months. When he is backpacking, they also come in handy when the campsites are rocky and a soft spot is hard to find.

Boots are one thing that Scouts may want more than one kind. For the regular monthly campouts, hiking boots are fine. They should not fit too snugly and the boys should be able to wear thick hiking socks with them. In the winter time, they need a rubberized boot that will keep their feet dry. It is suggested the boys not get the “hiking” shoe style but instead get something that comes up to mid-calf (like the traditional snow boots). Many of them come with fleece or felt liners that will also help keep the feet warm during the day. At night, they can remove the liners and keep their feet warmer in the sleeping bag. Leather hiking boots are not well suited for winter camping as they freeze, are hard to get on in the morning, and do not keep the kids feet warm.

Before you spend a lot of money on high-tech equipment and gear, remember your son will be growing very quickly over the next few years. You may be replacing that equipment on a regular basis! However, do not be afraid to pick up some synthetic underwear, wool socks, wool shirts or sweaters. But hold off on buying that backpack until you see if it is something he enjoys. You can usually find someplace to borrow one from, even if it is another Scout who will not be going that month.

## Buying a Sleeping Bag

On a cool evening in an unfamiliar place, there is nothing like a good sleeping bag. Slip inside one and the cares, worries, and the pain of the day slips away. Within minutes, shivers are replaced by a warm glow and a weary camper should be ready for a good night's sleep.

Here are some tips to help you make a smart choice when selecting a sleeping bag for your Scout:

- Keep in mind that the bag your son takes on a regular monthly campout may be too heavy and bulky for him to take on a backpack trip.
- Match the bag's comfort rating with the coldest nighttime temperatures he expects to encounter — and maybe even add a few degrees just to make sure. Do not expect the same bag he uses in the summer to keep him warm at Polar Bear.
- Bags using “down” insulation are lighter than bags using synthetic materials. They also compress into smaller shapes and last longer.
- Synthetic-fill bags can provide some insulation, even when wet, and they dry out fairly quickly. For the same temperature rating, they usually cost less.
- A bag's shape does matter. Mummy-style bags insulate most effectively and are the best choice for colder or high elevation conditions. Rectangular bags give the most room to change sleeping positions, but offer more space the body must heat up.
- A good sleeping pad is essential. Body weight compresses a bag's insulation when your son lies on it, so he will need a reliable buffer between him, the bag, and the ground.

Sleeping bags keep campers warm by trapping and holding a layer of air next to the body. This air, which is warmed by body heat, forms a barrier between the camper and colder air or cold surfaces. A sleeping bag's temperature or “comfort” rating identifies the most extreme temperature the bag is designed to accommodate. When you hear a bag described as a “+20 bag”, it suggests that most users should remain comfortable if the air temperature drops no lower than 20 degrees F. Each manufacturer assigns a rating on their bags based on its own research.

- Many factors affect a person's ability to keep warm inside a sleeping bag:
- The insulating pad beneath the sleeping bag.
- The presence or absence of a tent (the tent traps an extra layer of dead air, warming by up to 10 degrees).
- Each person's metabolism; some might be “cold” sleepers who prefer extra covers at night or “warm” sleepers who kick off the covers.
- Clothing worn while inside the bag (dry long underwear and clean socks are great choices on cold nights; plus they keep body oils off the bag). A cap and turtleneck also help keep the body heat from radiating away; while fleece pants and jackets help on colder-than-expected evenings.
- Adjustments made while in the bag (keep the bag zippered up and the hood cinched on cold nights; be careful to not breathe into the bag, since moisture has a negative effect on the insulation).
- Food in the stomach (the process of digestion helps produce warmth).
- Hydration (if campers are not well hydrated the food will not help much).

To be ready for those extra chilly nights, select a bag with a temperature rating that slightly exceeds the low end of the temperature range expected to be encountered. If a +20 degrees F bag sounds right for him, a +10 degrees bag would probably work well also. On warm nights, he can always vent the bag (by using the double zipper to open the area near his legs) or simply drape it over himself, unzipped. It never hurts to be a little over-prepared!

Recognizing that comfort ratings are merely general guides (these temperatures reflect the coldest temperatures the bag is rated for), sleeping bags are organized in the following categories:

- Summer Season +35 degrees and higher
- 3-season bag +10 degrees to +35 degrees
- Cold Weather -10 degrees to + 10 degrees
- Winter / Extreme -10 degrees and lower

## **Buying a Backpack**

Beginning backpackers who are shopping for their first pack must choose between two styles of backpacks: the internal and external frame pack.

Internal frame packs have the aluminum or plastic frame support inserted inside the pack. The advantage of these packs is that they lay flush against the back using a large padded contour shell. The pack basically wraps around your back so that the weight in the pack is transferred over a larger surface area. The padded shell and the fact the weight is distributed better usually makes these packs more comfortable to wear. Most internal frame packs have a large center pocket where the bulk of the gear is carried; along with a lower compartment for a sleeping bag. The pack contents have a better chance of staying dry since they are carried inside the pack. These packs usually provide more flexibility and agility on rocky trails, steep slopes, or when crossing a swift-moving stream. The pack also provides several zippered pouches on the outside of the pack to carry things that might be needed during the day so that it is not necessary to empty the entire pack. Because internal frame packs move with the body and allow the weight to be packed lower on the back, they are excellent for activities where balance is important.

There are a several benefits to using an external frame backpack. One is that they tend to be lighter than internal frame packs because they have less padding for the back. Another advantage to an external frame pack is that they generally can be adjusted to fit the carrier, allowing your hiker to “grow” into the pack. Many backpackers will also agree that despite being more awkward to carry than internal frame packs, the external frame carries a heavier load better along smooth trails. The external frame has lots of zippered pouches and straps to carry essentials needed during the day. It is easy to lash extra items to the frame, and capacities can be increased dramatically. The convenience of being able to unzip the main compartment and get at any piece of gear at any time is nice. Usually, these type of backpacks are less expensive than the internal, more high-tech ones. Many hikers have found this type pack is cooler to carry in hotter weather as the frame holds the pack away from the body and allows moisture to evaporate quicker.

One disadvantage of the internal frame pack is that they can lead to the hiker leaning forward as they walk to counterbalance the lower weight. External frame packs tend to be more unstable in rougher, steeper terrain. This is because the rigidity does not allow the pack to move with the hiker. These packs also tend to be bulkier, which makes them awkward for transporting.

Bigger is not necessarily better. The pack should be big enough to carry what is needed for the hike — but not much more. A bigger pack might be required for longer treks, but for most hikers, a bigger pack merely offers the temptation to take too much stuff. Packs are designed to ride comfortably when they are full, so a half-empty big pack will not ride as comfortably as a full, smaller one. Be wary of packs with too many bells and whistles and straps dangling all over the place. Keep in mind overly complicated packs just have more things that can break at the wrong time!

