

Equipment:

For weekly meetings, the boys should wear their uniforms as specified in the Uniform Standards, and bring their Scout Handbooks.

For outings, the equipment they will need will depend on the nature of the outing. In general, the boys will need the following, as an absolute minimum:

- A good sleeping bag (*rated to 15-20°F, mummy style with stuff sack*)
 - Hollowfill, or other synthetic to maintain warmth while wet
 - Down bags are recommended only for experienced/older Scouts and Leaders
 - NO COTTON FILLED sleeping bags are allowed
- Insulating pad for use under the sleeping bag
- Raingear (*Pants, Jacket and Hat*)
- Shoes (*more than one pair – hiking boots and camp shoes*)
 - Hiking Boots (*Waterproof/treated with an appropriate product*)
- 10 essentials (*listed in Scout Handbook*)
- Hand sanitizer (*small*)
- Poly Underwear – Top & Bottom
- Shirt, Pants & Socks (*wool*)
 - **NO COTTON CLOTHING!!**
 - Extra Change of Clothes
- Fleece Jacket or Pullover (*for layering - for warmth*)
- Fleece/Wool Ht & Gloves
- Optional wool sweater
- MESS KIT – Lexan/Poly/Stainless/Titanium – BOWL & SPORK at a minimum
- Optional fleece sleeping bag liner

Many Troops have some “loaner” gear available for “New” Scouts (*Goal - Scouts should look to furnish their own basic camping gear by First Class, or after approximately 1-year with the Troop*):

- | | |
|--|--|
| • Tents | • Backpacks (<i>large and small</i>) |
| • Stoves (<i>backpacking and campstoves</i>) | • Ropes |
| • Patrol boxes (<i>cooking utensils</i>) | • Canoes |
| • Lanterns | • Life Vests |
| | • Paddles |



The SPL Is "The Youth Leader" Of The Troop

Backpack Fitting

– source www.REI.com with some added commentary on pack types

The first component to properly finding the proper backpack is TORSO LENGTH. After selecting the proper pack size, then learning how to adjust your pack for proper fit and comfort, is the next critical skill each Scout and Scouter needs to know.

External frame packs have the advantage of lifting the pack off of the back for a “cooler” feel, due to increased airflow, and these are also less susceptible to load discomfort (*due to hard items digging into one’s back from an improperly loaded pack*).

Internal frame packs (*which seem to be the majority of what’s on the market*) offer comfort and the new ones are very supportive due to internal aluminum stays (*which can be bent to mold to one’s back*).

Properly allocating load in the pack is important for all models, with the heavy items in the bottom of the main “pocket”, and getting lighter items as the pack fills. There is nothing more concerning than seeing a Scout load his pack so it is unbalanced, with the heavy items high in the pack, and him having to battle the high CG of that pack. It will wear Scout and/or Scouter out rapidly to do this.

Another benefit to newer pack design is the pocket for the sleeping bag. This typically provides a water-proof (*maybe?*) area where a compression-sacked stowed sleeping bag can go. This can be a benefit, since every additional item that must be strapped to the backpack has the risk of swaying or getting lost with some Scouts. This simply removes that. The downside is if the pack is not properly cared for, then don’t count on this pocket to be a water-proof area for the bag - as it is sure to leak at the worst time. Be Prepared.

Ducks-back backpack sacks/covers are always a good thing in wet weather!! Even if your pack is “waterproof” these are still recommended. Having wet gear is no fun.

The following webpage has an excellent video for finding torso length - <http://www.rei.com/expertadvice/articles/backpacks+torso+hip+size.html>

You can spend big bucks on a high-tech pack, but if it doesn't fit right, you won't be comfortable. My experience with REI's pack-fitting experts to help share their tips here for getting the right size pack, has been great.

Find Your Torso Length

Just because you are a certain height — say a 5'9" female or 6' male — does not mean you automatically need a "large" or "tall" pack. **Your torso length, not your height, determines your pack size.** Here's how to measure yours:

Have a friend locate the bony bump at the base of your neck, where the slope of your shoulder meets your neck. This is your 7th cervical (*or C7*) vertebra. Tilt your head forward to locate it more easily.

