

Beginning Backpacker Equipment

Please don't run out and spend \$700 or more on an adult pack, hi-tech tent, Gortex boots, down sleeping bag, and all the gear needed for a through-hike of the AT when outfitting your Scout for his first backpacking trip. If he likes backpacking and sticks with it, he'll form his own opinions on what gear is good/not and what he wants by the time he outgrows his starter gear (and they do grow out of it quickly). A lot of the gear needed is probably already in your son's general camping or sports gear. The "specialty" items that are needed include:

- Boots (broken in hiking 5-10 miles around neighborhood, at Kennesaw, etc.) \$30+
- One-two pair non-cotton thick/outer hiking/backpacking socks \$8+/pair
- Two-three pair non-cotton thin/inner liner socks \$4+/pair
- Rain suit (\$40-50) (lightweight, coated nylon ideal) – no ponchos, please!
- Sleeping bag \$60-100 (sized to fit, mummy shape; not an adult size if a 5' youth bag fits, not cotton/fleece, not down)
- Backpack (sized to fit, we have a few that can be borrowed if they fit) \$50-\$80+

Hopefully, you've already got some of this stuff. Even if not, looking at the above list and completely outfitting the specialty items would run from about \$150 (borrowing a troop pack) to about \$250 including a pack and a bit less minimal gear. You could of course easily spend \$700-1000+ but please don't! See the sections below for recommendations on specific gear and vendors.

First, a couple of "**don't**'s":

- Don't buy down (it's expensive and worthless if wet – and kids get wet)
- Don't use cotton or fabrics containing cotton (e.g., jeans, cotton tee shirts) – they are too cold when wet and dry very slowly.
- Don't buy adult sizes with the hope that they'll grow into them (particularly true of sleeping bags, packs and boots)
- Don't overbuy – they're going to grow fast and you'll be selling it for a fraction of it's worth at a garage sale in two years!

Note: This document is a work in progress. It contains a lot of personal opinions and notes over which reasonable folks may disagree on some details (such as brands and preferences). I'm sure this document will evolve with feedback from parents and Scouts but it represents my best sense of the "right" gear based on raising two kids who enjoy backpacking, working with many Scouts from Tenderfoot to Eagle, and on my own experience both as a youth and now an adult with well over 2,000 trail miles.

Ferrell Moultrie 10-2005.

Borrowing Gear:

The troop has tents and a limited number of back packs. Ask your son to check with the Quartermaster or his advisor and see how we're doing on the packs. The last time I looked there were a number of them available. The troop also has several very nice backpacking tents (Sierra Designs "Clip Flashlight CD") and a number of quite serviceable 2-man A-frame Eureka tents. Also, talk to neighbors or parents of older or former Scouts about gear they may have lying around unused.

What if he decides he doesn't like backpacking?

A youth sized, external frame, pack and youth sized sleeping bag are a good investment that your Scout can continue to use for a good while even if he doesn't wind up liking backpacking. I wish more of the Scouts packed in a backpack for regular trips. They are much more practical than duffle bags, pillows hanging out loose, sleeping bags tied on the side, etc. We camp year-round and a good youth-sized

sleeping bag enables Scouts to go on cold weather trips without discomfort or worry. Additionally, even fall or spring trips can easily have subfreezing weather. A good synthetic bag will be lighter, easier to pack, and more comfortable than the cotton/flannel bags better suited for spend-the-night parties at home. Likewise, boots are sturdy all-round shoes suitable for wet weather and rough terrain found even at state park primitive sites. Sneakers get wet and cold far too easily and offer little foot/ankle protection. Likewise, a good rain suit is an investment in safety and comfort for your Scout even if he's not a backpacker. In short, everything listed here is good for year-round camping on all kinds of Scouting activities – not just backpacking. If your son is comfortable and well prepared for the outdoors, he's have more fun and be more likely to stick with camping and hence with Scouting.

Sleeping Bag:

Size is important for sleeping bags. A bag that is too tall, or too large in the torso, will be cold no matter how expensive or what its temperature rating. Your body simply can't heat up all that free air space. It's better to buy a youth or short sized bag now and then upgrade when he hits a growth spurt in two years. These bags generally accommodate folks up to 5' 6" or 5' 8" in height and of normal proportions. In addition to not being able to stay warm in a regular (6' 0") or long (6' 4") bag warm, that extra length adds weight and bulk that will be a disadvantage year-round for all activities. Tapered bags are better than rectangular bags for this reason. Mummy bags are really ideal because we lose most of our heat through our head. The mummy bag design includes an integral hood that prevents heat loss from the head and shoulder area. When sizing a sleeping bag, think of it more as a loose coat than as the covers on your bed. When you turn at night, the bag turns with you – you don't need/want to be able to turn over inside of the bag. If you can do that, the bag is probably too large for you.