<b>Pack</b>		<b>Comparison</b>
	<b>External Frame</b>	<b>Internal Frame</b>
<b>Pros</b>	<ul style="list-style-type: none"> <li>high center of gravity makes it easier to walk upright</li> </ul>	<ul style="list-style-type: none"> <li>pack rides low and closer to the body</li> </ul>
	<ul style="list-style-type: none"> <li>air flow between pack and back makes for cooler hiking</li> </ul>	<ul style="list-style-type: none"> <li>allows for more movement and better balance</li> </ul>
	<ul style="list-style-type: none"> <li>generally cheaper than internal frame packs</li> </ul>	<ul style="list-style-type: none"> <li>sleeker profile making it easier to get through tight places</li> </ul>
	<ul style="list-style-type: none"> <li>easier to load and extension bars and space for the sleeping bag outside of the pack make the capacity more versatile</li> </ul>	<ul style="list-style-type: none"> <li>generally more comfortable to wear on longer hikes</li> </ul>
	<ul style="list-style-type: none"> <li>better for carrying heavier loads</li> </ul>	
	<ul style="list-style-type: none"> <li>frame can be used as a litter in an emergency</li> </ul>	
	<ul style="list-style-type: none"> <li>easier to adjust for growing Scout</li> </ul>	
<b>Cons</b>	<ul style="list-style-type: none"> <li>tougher when scrambling</li> </ul>	<ul style="list-style-type: none"> <li>more difficult to load and pack</li> </ul>
	<ul style="list-style-type: none"> <li>little or no flexibility, so the pack may tend to wobble</li> </ul>	<ul style="list-style-type: none"> <li>more expensive</li> </ul>
	<ul style="list-style-type: none"> <li>more bulky when traveling</li> </ul>	<ul style="list-style-type: none"> <li>not as many places to attach equipment on the outside, so capacity is generally fixed</li> </ul>
		<ul style="list-style-type: none"> <li>back perspiration can be a problem</li> </ul>

Source: The NOLS Wilderness Guide

<b>Suggested Pack Volumes</b>	<b>Pack Size (in cubic inches)</b>
Day Hiking	3,000
Backpacking trips (five days or less)	5,000
Backpacking trips (more than five days)	6,000 – 7,000
Backpacking trips (more than a week)	6,000 +

Source: The NOLS Wilderness Guide

## Buying Good Boots

One of the most important, but often most overlooked, piece of gear Scouts need is a pair of good fitting boots. Too often, Scouts come to camp with boots that are too big (leading to blisters), too small (blisters, damaged toes plus cold), steel-toed (cold), not waterproofed (cold and wet), leather (cold) or, even worse, no boots at all.

Given the climate and terrain where Troop 174 camps, every Scout should have a pair of hiking boots as well as a pair of good winter boots. Both pairs should have a waterproof membrane, such as Gore-Tex. Heavy rubber boots (Wellingtons or waders) have no breath ability, will not keep their feet warm, and are not recommended. Winter boots often have a removable liner that adds insulation and warmth. Liners can be kept at the foot of the sleeping bag to keep them warm at night—important for winter camping!

Hiking boots come in a variety of styles based on use, such as groomed trails, rough trails, off trail and mountaineering. Each is designed for different types of backpack loads. Rough trail boots are best for most Scout activities. Boots come in different heights, including low-cut, mid-cut and high-cut. It's important to select a boot that gives ample support for the Scout's pack load, body weight and type of hiking. Mid-cut boots provide more ankle support than low-cut boots, which are more like high-tech running shoes.

When shopping for boots, your son should wear hiking socks he is planning to use at camp to get a better fit. Shop at the end of the day, when his feet are more swollen. Unlace one of the boots, slip in a foot, and move the toes forward. If the boot is the right length, he should be able to slide two fingers between his heel and the back of the boot. Next, have him kick his heel back, snugly lace the boot and stand on an incline to see if his toes touch the front of the boot. Make sure the heel is not swimming around inside the boot or being squeezed too tight. Walk around the shop a few times and try out some stairs if they are any in the area.

The most common cause of blisters is putting tender feet into stiff boots just off the shelf. The trick is to “harden the feet and soften the boots” BEFORE beginning a backpacking or hiking trip. Many experts suggest people put 50 miles on new boots before they get used for hiking or backpacking. The 50-mile rule accomplishes two goals. First, and most important, it ensures that the new boots are broken in and that any foot-related issues are found and taken care of beforehand. Second, by walking 50 miles, muscles are given a chance to prepare for an extended hike. Breaking in new boots does not have to be a chore. Take a few weekend day hikes, wear them mowing the lawn, just around the house, or going to the store.

Whether hiking on a trail, or just walking around at camp, feet and ankles take tremendous pounding. Quality hiking boots will give his feet the support and protection they need. The terrain is often rough and uneven, causing twisted ankles and stress. Keeping feet clean and dry, trimming all toenails straight across, and wearing properly fitting shoes will help make camping a positive experience. Look at it this way. Investing in a good-fitting pair of waterproof hiking boots may cost a bit more than a discount store special, but it'll cost less than just one trip to the doctor for a sprained ankle or a blistered foot! You may want to guard the boot seams against moisture and abrasion by applying a commercial seam-sealer and it is important to make sure to clean the boots after every campout.

## **Buying Good Socks**

Too many people spend a great deal of time choosing just the right boots and then buy whatever socks the store has on hand or is on sale. While buying good boots is essential, socks also perform many useful and important functions. They cushion feet, prevent boots from rubbing, help wick away moisture, and can help keep feet cool in the summer and warm in the winter. Wool is the most accepted material for socks, especially given all of the things we expect our socks to do. As a rule, cotton socks should be avoided whenever possible for several reasons. Cotton socks soak up sweat, take a long time to dry, and tend to bunch up a lot, leading to possible blisters and sore feet.

Whatever type of socks are worn, make sure that they fit well. This is often difficult in the store as most socks are packaged so that no one can try them on. Plus, sock sizes are not the same as shoe sizes, so you will need to pay attention to the size chart on the package. Before buying any socks, there are a couple of things to check for that will help later on. Check for loose threads, knots, or raised stitching on the sock. Flat seams at the toes are recommended; bulky seams will rub and potentially cause blisters.

How many pairs of socks to wear is a matter of personal taste. This most likely will vary depending on the footwear being worn, as well as the time of the year, activity, and weather. One popular approach is to wear a thick outer pair with a pair of thin synthetic ones underneath. The inner pair is used to wick moisture away from the feet to keep them cooler and more comfortable. It is important to remember that it is possible to have too many pairs of socks on. This could potentially reduce circulation in the feet and the result will be cold feet, despite having several pairs of socks on.

## **Pads, Pillows, and Liners**

A sleeping pad of some kind is a great idea, not only for comfort, but also because body heat is lost through contact with the cold ground. The least expensive alternative is a half-inch foam mat that can be rolled up at the end of camp. Therm-A-Rest is by far the most popular air mattress and it is a lot sturdier and less prone to puncture than some of the other models available. Pads come in different lengths: for summer, a three-quarter length pad works great, but he might want a full-length one for colder weather. At home, store the sleeping pad deflated and out of the storage sack to prevent mildew.