Using a flexible tape measure, your friend should start at that spot and measure downward along your spine.

Place your hands on your hips so you can feel your iliac crest, which serves as the "shelf" of your pelvic girdle. *(It's the first hard thing you feel when you run your fingers down from the sides of your ribcage.)* Position your hands so your thumbs are reaching behind you.

Have your friend finish measuring at the point where the tape crosses an imaginary line drawn between your thumbs. This distance is your torso length.

Use your torso length measurement to find your best pack size. Generally, manufacturers size their pack frames something like this:

Extra Small: Fits torsos up to 15-1/2"

Small: Fits torsos 16" to 17-1/2"

Medium/Regular: Fits torsos 18" to 19-1/2"

Large/Tall: Fits torsos 20" and up

On REI.com's product pages, you can find the torso range for each pack size listed just above the spec chart. If your measurement is right on the border (*say, 17-3/4"*), it's best to visit an REI store to try on both sizes of that pack. REI's product line includes adult packs sized to fit torso lengths as compact as 12" (*10" for children*) and as long as 23". If your measurement lies outside that range, you might require a custom-built pack.

Determine Your Hip Size

While not as crucial as your torso length, your hip measurement is useful to know. It's especially helpful if you are considering a pack that offers interchangeable hipbelts.

Take your tape measure and wrap it around the top of your hips, the "latitude line" where you can feel your iliac crest — those two pointy bones just above the front pockets on your pants. A properly positioned hipbelt will straddle your iliac crest, about an inch above and below that line.

Backpack Fit Method

Now, learn about [adjusting your pack](#) for the optimum fit. Here's an excellent REI page with video on adjusting a backpack for proper fit -

<http://www.rei.com/expertadvice/articles/backpacks+adjusting+fit.html>

Once you've selected a pack with the right [torso length](#) and hipbelt size, you need to get properly fitted. REI's pack-fitting experts recommend these steps to help you enjoy a comfortable fit every time.

Quick Read

- With all straps loosened, place hipbelt directly over your hip bones and tighten it.
- Snug shoulder straps just enough so that they are not bearing weight.
- Snug load-lifter straps so that weight is off of your shoulders.
- Adjust sternum strap to a comfortable height across your chest.
- Adjust load stabilizer straps along sides of hipbelt to bring load closer to your back.
- Go back and loosen shoulder straps to take some tension off of them.

Six Steps to a Great Fit

Your goal is to have 80% to 90% of the load weight resting on your hips. To achieve this, start by putting about 10 to 15 lbs. of weight into the pack to simulate a loaded pack. Follow the steps below in front of a mirror. Get a friend to help if possible, or visit an REI store for more assistance.

Step 1: Hipbelt

First make sure all the pack's straps and hipbelt are loosened.

Put the pack on your back so that the hipbelt is resting over your hip bones.

Close the hipbelt buckle and tighten it.

Check the padded sections of the hipbelt to make sure they wrap around your hips comfortably. Keep at least 1" of clearance on either side of the center buckle.

Note: If the hipbelt is too loose or tight, try repositioning the buckle pieces on the hipbelt straps. If this doesn't solve the problem, you may need a different pack (*or hipbelt*).

Step 2: Shoulder Straps

Pull down and back on the ends of the shoulder straps to tighten them.

Shoulder straps should fit closely and wrap over and around your shoulder, holding the pack body against your back. They should NOT be carrying the weight.

Have your helper check to see that the shoulder strap anchor points are 1" to 2" inches below the top of your shoulders.

Step 3: Load Lifters

Load-lifter straps are located just below the tops of your shoulders (*near your collarbones*) and should angle back toward the pack body at a 45-degree angle.

Gently snug the load-lifter straps to pull weight off your shoulders. (*Overtightening the load lifters will cause a gap to form between your shoulders and the shoulder straps.*)

Step 4: Sternum Strap

Adjust the sternum strap to a comfortable height across your chest.