You don't need to buy a +5 degree (F) sleeping bag. A +15 to +25 degree bag is ideal for our winter camping. Colder weather bags are heavier, harder to pack and more expensive. Additionally, consider that you'll have your outer fleece and other warm garments that you can wear in the sleeping bag to increase its temperature range if it's really cold.

Be **sure** to get a synthetic fill bag -- not down and certainly not cotton. Both cotton and down do miserably when wet (kids get wet!) and cotton has a very bad weight to temp ratio (too heavy, not warm enough). Polarguard 3D has been the premier synthetic insulation for a number of years now. It's warmer, lighter and more durable than a lot of the older synthetics like Hollofil, Qualofil, etc. Some bags now feature Primaloft/Microloft/Lite Loft and Termolite/Thermolite Extreme which are a family of "short staple" fibers that come close to matching the insulation of down although not as compressible.

The bags I started my kids out in are no longer sold but the following look reasonable on the REI web site. Also, take a look for a greater variety of similar rated bags at www.campmor.com on the web at slightly better prices if you're willing to buy without touching first.

Kelty Sonora +20 – Regular (6'0", 3#4) \$110:

<http://www.rei.com/online/store/ProductDisplay?storeId=8000&catalogId=40000008000&productId=47857203>

Sierra Designs Wild Bill +20 – Regular (6'0", 3#5) \$99.95:

<http://www.rei.com/online/store/ProductDisplay?storeId=8000&catalogId=40000008000&productId=47855447>

Note: Some manufacturer make 5'6" or 5'8" bags which are ideal for Scouts. They are lighter and warmer than an oversized adult bag for a Scout who is just at 5' or even less.

Rain Suit

In windy rain, you are going to get wet if using a poncho. When we're in the backcountry far from any car or building, getting wet can be deadly in cool weather (hypothermia). Additionally, you can't use a poncho when canoeing or boating or working around water because it would inhibit your ability to swim if you fell in the water. For these reasons, the troop requires rain suits rather than ponchos for most non-summer outings of all kinds. A rain suit will prevent wind-driven evaporative cooling and allow your son to stay warm and safe even if he gets wet (and he will at some point); I consider my rain suit to be as important a part of my cold weather gear as an additional fleece for just this reason. While Gortex (and the other "breathable" fabrics) are great for rain gear, they are expensive. A single-layer Gortex jacket and pants will cost close to \$200 and you can easily spend \$450 for a triple-layer Gortex rain suit. Given this, \$50 for a coated nylon pants and jacket that weighs only 22 ounces total is a good deal. Vinyl and PVC rain suits aren't good – they are too easily torn if light weight and too heavy otherwise. Wal*Mart carries a good set of the coated nylon rain gear but they don't generally have youth sizes in stock. Campmor carries their "Cascade" pants and rain jacket which are light/economical and available in a variety of sizes (<http://www.campmor.com>).

Socks

You need two types of socks, both of synthetic materials (or wool). Cotton socks **will** cause blisters and painful feet. Cotton socks are not acceptable for backpacking trips.

The inner (liner) sock should be a thin, wicking layer of polypropylene or various synthetic or wool blends. These socks are inexpensive and light. For longer trips, I'll take three pair with me and rotate them throughout the trip when my feet get damp or tired. The outer sock should be heavier weight and well padded at the friction points (heel, ball of foot, etc.). Thorlo is probably the most famous maker of these but there are a zillion other acceptable sock including Wigwam, Smart Wool and even good house brands from REI and others. **Be sure to buy and wear your socks (thick outers and liners) when fitting boots.**

Boots:

For new hikers, you don't want/need \$150-200 Gortex lined boots. Both my kids started off with Wal*Mart Brahma-brand boots. I don't know if they still make those but my son still says those were the most comfortable boots he ever had and they were the most economical (about \$25 back then). You want them to be light-weight, moderately flexible with a supportive sole and uppers. Short boots don't provide the needed ankle support and I don't recommend them. Likewise, I don't recommend "trail shoes" (essentially specialized running shoes) for kids. They get wet and your feet get cold. Leather boots (possibly with synthetic upper parts) can be waterproofed inexpensively and will do fine for fast-growing feet. They will outgrow most boots you buy them at age 11 before they can even get them thoroughly broken in. If your child's foot has special fitting requirements, there are a variety of orthotic inserts and fit systems that can adapt regular boots for many wide, narrow, or unusual feet conditions. As for sizing, too large is generally better than too small. Too tight boots are cold in winter because the blood can't circulate. Too tight boots also lead to loss of toe nails and other uncomfortable foot conditions. Still, the feet mustn't slide around in the boots and the foot shouldn't slide forward when descending or you'll wind up jamming your toes against the front of the boots. **Be sure to buy and wear your socks (thick outers and liners) before fitting boots.** Hiking socks can easily add a full size to the needed length and/or width of boots.