Some campers and hikers will bring a light-weight, usually inflatable pillow to camp. Others, more conscious about the extra weight will resort to rolled up sweatshirts, pants, or fleece. A Scout can also put some of his extra clothes into a stuff sack to use as a pillow.

A thin nylon liner can keep a sleeping bag clean and add to its longevity. It is also more comfortable than sleeping against a clammy sleeping bag in cooler weather. In the winter time, a wool blanket can serve as an added layer of insulation at Klondike or on a cold November night.

## **Headlamps and Flashlights**

These lights are for walking and setting up camp in the dark, both of which will come in handy at some point in camp, either setting up camp at night or making a late night dash to the latrine. Hand-held lights are cheaper and lighter than headlamps and there is usually a wider selection to choose from. However, a headlamp is far more useful because it leaves both hands free. Anyone who has ever gagged on a flashlight held in their mouth, while trying to put up a tent or cook, knows why this is important. Small flashlights, like the Mini-Mag are very good for almost any season. There are also a few webbing headbands that can adapt a small flashlight into a headlamp.

Whatever flashlight or headlamp is chosen, it is wise to carry spare batteries and bulbs. Standard tungsten bulbs are fine for general camp use and do not use up batteries quickly. However, with lights that use AA or AAA batteries, the light beam is quite weak and not good for walking at night. Halogen bulbs are much more powerful, but use up batteries much quicker.

When hiking with a flashlight held by a belt loop, the jostling will occasionally turn the flashlight on without anyone knowing it. By the time we get to camp and need the light, the batteries might be weak and of little use. To prevent this while hiking, reverse one of the batteries so that the light cannot be turned on until the battery is switched back.

## **Personal First Aid Kit**

Making a personal first aid kit is easy, fun and less expensive than buying one; plus each person gets to decide what to put into theirs. Be sure he brings it to every camp, hike and other outdoor camping activity.

- Start out with a small bag or pouch, such as a bank teller's zippered bag or an airline travel case. He will want something that is water-proof to keep supplies dry in the event of rain when backpacking or just at a regular monthly campout.
- List with the names and address of people to contact in the event of an emergency. There is the name of one emergency contact on the standard BSA medical form, but this is useful in case we cannot get in contact with that person.
- Six to eight adhesive bandages. Include strip bandages, knuckle bandages and butterfly closures of various sizes.
- Add a couple of 1-in, rolled bandages and a rolled elastic bandage for wrapping wrists and ankles.
- Next put in several sterile gauze pads. The 2" x 2" and 4" x 4" sizes are very versatile. They can be used to clean a wound, as well as a bandage to cover one.
- A small roll of adhesive tape can be used to secure the gauze pads.
- Include a sheet of moleskin to put on hot spots and blisters when hiking.
- SAM splints are lightweight, versatile and reusable. They can be shaped to hold steady almost any injured limb.
- A small hotel-sized bar of soap can be used to wash most cuts and scrapes.
- Supplement it with a small tube of antiseptic or antibiotic ointment.
- Single-use packages of antiseptic and alcohol swabs are great.
- Buy a small pair of scissors to cut gauze, bandages and moleskin.
- Add a pair of tweezers to remove ticks, splinters or stingers.

- Include one or two pairs of latex gloves as protection from body fluids.
- Strike anywhere matches in a waster-proof container.
- Finally, include a pencil and paper to record vital statistics and other notes about the treatment of a victim.
- If your son knows he is allergic to bee stings, an Epi-pen is a must as well. **(Please note that your son must have a valid prescription in order to carry a Epi-pen. Also remember to include this information on all medical forms and permission slips.)**

Most of these items are things normally found around the house. But, when out on the trail backpacking, he will really appreciate them if he has a first-aid kit prepared in advance! Make sure to check the supplies on a regular basis to replace the items he might have used.

## **Ten Essentials You Can't Do Without**

If looking online or in many backpacking books, you will often see a list of “the Ten Essentials”, the top ten pieces of gear and equipment a camper should never leave home without. Here is one version of that list.

**Map and Compass** — getting lost is no fun, and it can be very dangerous. A map and compass are priceless. However, they are useless if no one knows how to use them!

**Extra clothes** - always have him take a little more clothing than he thinks he will need, no matter how long the trip is. At the very least, always take rain gear and a hat and gloves. A fleece jacket is always nice to have. Do not get fooled by the forecast. In order to keep the weight of the backpack to a minimum, do not be afraid to have a rain jacket double as a sweatshirt. Remember the Scout Motto is “Be Prepared” for a reason!

**Water bottle** — a person can go weeks without food, but only a few days without water. Make sure ALL water bottles are full prior to leaving on any backpacking trip as it is never safe to assume there will be water available before you run out. On a longer hike, all water bottles should be checked to make sure they are full before leaving any campsite. At a minimum, each hiker should have 2 1-quart Nalgene water bottles on every hike. One will be used for personal water and the other will be troop water used for cooking. Each of our backpacking crews will have a small filter/purifying pump available and we also take iodine tablets or drops as a backup.

**First Aid Kit** — this might seem obvious, but it often the most overlooked. Each Scout should also have some basic first aid training before going on an extended hike, as a first aid kit is next to useless if the boy does not know how to use what is in it.

**Extra food** — take at least one extra meal on day hikes and at least one extra day's worth of food for 3 to 7 day trips. Hikers never know when they might get stranded due to the weather, injury, getting lost, trip taking longer than expected, etc. The food should require very little or (preferably) no cooking.

**Fire starters and matches** — it seems like you really NEED to start a fire when it is the HARDEST to do so (you are lost, temperatures are dropping, the wind is blowing, it begins raining or snowing). You can get fire starters at any camping store or you can easily make your own at home. Strike anywhere matches in a waster-proof container should be part of each Scout's first aid kit.

**Pocket knife or multi-tool** - a pocket knife has virtually unlimited uses on a backpacking trip. With a knife he can cut or spread food, cut medical or duct tape, cut rope down to size, cut moleskin for blisters, whittle sticks to help get the campfire started or make stakes for his tent, and many more. A multi-tool can be even more effective with all of the options they offer. Both make great gifts for the holidays.

**Flashlight or headlamp** - it is extremely difficult to do anything in the dark without some light. This includes setting up camp, cooking dinner, or just navigating around the campsite. A headlamp has the advantage of allowing hands-free lighting. Be sure to check the batteries and bulb before leaving on any trip. The first night out on the trail is not the time to figure out you needed new batteries.

**Sunglasses and sunscreen** - backpack with a sun burn or blinding headache. Good sunglasses are even more important when traveling on snow, as the snow can reflect lots of harmful UV rays and cause a painful condition called snow-blindness. A hat is also very helpful in keeping the sun off the face and keep from having to squint all day.