Buckle the sternum strap and tighten until the shoulder straps are pulled in comfortably from your shoulders, allowing your arms to move freely.

Step 5: Stabilizer Straps

Pull the stabilizer straps located on either side of the hipbelt to snug the pack body toward the hipbelt and stabilize the load.

Step 6: Final Tweak

Go back to the shoulder straps and carefully take a bit of tension off of them. Now you're ready to go!

Dutch Oven Seasoning Before Use & Care Instructions

1. Ensure all surfaces have no rust. If it does, remove ALL surface rust by scouring the surface using a medium to light grit emery cloth or wet/dry sandpaper for metal. Wipe after sanding with a damp paper towel to check all surface rust is removed. Repeat the sanding and checking until ALL of the rust is removed.
2. Preheat an oven or a gas BBQ to 350°F on BAKE. In the oven you'll need to remove a grill or two for clearance. On the gas grill, you must be able to close the lid with the Dutch Oven and lid inside the BBQ (*on the grill*). Cover either grill (*oven or BBQ*) with aluminum foil to catch excess oil drips just in case. Cut some slits for the heat to flow through (*about every 3 wire spacing over entire foil surface*). We recommend using a gas BBQ if possible since this does make some smoke, unless you have a good fan to ventilate your kitchen area.
3. Wash the Dutch Oven using HOT, soapy water and a stiff brush. Rinse using HOT water. From this point on it is important that NO soap get onto any surface of the Dutch Oven, so ensure that the area and your hands / towels...etc are free of any soap.
4. Re-rinse using HOT water followed by SLIGHTLY COOLER water at least 3 more times. This is important since it "pumps out" the microscopic areas in the metal due to the cast iron and the porous nature of that metal. This ensures that no soap film is present, and no soap is contained in the surface of the metal. You must make sure there is no soap left.
5. Towel dry all surfaces completely. It is important that all surfaces are totally dry.
6. Using ONLY pure vegetable oil (or organic flaxseed oil) and a paper towel, wipe a thin coat of oil over all of the surfaces, inside and outside, including the handles, feet...etc. You need to ensure complete coverage, but only a thin coating is needed.
7. Place the oiled Dutch Oven, FEET UP on the foil surface. Use a stainless steel knife, fork or spool at one location under the Dutch Oven, to slightly prop up one side of the Dutch Oven. This will aid in airflow and the seasoning process. Take the oiled lid and place it in the upward pointing feet of the Dutch Oven top side up (*side w/the handle is up just like you'd put it on the oven*). The lid is now resting on the feet.
8. Bake in the preheated oven or BBQ for at least 1 to 1.5 hours (*with the recommended time of 1.5 hours to darken the seasoning*). There is no need to go beyond 1.5 hours at 350°F (max). With flaxseed oil, you can lower the temperature to 200°F, but you need to repeat the oil and bake procedures at least 1 additional time.
9. After the above time limit, do not remove anything, simply turn the gas BBQ or oven off and allow everything to cool naturally. This may take up to 1 - 2 hours (*min*).
10. Upon removal, wipe a thin layer of pure vegetable oil (*or flaxseed oil*) on all surfaces again, then take a paper towel and re-wipe to remove the excess. Place a folded, clean paper towel under the lid for air-flow when you put the lid on, and you're done.
11. Return these to us so we can store them in a dry location. Make sure to return these cleaned, oiled, and totally free of any rust - for the next person to use.
12. Apply some vegetable oil to the cooking surface before use, cook and enjoy your meal!

Additional "New Scout Outing" Info On Equipment:

We recommend that you buy your Scout a good pair of boots, as he will use them and if he's not comfortable it will instantly put a damper on his enthusiasm.