Packs:

The key parameters for packs are the frame size and the waist belt size. If the pack is too short/tall, or if the waist belt is too large, the pack will be uncomfortable and your Scout won't like backpacking. An adult pack may only cinch down to 31" -- that's probably bigger than most eleven year olds waist size. .

REI, Dicks and a variety of mail-order shops carry quality youth gear at pretty decent prices. The local places can generally give you better advice on fit since you can try it on before buying it.

For a pack, both my kids started off with a small Kelty youth pack. That same pack isn't made any more but you could look at the Kelty Long Trail Junior -- if your son requires a small frame pack, it's a good short weekend pack at 2050 cu in, light (3#3) and inexpensive (\$89) at REI:

http://www.rei.com/online/store/ProductDisplay?storeId=8000&catalogId=40000008000&productId=47998770&parent_category_rn=4500536

A similar weight (3#8) pack holding 3850 cu in is available by web order from Campmor (JanSport Scout, \$90):

<http://www.campmor.com/webapp/wcs/stores/servlet/ProductDisplay?productId=9084&memberId=12500226>

I don't have any experience with this pack but it looks nice from the description online.

A somewhat larger pack available locally at REI (2900 cubic in's) is the Kelty Yukon Pack - Kids:

http://www.rei.com/online/store/ProductDisplay?storeId=8000&catalogId=40000008000&productId=47883054&parent_category_rn=4500536

It's \$109 and 4#8 with a 22-32" hip measurement which is important since you don't want him to carry the pack on his shoulders. The torso length for this pack is adjustable from 13" to 19" so there's plenty of room to grow.

A pack very similar to what my own kids used is available by web order from Campmor, the Kelty Yukon Youth:

<http://www.campmor.com/webapp/wcs/stores/servlet/ProductDisplay?productId=9117&memberId=12500226>

This pack is only \$90, and weighs in at 4#11 which is a bit heavier and holds 2900 cu in with a 13" to 19" torso length adjustability.

You may well need to try on a pack to be sure about fit. Fitting packs by mail order can be hard. Double check the **shoulder straps** and the **hip straps** to make sure they fit. We always have a scout or two that show up and the hip straps won't tighten enough around their skinny hips. I'd vote for most any Kelty external pack -- I've used Kelty's for most of my adult life -- they're guaranteed for life (they rebuilt my old pack and my daughter's pack for free when we wore out the waist belts after many, many miles). The older kids tend to like internal frame packs -- I have less experience with them but my son uses/likes a big 5000 cu. in. REI Great-Star internal. In any event, you can buy your son a more expensive pack just like he wants if he likes backpacking and stays with it until he passes through his growth spurt. Once he's more full-framed, you can buy whatever he wants/needs and he'll be able to stick with it for a long time. For now, I'd advise sticking with light, economical, simple gear that will be kid-friendly and functional. Be careful of sales creep when you talk to anyone in a store -- "it's only \$25 more" (or, "it's only 8 oz more") is deadly. If you don't need size or a feature now, don't buy for the future. In 2-3 years, he'll want/need something very different most likely and he'll never benefit from the extra weight and cost you went for now!

When buying a pack, consider also buying a fitting pack cover. It's more durable and reliable than a garbage bag and only \$10-25 more. It will help keep all that gear in your nice new pack dry and ready to use when it rains (it will rain).