**Means for signaling** — if your son ever gets lost or injured on the trail, he will need a way to signal for help. A high-pitched whistle is a great way to signal potential rescuers, and it can be heard a lot more easily than even the most desperate screams. Three short blasts is commonly known as a cry for help. He should also consider carrying a small signaling mirror.

## **Packing the Perfect Backpack**

Once it has been determined what to carry, the next step is to pack it for the trail. Small, frequently used items should go in pants pockets — pocket knife, compass, whistle, bandana, Band-Aids, and maybe a pencil and paper. Equipment not needed until camp can go deep into the pack, but rain gear, the first aid kit, a sweater/fleece, clean socks, and lunch should be easily accessible. Carry the map, water bottle, sun and insect protection, and snacks in the outside pockets, reserving one pocket for the fuel bottle and stove to keep them away from other supplies, especially food. Always try to return each item to a specific pocket in the pack so that it is easier to find the next time you are looking for it. For trail hiking, try to arrange the contents of your pack so that the center of gravity is high and close to the back. This positions the weight over the hips, where it belongs; otherwise, the weight will pull against the shoulders and be uncomfortable to carry for longer distances.

- Whether you have a down sleeping bag or a synthetic one, it should go into a stuff sack lined with a garbage bag or a water-proof stuff sack (to keep it dry).
- Attach the sleeping bag to the bottom of his backpack since it is one of the last items needed during the day.

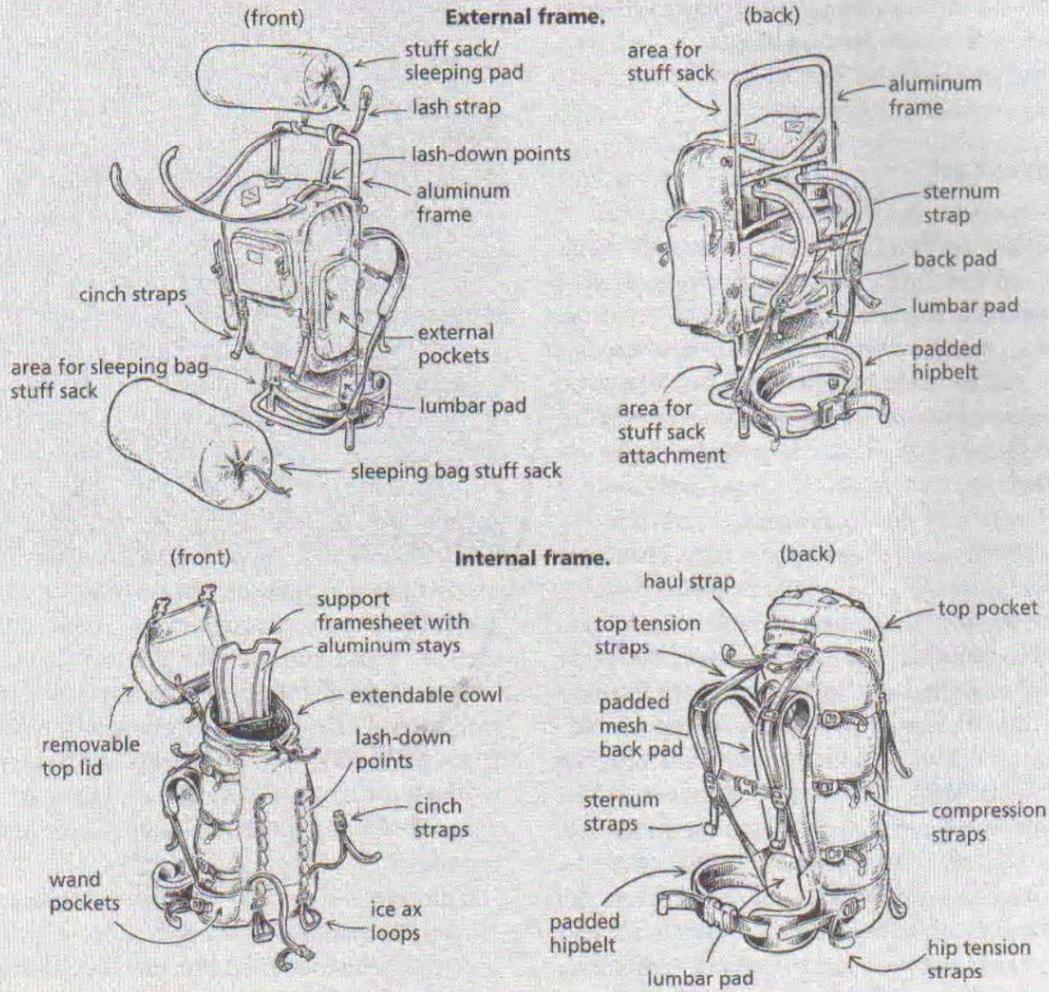
- Heavy and dense items, such as food, should be kept in the middle of the pack and as close to the back as possible. This helps maintain good balance.
- Other items that will be frequently used should also go near the top of each pack: compass, map, snacks, sunscreen, rain gear, warm layer, camera, etc.
- Break down larger items into smaller parts. Repackage all food to leave behind parts that will not be used, keeping in mind that we will be packing out garbage and whatever else we do not use.
- Divide the tent up amongst the people sleeping in it. Attach the tent and ground pad to the top of the pack with bungee cords or rope. Make sure it is secure so that it does not get knocked loose by long-hanging branches.
- Leave no dead space. Fill containers such as cook pots, bowls, and mugs with food or spare clothing. For protection, and to save room, it is a good idea to pack each stove into a cook pot if it will fit. Only adult leaders and adults will carry the fuel bottles and stoves due to BSA regulations.
- Tighten the pack's compression straps to make the load more balanced and compact and to keep things from banging into you while hiking.
- Make sure that hard-edged items, like stoves and pots, are not poking you in the back and that they are securely fastened to his pack. Ten miles down the trail is not the best time to find out the pot or tent poles were not properly secured to his pack and are now nowhere to be found.
- Store the fuel bottle upright in a separate compartment if possible.
- Keep food above the fuel bottles in case there is a leak.

Lining a top-loading pack with a large plastic garbage bag is an effective way to keep gear dry in wet weather. The bag repels rainwater or snow seeping in via seams or zippers in the backpack.

### Key Features: Packs

- A good fit. A badly fitted pack can give you sore shoulders and hips and a sore back, and can be very unstable.
- A well-designed hipbelt. A good hipbelt should support up to 90 percent of the pack weight without rubbing or causing sore hips.
- Curved, padded shoulder straps with top tension/load-lifter straps to take pressure off the top of the shoulders.
- A frame/framesheet to help transfer weight

- to the hips and prevent lumpy gear from poking you in the back.
- A capacity and design suitable for the gear to be carried. A small pack for summer weekends doesn't need ice ax loops, ski slots, or room for a four-season sleeping bag—a pack for a winter ski backpacking trip does.
- Light weight. It should be as light as possible for the weight to be carried—about 10 percent of the total load weight.