- There are many brands out there. For a nice light-weight pair, both Keen and Teva make some great selections. Some have GORE-TEX liners, some do not. If possible the GORE-TEX lined boots are good choices. Over the last several years, members have used various pairs of Keens, Asolos, and other brands from REI. Make sure they fit properly as each foot shape is different. Go later in the day/evening as you foot tends to swell in the evening, and size with the appropriate hiking socks on. No matter which boot you select, make sure to use an appropriate water proofing product, even with a GORE-TEX liner. Be sure the waterproofing material is safe for the liner, if it is so equipped (usually the water based products are). The water-based Nikwax products at REI and a Water Shield product (*comes in a black plastic spray bottle at Sportsman's Warehouse*) are both excellent. The only task these don't take care of is when the leather is drying out, then use either Filson Boot Oil, or the Water Shield Oil-based product, to prevent the leather from drying out and cracking.
- Each pound of additional weight on your feet feels like you are carrying an additional five pounds on your back - on a long hike. Light-weight, sturdy footwear is critical, especially for the new Scout.

Raingear is one area where you can avoid the high ticket prices, but be careful.

- The coated-nylon COLUMBIA brand gear works very well. It is ventilated to not trap moisture, and sometimes it even has the EVENT™ fabrics at reasonable prices to help with evaporation. Since he is growing, these are the products that won't last for many years. Stay away from the poly raingear (i.e., the clear, yellow or green plastic stuff). It will trap moisture, rip, and is basically useless. REI discount bins and the clearance rack are good places to check. Sport's Authority also has some good items, but look carefully. As for the higher-end, light-weight backpacking raingear, wait until he is just a little older, since the expense is greater. Ponchos do not offer adequate protection for the Scout, or Scouter, as a primary raingear selection.

Fleece clothing/hat/gloves

- There are many good sources of fleece items. Stay away from the really cheap stuff, and there are times the windproof items are nice, but it not a necessity. UA, COLUMBIA, MOUNTAIN HARDWARE & REI are just a few of the good brands for some of these items.
- Keep an extra fleece or wool hat for sleeping, it's an excellent way to help stay warm.

Wool Socks and optional sweater

- Smartwool makes some great socks that you can select the density of the weave for use and temperature. If taken care of, they will last a while. Get a few pairs so he can change at least 3 times, if needed. Wool is always good, and a good wool sweater (*even the military surplus ones*) will last for a while.

- Don't skimp for cheaper products on the socks, as he will feel the difference. The Thorlo wool socks at REI are also good, and they sell them at the Scout Shop as well.
- Keep a 4th pair just for sleeping, for additional warmth. Fleece socks also work well for a sleeping pair and they are very light weight.

Sleeping Bag/Liner/Pad

- Use a synthetic bag rated in the range of 15-20°F. A 25°F bag will work on most colder outings with the addition of a fleece or silk liner. **NO COTTON rectangular bags.** Make sure it is a mummy shape and REI is the best source. The Zephyr, Volcano and other similar models are all good. Some come in a shorter length (*saves weight*), but remember this is a purchase that he'll use for several years. Get a light weight and warm bag. Stay away from the super heavy, rectangular things, as they are good only for indoor sleep-overs.
 - The Jr- sized, or short bags, are great for the younger guys. These may last 3 years, or so, before he out-grows it. It also saves on weight.
 - Sometimes you can also find the female specific bags on sale, when the men's bags are not. There are some deals here as the toe-box is usually warmer and there is additional width in the hip region of the bag. As long as the colors work, and are fairly unisex - who will know?
- The use of a low-cost fleece liner adds about 5°F to the rating (*and helps keep the bag clean*). Silk liners are also good and they add about 5°F as well. **NO COTTON LINERS.**
- The pad is primarily for insulation from the ground. This is a wide price point item. Thermarests are great, but many of them are heavy (*except for the hiking specific ones like the Pro-lites but we don't recommend one for a new Scout, as they are not durable*).
 - A good selection here is the Z-Rest, or Ridge-Rest, dense, closed-cell foam based Thermarest products. For future winter camps, he can use this and a regular thermarest for 2 layers of insulation under the bag (*which is what others do*), so it'll never be outgrown.