## Adjusting Your Pack

The back and shoulders are not designed for bearing heavy loads for a long time. The human spine will compress under the pressure of a heavy load, which is why hikers often have sore backs after even a short hike. In addition, when a load is carried on the shoulders, the hiker is constantly bending forward to counterbalance the backward pull of the pack. The solution is to lower the load to the hips, a stronger part of the body and one better designed to support the weight. The ideal distribution is about 80 percent of the weight on the hips and the remaining 20 percent on the shoulders. This split also lowers the center of gravity and makes a hiker more stable.

The hip belt may be the most important part of any pack. The inner layer of the hip belt should be soft so that it molds better to the hips; while the outer layer should be stiff, so that the belt can withstand the weight of a heavy load. The padded part of the hip belt should extend at least 2 ½ inches in front of the hipbones and there should be enough webbing left over on either side of the buckle to allow for adjustments over a longer hike. Finally, consider what is being worn under the hip belt, as this will be pressing against your skin. Pants with thick side seams, belt loops, rivets, flashlights, and zippered pockets can rub painfully while you are hiking.

Most of the times shoulder straps do nothing more than stop the pack from falling off the back. However, there are times when a hiker has to carry all or some of the weight on the shoulders (like crossing a river). These straps should be foam-filled and tapered to keep the padding from slipping. Many straps are also curved to run neatly under the arms without twisting.

Packs designed for most Scouting hikes should have shoulder stabilizer straps running from the top of the shoulder straps to the pack. These are also called top tension, load-balancing, or load-lifter straps and are designed to pull the load in over the shoulders. This is intended to increase stability, and lift the shoulder straps off sensitive nerves around the collarbone by transferring the weight to the shoulder blades. By loosening or tightening these straps, which can be done while walking, a hiker can shift the weight of the pack between the hips and shoulders to find the most comfortable position for the current terrain. On many styles of backpacks, these straps are sewn to the shoulder straps which mean altering the tension on one changes the other as well. Tightening the tension straps for better stability, will also pull the shoulder straps down onto the shoulders. When they get too tight, loosen the tension straps to cause the pack to fall backward.

Sternum or chest straps are attached to buckles on the shoulder straps. Their function is to pull the shoulder straps into the chest and help stabilize the pack. Sternum straps can be purchased separately if the pack your son has does not come with one.

To get the most out of each pack, hikers will need to make sure it fits as good as possible and it helps to know what all of those straps, buckles, and adjustments are for.

- Before putting on the pack, make sure all of the straps are loosened.
- The hip belt should be positioned just above the hip bones. Tighten this one first.
- Next, tighten the hip-belt stabilizers, which are the straps on the hip belt.
- Now tighten the shoulder straps so that they are snug, but not too tight. Hikers do not want their pack flopping around while they are hiking.

- Clasp and tighten the sternum strap to relieve pressure on your shoulders.

While hiking, it may be necessary to make periodic adjustments to the straps to make carrying it more comfortable. When taking a break that is a great time to maybe repack it if the load is not evenly distributed. Remember, the goal is to carry as much weight as possible on the hips- and not the shoulders. In addition to a padded hip belt and lumbar pad, most packs have padded backs. If the entire back is not padded, make sure the shoulder straps run far enough down the back to protect the shoulder blades.

### **Extra Hints**

- Do not take any unnecessary items — the rule should be “when in doubt, leave it out!”
- Pack all clothes and food in zip-lock bags. This will not only help to keep them dry, but he can use the bags for garbage and uneaten food from meal time. It is also a great place to put dirty clothes after changing them.
- Make sure his backpack has a hip belt, as it helps to transfer the weight from the shoulders and back to hips and legs.
- Use padded shoulder straps and a sternum strap whenever possible to help distribute the weight of the pack.
- Try to limit pack weight to no more than 1 / 4 of his body weight.
- Inspect the pack for damage and excessive wear BEFORE leaving on a trip. Out on the trail is not the best time to find out a pin is missing or one of the straps needs to be replaced.
- Bungee cords and straps that can be tightened and are much better than rope for keeping things firmly attached to a pack.
- Most packs can repel rain for a time, so to help keep the pack dry, take along a pack cover or garbage bag.
- Abundant precipitation also creates an additional problem that everyone will have to consider — mud. Caked to footgear, mud can make hiking a lot tougher and more physically demanding.
- If possible, stuff the tent and rain fly into the empty spaces that are left between other items in the backpack. Start with one corner of the tent or fly and begin stuffing it into the pack.

If he is planning to carry items outside of his pack, make sure they are securely attached to the pack with straps or bungee cords. It can be very annoying and painful to have pots and pans or other gear banging against the pack while hiking.

# Winter Camping

## Clothing

Footwear — as with other clothing, the layering system is also the answer for footwear. Start with a pair of synthetic or thin wool socks next to the skin. Then layer on a pair of heavier wool socks. When feet become damp, change into another pair of dry socks at the first opportunity. Insulated rubber boots can protect feet from water and keep them warm at the same time.

Mittens and gloves — mittens allow fingers to be in direct contact with each other. They will keep his hands warmer than regular gloves that cover each finger separately. Select mittens that are filled with insulation or pull on wool gloves. Long sleeves or cuffs will help keep the wind and snow out.

Headgear — the stocking hat is the warmest thing that can cover the head in the winter. Get one that is large enough to pull down completely over the ears. Ski masks are great in the winter and can help to keep the neck and face warm as well. The nose and ear can become frostbitten very easily, so a scarf can also be helpful.

Parkas / overcoat — coats or parkas are the most important piece of clothing in the winter. They need to be large enough to fit over extra clothing without cutting off blood flow, yet allow ventilation to keep moisture away from the body. A large permanently attached hood will also prevent heat loss around the head and neck.

Sleepwear - NEVER sleep in the same clothes that were worn during the day. They are damp and will cause a chill, which could lead to frostbite and potentially hypothermia. It is advised that he bring a thick pair of sweats and thermal underwear to sleep in. Use the sweats and thermal underwear only for sleeping in. Do not wear them during the day. Also be sure to have a couple of pairs of heavy wool socks and a dry stocking hat for his head.

Sleeping bag — should be a winter-rated bag. Typically, it should be rated for -10 to 10 degrees F. It is also recommended that your son have a sleeping pad to keep his bag off the ground. If he does not have a sleeping pad, have him bring a spare wool blanket to use as a pad. In cold weather, he never wants to sleep on an air mattress.

## Layers, Layers, Layers

When thinking about winter camping, it's worth a reminder that the secret to staying warm and toasty when outdoors is to layer clothing. Whether it's a ski weekend, a winter backpacking trip, or a regular troop campout, the same rules apply.

The inner layer is designed to keep the skin dry, rather than keep it warm. It starts with a clean, dry layer of undergarments, ideally a synthetic material or a natural material such as silk. If perspiration is quickly removed from the skin, the outer layers will keep a person warmer. Conversely, if the inner layer becomes saturated and dries slowly, the other clothes, no matter how good they are, will have a hard time keeping him warm.

Avoid cotton, as it absorbs moisture very quickly, loses warmth when wet, and takes a long time to dry. To make matters worse, damp cotton also has a tendency to cling to the skin, preventing a layer of insulating air from forming.

Polypropylene is the lightest and thinnest of wicking synthetics. It will not absorb moisture, but quickly wicks it away to minimize the chill from exercise. Polyester repels water and has a low wicking ability — not ideal for the inner layer. Wool was the traditional material for thermal underwear, though it is not as popular as it once was. Rather than wicking moisture away, wool absorbs it, leaving a dry surface against the skin. Wool can absorb up to 35% of its weight in water before it feels wet and cold. Silk is the other natural material commonly used in outdoor underwear. It can absorb up to 30% of its weight and the texture is very comfortable. However, it does demand special care, which might not be available in the winter time or on longer treks. In addition, silk does not generally dry quickly, so it may not dry overnight unless the temperatures are warmer.

The middle layer of clothing keeps him warm, but also has to deal with the body moisture brought from the inner layer. It needs to wick the moisture away or be able to absorb it, without losing its insulation value. Garments that open down the front are easier to ventilate than crew-neck or polo-style clothing — and ventilation is the best way to get rid of excess body heat and keep the clothing from getting damp from strenuous activity.

The most important task of outer clothing is keeping out wind, rain, and snow. The failure of this layer will negate all of the benefits of the other layers. Wet clothing exposed to the wind will chill a camper quickly, regardless of the material it is made from. There are a couple types of outer garments: ones that are windproof but not waterproof, and ones that are both. Keep in mind that any fabric that is waterproof is also windproof. At the end of a day of steady rain, even in waterproof rain gear, your son may find himself a little damp. That is why synthetic, wicking inner layers and warm middle layers are so important. An important point to remember is that moisture given off by the body eventually reaches the outer layer of clothing. If it cannot escape from there, it will condense on the inner surface of that garment and eventually work its way back into the other layers.

Remind him to not wear too many layers of socks, as his feet will sweat and get cold and it may limit the blood circulation in the feet. Winter boots should be loose and the air in the boots will help keep feet warm. To keep his hands warm, wear a glove liner and a pair of mittens. Fingers stay much warmer with mittens because all of the fingers share the warmth. Keep the head covered, as most heat loss occurs from the head. A knit cap under a hood will also do the trick.

While we tend to think about layering mostly in the winter, it is applicable to almost any season. Use the layering system in the summer time by stripping down to hiking shorts, a T shirt and a baseball cap. As it begins to cool off, add a long-sleeved shirt, sweatshirt or fleece.

On a crisp, fall day start out in a long-sleeved shirt, long pants, a wool shirt, sweater, mittens, and a stocking cap. As you begin to move around, your body will generate more heat than it needs. Rectify that by peeling off the sweater and stuffing it into your bag. If he is still too warm, have him unbutton the wool shirt or slip off the mittens and hat.

When he is back at the campsite and no longer exerting himself, it is possible to stay warm by reversing the procedure, pulling on just enough layers to stay comfortable. After the sun goes down, he may want to add an insulated parka, wool pants, or long underwear. But he should not wait until he is hot and sweaty to remove layers - it's too late. Remember, the key is to stay hydrated. Lower humidity in the winter helps evaporate sweat, so you must replenish yourself by drinking plenty of water. Scouting should be a year-round program and Scouts can camp even in the harshest of weather if they pack the right things and are prepared in advance.

## **A Look into a Backpackers Closet**

Here's a look into the Backpacker closet, organized around the all-important concept of layering.

### **Layer 1: Outerwear**

Outerwear is your first line of defense against the elements. It should repel rain and snow, but also breathe so perspiration doesn't build up inside your layering system and soak you from within. In wet conditions, you'll want something that's totally waterproof, with features like sealed seams, zipper guards, and cinchable hoods. Armpit zips, mesh pockets, and waist drawcords will help you ventilate when working up a sweat. In drier conditions, you can get away with a shell that's windproof. These usually aren't very waterproof but are fairly breathable, and they pack smaller and lighter than waterproof models. For summer travel in most parts of the country, a jacket is all you need. But for hikes in fall, winter, and spring, it's advisable to pack waterproof/breathable pants, too.

### **Layer 2: Insulation**

The shells mentioned above will keep you dry and prevent wind from penetrating, but staying warm is the second half of the battle. This is where the all-important insulating layer comes in. Your choices range from synthetic fleeces of various weights and thicknesses to plain old wool, to down, to a host of high-loft synthetics like Polar-guard, Micro-loft, and Primaloft, to name only a few.

Synthetic pile and fleece are the most effective all-around materials for insulation and your best choice for wet weather. The advantages of these materials are numerous: They're breathable and easy to ventilate. They keep you warm even when wet. They're warmer for their weight than wool. They trap heat while absorbing very little water. And they're durable and machine washable.

For below-freezing winter weather, add a light down jacket to your wardrobe. Lightweight and highly compressible, down won't add much to the bulk or weight of your pack, yet it will help you keep warm during rest stops and around camp.

Once you choose the materials, style is the next consideration. Jackets and pullovers offer the ultimate in warmth. Vests warm your core when the weather's chilly but not downright cold, while allowing your arms plenty of freedom of movement. And don't forget the pants! On cold-weather outings and most any travel high in the mountains, warm pile pants are wonderful to slip into once you reach camp and begin to cool down after all that hiking.

### **Layer 3: Underwear**

We're not talking Fruit of the Looms here. In the wilderness you need a base layer made of high-performance fabric that will wick moisture away from your skin, so you stay dry and comfortable--especially important when you're working up a sweat in the cold mountain air. There are a zillion fabrics of varying thicknesses and all sorts of styles to choose from, but as long as you remember the Golden Rule, you'll be all set: No cotton.

Most good underwear fabric is spun from some sort of polyester, but companies have their own secret recipes for stitching up wicking fibers. Some are woven into a "bicomponent" knit, which has different inner and outer surfaces to help move moisture away from your skin. Others feature special "antimicrobial" fibers, which claim to eliminate that pungent smell we all take on after a few days in the woods.

Wool has seen a resurgence in popularity these days, thanks to finer yarns that itch less, don't stink and wick well. Polypropylene is still available, too, as long as you don't mind your own odor.

Several weights of fabric are available. For general three-season backpacking, the lightest weight is your best choice. If you'll be winter camping, add a heavier "expedition"-weight top and bottom to your clothing bag.

### **Trail Duds**

When you're waltzing down a trail through the middle of nowhere, it doesn't matter if your colors clash or you have crisp creases in your pants. What does matter is that your clothes fit well, keep you warm, dry, and protected from prickly stuff, and most important, feel comfortable.

Most good hiking clothes aren't made of cotton. Cotton works fine for dry, warm-weather excursions, but it doesn't do you any good if it gets wet from rain or your own sweat. It takes forever to dry and can drain away precious body warmth in the process. Look for garments with flat seams, loose, comfortable cuts, and rugged fabrics that shed dirt.