These above items should help you start to get your Scout, or yourself ready, but please feel free to ask any adult leader if you have any questions. Troop 571 will cover some of these basics again during the Parent Orientation at the New Scout outing.

Another item - **Please remember that NO FOOD is allowed in the tents.** Also, improperly storing food in the backpacks is also an issue. We will teach the Scouts that ALL FOOD must be well away from the tents/backpacks while in camp. In the future they will learn how to use "Bear Bags" and the "BEAR-muda Triangle" methods for safe camping. The change of "sleeping clothes" also allows for no food smells in the sleeping bag too. We'll cover these with him, but it's a good topic to start discussing with your Scout at home. The Troop will do much more on this topic in the future when we discuss "smell-ables."

Winter Camping Tips

Boots & Clothing

This section of the Handbook is meant to supplement the above “New Scout” and “Equipment” sections with specific details for winter camping. There are many great sources out there for reference information from www.Backpacker.com and www.REI.com, just to name a few, as well as **OKPIK (#34040)** – extreme winter camping at N. Tier facility.

When planning a winter camping trip, especially if snow camping, remember that foot travel will be much slower than in summer. Reduce mileage goals by 50%-60%. Daylight hours are fewer in the winter, so plan to be settled in camp earlier.

When winter camping, dress in layers so you can easily adjust your clothes to regulate your body temperature and moisture. Three types of layers are considered normal; a base layer against your skin (*usually longjohns*), an insulation layer (*fleece*), and a water and windproof outer shell.

Boots should have waterproofed outer shells such as oiled/treated leather or plastic / rubber. The best boots for winter use are the Pac-type boots (*such as the Sorel Caribou boots*). Do not just rely on standard hiking boots that you use for backpacking. They are not as well insulated (*even with good, wool socks on*). In addition, the fabric outer shell components and the Gore-Tex liner which keeps you dry in the summer, along with the wet weather will actually cause you to be colder - since the fabric details in the outer shell will absorb water and once wet they will simply place ice next to your foot (*i.e...water that has frozen in the fabric*). If you have “solid leather” hiking boots (*which are sold at REI, but usually not recommended for Scouts since they are heavier*), properly waterproofed, they are fine but they also lack the better insulation of a Pac-Boot. If you use a “knock-off” brand of Pac-Boot (*other than Sorel, or the exact copies from other brands*) then make sure it has a thermal rating down to the desired range. The better Pac-Boots will provide this, while the lower cost ones will not. Be aware what you have - to be prepared.

Do not wear too many socks thinking that this will keep your feet warm, as your boots only have a set volume. If you wear too many socks, you’ll actually restrict the blood-flow and lose the body heat in your feet. Make sure your boots and socks are sized appropriately before the outing. The same goes for gloves and liners. Make sure the liners, in particular, are sized properly to prevent blood-flow restriction, and that the gloves fit over them with some room.

Gaiters are great to keep the snow from falling into your boot tops, and they add another layer, which will help to insulate.

Always carry extra gloves and liners in plastic bags (*to keep them dry*), and change if the other ones become wet and when it’s heading towards nighttime as the temperature will drop. Carry extra dry socks (*again in plastic bags to keep them dry*) and change after doing heavy activity (*such as the Klondike races*) or when wet. Wet socks and gloves may be dried by using your body heat by placing them next to your skin (*it will take all day/night - as long as you are warm, well prepared, but do not do this if you are shivering or cold*).

Food & Water

Make sure to stay well hydrated. You can get dehydrated very easily in the cold, and most people will not realize it until they are dehydrated. Staying well hydrated also keeps you warmer as your fluid levels are maintained.

Increase your food intake. Estimate 1.5x-2x times the normal calorie intake as the additional calories are for generating body heat. This is not the time to diet. Make your food as easy, 1-pot type meals. Food should be fast, easy and filling, plus it makes the clean-up easier - given the shorter daylight hours.