### **Apparel Pointers**

Here are some more tips on packing apparel for the trail.

Anticipate your activity level when deciding what items of clothing you'll need on a backpacking trip. Vigorous hiking may allow you to wear lighter layers in daytime.

When buying hiking clothes look for versatility. The more conditions a piece of clothing will accommodate, either alone or combined with other pieces of clothing, the more it deserves a place in your pack. A synthetic midweight long-underwear top with a zipper neck, for instance, will be useful in any kind of weather.

Always allow for the unexpected when planning your wardrobe for backpacking. Consider the range of conditions--especially the worst conditions--you're likely to encounter. Weather can change very quickly, particularly in the mountains.

Be prepared for precipitation and cold temperatures in summer. Pack a wool or pile hat. For the weight, no other piece of clothing will keep you as warm.

In summer, dress for the heat of the day. Wear loose-fitting, light-colored synthetic clothing. Avoid cotton fabric, except in desert environments and extreme summer heat. A long-sleeved shirt and long pants might seem like overkill, but they'll protect you from sunburn, ticks and other bugs, and brambles, and in desert dryness, they'll reduce water loss from perspiration.

Avoid heavy, insulated parkas. Several light layers do a better job at providing greater warmth and more versatility than a single heavy layer.

Resist the temptation to wear extra thick socks or too many socks. These can impede blood flow, making your toes feel cold. A combination of properly weather-sealed boots and good socks will see you through almost anything Old Man Winter throws your way. On the trail, wear a thin, synthetic liner sock topped by a wool or synthetic hiking sock. Save the heavy socks for when you pull into camp and make the switch into down booties.

In winter, carry more warm clothing than you think you're likely to need.

## **Common Misconceptions**

Myth #1 - Leather hiking boots will keep your feet warm (FALSE) - the snug fit of most leather hiking boots can limit the circulation of blood in the foot. Especially when wearing thick socks. The cloth stitching in leather boots can also wick moisture into the shoe. Nothing is worse than wet feet in cold weather.

Myth #2 - Waterproof clothing is ideal for cold weather camping (FALSE) - to keep warm in the cold, your clothing must allow body moisture to escape. Moisture that is trapped too close to the body can wick heat away from it through evaporation. It is better to layer your clothing in cold weather, including insulated synthetic underwear.

Myth #3 - Winter camping does not require much preparation (FALSE) - arctic conditions exist when the wind is blowing and the temperatures drop below 20 degrees F. It is very important to prepare, and in some cases, to over prepare. It is not a bad thing to have too many clothes or be too warm at a winter campout.

Myth #4 - Mental attitude has little to do with winter camping (FALSE) - a positive mental attitude is the most important ingredient in the success of winter weather camping trips. The demands of winter will drain his energy and he will have to rely on himself to keep his spirits high.

Myth #5 - In cold weather, tasks can be done just as quickly as in warm weather (FALSE) - every effort in cold weather takes longer to complete. Be sure to bring some winter patience with him when winter camping.

## Staying Warm – Daytime

Keeping warm is the most important part of cold weather camping. Use the C-O-L-D method to assure staying warm while outside.

**C — Clean** — since insulation is only effective when heat is trapped by dead air spaces, keep insulating layers clean and fluffy. Dirt, grime, and perspiration can mat down those air spaces and reduce the warmth of a garment

**O — Overheating** — avoid overheating by adjusting the layers of clothing to meet the outside temperatures and the level of activity. Excessive sweating can dampen garments and cause chilling as the day goes on.

**L - Loose Layers** - a steady flow of blood is essential to keep all parts of the body heated. Wear several loosely fitting layers of clothing that will allow the maximum insulation without restricting circulation.

**D - Dry** - damp clothing and skin can cause the body to cool quickly, possibly leading to something more serious like frostbite or hypothermia. Keep dry by avoiding cotton clothes that absorb moisture. Always brush the snow off clothes before entering a heated area or camp fire. Keep the clothing around the neck loosened so that body heat and moisture can escape instead of soaking through several layers of clothing.

Some other helpful hints for staying warm in the winter:

- Avoid cotton in the winter! It holds moisture and takes a long time to dry. Wool clothing is best, but needs wind protection; synthetics are also good; down is OK as long as it stays dry.
- Make the outer most layer wind-resistant. Keep rain and wind out of the insulation layer.
- Keep the torso warm so that it can send heat to all extremities, like fingers and toes. A vest works great.
- Do not constrict wrists and ankles. It will limit the warm blood from circulating through them.
- Remember to use his head. Keep it covered when he is cold; remove his cap when he starts to heat up. If his feet are cold, have him put on a hat. Most body heat is lost through the head.
- Do not hang out next to the fire thinking it will keep him warm. If he can feel the heat of the fire, than he is most likely not adequately insulated and needs to put on another layer.
- Avoid sweating by ventilating clothing. Use those layers and remove or loosen them when he gets hot; put them back on when starting to get cold.
- Keep active. Moving around is the best way to stay warm.
- For cold feet, make sure socks are clean, dry, and roomy.

## Staying Warm – Nighttime

The sleeping bag used does not heat the camper; the camper heats it. Think “thickness is warmth.” If your son is getting cold, have him add some more insulation (blankets, fleece insert, another sleeping bag). Some other ideas to help him stay warm at night:

- Insulate underneath him. The ground is cold and he will lose body heat if he is in direct contact with it. As a rule, have three times more insulation underneath him than he has on top.
- Stay on a foam pad or pile of blankets, newspaper, or some other insulator. Do not use a blow-up air mattress!
- Do not sleep with his head inside the sleeping bag. His breath contains moisture and if he closes the bag with his head inside, the bag will get wet on the inside and he might get cold.
- Change his clothes regularly and as needed. NEVER sleep in wet clothes or clothes that have been worn during the day. Even if they do not appear to be damp, perspiration from the day will cause a chill at night. Wear a layer of synthetic underwear, loose socks, wool or dry socks and a fleece or hooded sweatshirt.
- Keep sleeping clothes separate and do not wear them during the day. Pack all of the clothes in zip-lock bags.
- It is best to pack an entire change of clothes in one bag. That way he can put the clothes he takes off back into the bag and will not have to be rummaging through his bag for a dry pair of socks.
- NO cotton!! Cotton clothing holds water and will make him colder. They absorb the moisture from the body and trap it next to the skin.
- Wear a ski hat to bed. Remember 700/c of body heat is lost through the top of his head. Wear a knit hat or a full ski mask to bed. Wool, fleece, and acrylic are the best ones.
- Ventilate the tent — leave the back or top flaps of the tent open about four inches. This will allow the moisture from everyone’s breath to escape out of the tent and not collect on the sides. Tightly closing all of the zippers will not keep the tent any warmer.
- Eat a candy bar or other snack before turning in for the night — this will increase metabolism and help keep him warmer. Make sure he does not try and sleep dehydrated; he might save a trip to the latrine but he will sleep colder in the process!
- Make sure he goes to the bathroom before bed — this saves him a trip in the middle of the night; keeping the heat in his sleeping bag.
- Do not dry “wet” clothes in or under a sleeping bag — moisture will travel from the wet clothes to the sleeping bag.
- Put tomorrow’s dry clothes under or inside his bag — this heats up clothes for tomorrow and also provides another layer of insulation between him and the ground.
- Keep the sleeping bag as dry as possible. Unzip the bag during the day and let it air out. This reduces the moisture in it.
- Fluff up the sleeping bag before using it — always fluff up the bag before getting into it to create the thickness important in keeping warm.

# Campout Packing Lists

## Standard Weekend Camp Packing List

### Required

Scout Uniform – to travel to and from campout  
Sleeping bag  
Boots (hiking or water proof winter boots depending on the weather)  
Personal drinking cup  
Backpack cover (or garbage bag to cover pack)  
Cup, bowl, and spoon  
Flashlight (with fresh batteries)  
Rain suit  
Backpack  
Toilet Kit

### Optional

Sweat suit/pajamas  
Long underwear – no cotton  
Boy Scout Handbook  
Pencils & paper  
Pocket knife  
Pillow  
Wool or fleece blanket

### Extra clothes

Jacket (suitable for weather)  
Socks (2-3 pairs)  
Shirts (2-3) – (wool or synthetic material is preferred)  
Underwear  
Sweatshirt/sweater (depending on weather)

### Recommended

Personal first aid kit (including moleskin)  
Foam pad  
Garbage bags (2)  
Hat  
Gloves  
Sunscreen and lip balm  
Toilet paper  
Hydration bladder

# Klondike or Winter Packing List

## Required

Scout Uniform – to travel to and from campout  
Rubberized winter boots or proper hiking boots  
Backpack cover (or garbage bag to cover)  
Sleeping bag (in plastic bag or water proof sack)

2 water bottles (1 quart size – filled at home)  
Flashlight (with fresh batteries)  
Personal drinking cup  
Cup, bowl, and spoon  
Hat  
Gloves  
Backpack  
Toilet Kit

## Extra clothes

Pants (wool if possible)  
Sweatshirt/ sweater  
Fleece pullover  
Socks (3-4 pairs)  
Underwear, long underwear (preferably of synthetic material)

## Recommended

Rain suit  
Personal first aid kit (including moleskin)  
Foam pad  
Garbage bags (2)  
Extra jacket (suitable for weather)  
Toilet paper  
Hydration bladder

## Optional

Pillow  
Sweat suit/pajamas  
Pocket knife  
Boy Scout Handbook  
Pencils & paper

# Backpacking Trip Packing List

## Required

Scout Uniform – to travel to and from campout  
Hiking boots (well broken in)  
Backpack cover (or garbage bag to cover)  
Sleeping bag (in plastic bag or water proof sack)  
  
2 water bottles ( 1 quart size – filled at home)  
Flashlight (with fresh batteries)  
Personal drinking cup  
Cup, bowl, and spoon  
Rain suit  
Backpack  
Toilet Kit  
Personal first aid kit (including moleskin)  
Sunscreen/lip balm  
Toilet paper  
Rope

## Extra clothes

Pants (no jeans is preferable)  
Sweatshirt/ sweater  
Fleece pullover  
Thick Hiking Socks (2-3 pairs)  
Underwear, long underwear (preferably of synthetic material)

## Recommended

Foam pad  
Extra jacket (suitable for the weather)  
Garbage bags (2)  
Hat  
Gloves  
Hydration bladder

## Optional

Pillow  
Sweat suit/pajamas  
Extra straps  
Pocket knife  
Boy Scout Handbook  
Pencils & paper  
Backpack repair kit  
Duct tape

# Suggested Food Lists

## Backpacking /Klondike Food List

Breakfast	Lunch	Dinner
Cold cereal (dried milk)	Peanut Butter	Instant soups
Instant cereals	Cheese	Dehydrated dinners
(oatmeal, cream of wheat, etc)	Crackers	Instant macaroni / cheese
Breakfast bars	Rice Cakes	Burritos
Bagels	Bagels, cream cheese	Bread sticks, rolls
Fresh fruit	Beef Jerky / beef stick	Instant rice mixes
Orange/apple	Canned eat (chicken/tuna/ham)	Dried Noodle mixes (Lipton)
Juice	Dry salami/pepperoni	Canned chicken/ham/tuna, etc
Nuts	Summer sausage	Frozen foil dinner
Beef jerky	Instant soups	PBJ
Precooked Bacon	Apples/orange	Quick Cook Chili mix (add summer sausage)
Pancakes/syrup	Dried fruit	MRE
	Carrots	Jambalaya or red beans & rice mixes
Instant cocoa	Chips, canned dips	Instant mashed potatoes
Powdered breakfast drink	Powdered fruit drinks	Fresh vegetables to sauté
Dehydrated eggs	Pita bread	Pre-made frozen chili, pasta
Mini-Muffins / donuts	Nuts, trail mix	Instant desserts
Snack-pack cereal	Cookies	Spaghetti/canned sauce
Pop Tarts	Energy bars	Baked potatoes in foil
	Quesadillas	Pizza
	Mug-o-Lunch	Instant potatoes
	Snack pack pudding / jello	
<b>Snacks</b>		
GORP (peanuts, M&Ms, pretzels, chex mix)	Fruit snacks	Granola bar
Energy bar	Nuts	Crackers and cheese
Crackers and peanut butter	Candy	

\*\* - This is a sample list, and not all of this food is required for a weekend backpack trip. Only food which is immediately edible, can be cooked directly over a wood fire, or can be cooked using only hot water is suitable. Large canned goods are not appropriate for backpacking due to the excess weight.

Multi-piece mess kits are not needed - only cup, bowl, and spoon. Pack all food and water bottles in zip lock bags. Each meal should be packed separately for ease in finding it once we are on the trail. The zip lock bag can then be used for packing out uneaten food and garbage from the meal.

## **List of Recommended Brand(s)**

<b><u>Item</u></b>	<b><u>Brand</u></b>
BackPack	Kelty Yukon Youth External Frame
Polypropylene base layer	Duofold, Hot Chillys or equivalent
Cup, bowl, and spoon	Lexan recommended
Water bottles	Lexan or Nalgene
Hydration bladder	CamelBak brand recommended
Sleeping bag	Slumberjack
Sleeping pad	Therm-a-rest
Wool socks	Smartwool or Thorlos
Headlamp	Petzl, Black Diamond, Energizer

Most items can be found at Dick's Sporting Goods, The Sports Authority.

Online Retailers:

[www.campmor.com](http://www.campmor.com)

[www.coleman.com](http://www.coleman.com)

[www.rei.com](http://www.rei.com)

[www.ems.com](http://www.ems.com)

[www.sierratradingpost.com](http://www.sierratradingpost.com)