Water mixed with Gatorade, or other mixes, may freeze at a lower temperature or sooner depending upon the ingredients. Use only “non-smellable” Nalgene (*i.e...they have NEVER had anything other than just plain water in them*) and place in your pack in a sock and in the middle of all of the clothes to insulate it, or in your sleeping bag, to prevent from freezing. Warm water can be placed in a Nalgene and also used to keep you warm at night. Just make sure the lid is on tight, so it won't leak.

Water filters require specific care to prevent them from freezing, which will destroy the filter. Chemical water treatments take longer to work in colder temperatures. When melting snow for water, place just a small amount in the pot and as that melts add more. Do not fill the pot then try to melt it as you will “scorch” the pot. Carry some coffee filters to filter the melted snow, as there will be bits of leaves, trigs and other matter you might not want to drink. Boil the water for at least 5 minutes, or use a treatment before drinking. Make sure to follow the proper instructions for the treatment.

Shelter

Try to use only 4-season tents for winter tent camping. While many times the 3-season tents work well on many camping trips during the winter, a strong winter storm can destroy the material integrity and poles of the tent, as they are not made to the standards and strength of a 4-season tent. Remember, you have both wind and snow loads to account for.

Select a site sheltered from the wind. Hang tarps in the trees as extra wind blocks if needed. Avoid vegetation and remember to “Leave No Trace”. Pack down the snow prior to setting up your tent, otherwise you'll sink into the snow as you sleep and will not be comfortable. At sites where there is no blocking of the wind, dig down 1-2 feet, pack that area, and set up your tent in the new “hole”. Make sure to extend your dig into your vestibule area - to make getting in and out easier.

Setting standard pegs in snow is impossible and they will not hold during any wind. Logs and rocks work well. The ideal stakes are “snow stakes” (*semi-circular stakes made to have a large area*), or snow flukes (*looks like oversized REI hiking stakes*) or snow skewers. Surface area, and size, matters for these to work well.

In Camp

Have a lightweight shovel and dig a trench 1-2 feet deep, then an adjacent area 3-4 feet deep. Sit down on the shallow “bench” and you have an instant bench seat and table arrangement.

Put dry socks on as soon as possible. Sweaty socks will give you cold feet in no time, since you are not hiking anymore.

Use a closed cell foam pad to sit on in camp. Insulated mugs keep fluids hot for longer periods. Drink extra hot fluids at night. Snack before bed to provide your body the fuel it needs to make heat. Exercise for a minute before you climb into your tent to “rev-up” your body - before getting into your sleeping bag.

At Night

Increase your sleeping bag comfort range by using a bivy sack, fleece liner, silk liner, or fleece blankets (*roll up in these*). **NO COTTON LINERS.** (*See our previous section on the proper types of sleeping bags.*)

ALWAYS use a dense, closed-cell foam (*such as a Z-Rest, or Ridge-Rest*) pad under your sleeping bag. For additional comfort, use the dense foam pad, then a second - closed cell pad (*such as a Thermarest*) above it, to place you off of the snow, and for additional insulation from the “heat sink” (*i.e...the ground/earth*).

Sleep with a fresh/clean fleece or wool stocking cap, and fresh/clean fleece or wool socks. Fresh/clean glove liners are great to keep your hands warm, and always have a fresh/clean sleeping longjohns or other similar items to change into before getting into your sleeping bag for the night.

Make sure all vents on the tents are OPEN. Otherwise your breath will condense and get everything wet inside the tent. This is a common mistake made by new Scouts, and it actually works against them since they actually get chilled due to the wetness.

In the Morning

Warm up your socks, clothes...etc before getting dresses by pulling them into your sleeping bag for a few minutes and before you get out of the bag. To prevent your feet from getting cold, also remove the insoles from your boots and warm them up in your sleeping bag too. This will warm those items up so you’ll be more comfortable and happy.

Get some water and food, then enjoy your day.

Remember winter camping has challenges, but there are no bugs, dust and all you have to do with the tent is to dry it out when you get home.

For additional info from BSA National on this subject:

<http://www.scouting.org/scoutsource/BoyScouts/TrainingModules/ColdWeatherCamping.aspx>