Tents

Although I didn't list tents as required gear, I'm going to say a bit about them here just because Scouts will lobby hard for their own tent rather than using the troop tents. First, don't buy a single-person tent. They **must** have a buddy when backpacking (exceptions possible for older Scouts who have completed a

major (50+ mile) trek. This buddy rule applies equally for troop outings not involving backpacking. Please don't buy a tent that we then can't let them use! Beyond that, I don't believe in "cheap" tents. If everything else goes wrong with your gear and you can retreat to a warm, dry tent, you'll be fine. If you get wet in the middle of the night and we're a day's walk from the cars, it's going to be tough, painful, and potentially dangerous. The basic A-frame Eureka two-man tents that the troop has work well, are durable and relatively inexpensive, but not very light. Also, the kids don't seem to like them although they are roomy and effective. The troop also has several high-tech backpacking tents, Sierra Designs "Clip Flashlight CD". These tents are **extremely** weather-proof and light (3-4 pounds, depending on ground cloth and stakes). They are much cozier than the Eureka A-frames but that's the price of being light-weight. My son bought and uses this same brand as his personal tent and is very happy with it. About this time of year (fall), they put the last year's models on sale for about \$140 rather than the usual \$169.

Generally, dome and semi-dome tents have more room and a higher roofline but are significantly heavier than the alternatives. The most effective weight/space tradeoffs seem to be for the two-hoop designs. Most of my personal backpacking tents are the two-hoop design and they've been very strong and secure despite heavy use in the worst kinds of weather. I would recommend the two-hoop designs over the dome and semi-dome designs. Weight is the biggest enemy for Scouts enjoying backpacking and if you're going to buy them their own tent, it should be in the 3-4 pound range so that they aren't so burdened carrying their new tent that they don't ever want to go backpacking again!

Stoves

Stoves are another "not required" item (although, obviously some folks have to have them to share). The Scouts will form tenting/food groups of 2-4 Scouts. Generally, one stove is sufficient for 2-3 food groups, depending on group size and "hurry" factors. The lightest and simplest stoves are the propane-butane cartridges with a small burner attaching to the top. These stoves are inexpensive but have three disadvantages: 1) they don't work very well below freezing; 2) you never really know how much fuel is in a leftover cartridge and 3) pot stability on the small stove is only fair (i.e. if you not careful, the food-pot will tip over). Of the liquid fueled stoves, the MSR Whisperlight is a standard – inexpensive and very hardy. Liquid fuels do have to be handled with care and supervision but they are extremely safe if operated properly. These type stoves are heavier than the cartridge stoves but trade that off well by working in cold weather and by allowing careful measurement of fuel based on trip length. The main "disadvantage" of the liquid fuel stoves is that the younger scouts may have a harder time starting them. The younger scouts have a much easier time dealing with the propane-butane cartridge stoves (screw on burner and light). For a short weekend backpack trip, in the spring, summer, & fall, they work fine – and a single bottle will be enough (60 minutes burn time) for few small meals for two scouts. A number of Scouts and leaders have started using alcohol burning stoves but those are trickier to use than the above stoves and don't work as well for beginning backpackers. Save this for your son's second stove after he's got a bit more experience.

Water Purification

Every food group needs some way to purify water in the back country. A good option is iodine tablets sold for about \$5 under the brand name of Potable Aqua. For slightly more, you can get a two-bottle system that includes a neutralizer for the iodine taste (an issue for some folks). Both of these have a shelf life of 6 months to a year after they are opened so be sure to date them so you can discard them before they lose their effectiveness. A better solution is another iodine solution called Polar Pure. Slightly heavier and more expensive (\$10), it's effectively an infinite source of pure water with no shelf-life or "running out" constraints. A newer solution is chlorine-based solutions (similar to commercial water treatment systems). They are sold under trade names like Aqua Mira and Pristine. I switched to a chlorine system years ago and have been very satisfied. EPA recommends chlorine over iodine but either can be

effective if properly used. Two things I do not recommend: water filters (heavy, expensive, bulky) and household bleach (unknown strength).

Water bottles / Hydration packs

Water bottles (at **least** two liters worth) are required for any backcountry trip. Nalgene and Lexan bottle are very durable, inexpensive and much more satisfactory than reusing bottled water bottles, etc. You can purchase hose systems that can be added to the top of a nalgene bottle so they can drink as they hike. Many of the hikers prefer to use a hydration bladder and hose system so that they don't have to open their pack to get at their water while hiking. I also notice that Scout using hydration packs drink more water in the course of the hike which is a very good thing. I use and recommend hydration packs but many folks stick with water bottles – personal preference, I guess.

Flashlight

Something small and light, two-AA battery size, is all that is needed. For only slightly more, you can now get flashlights based on white LEDs which never burn out and which give much improved battery life. LED flashlights are very nice but certainly not required. Just don't bring the big, 5-cell 'D'-battery monster flashlight. It is way too heavy and bulky and simply isn't needed. A headlamp (flashlight mounted to a band over the head) is convenient since it leaves your hand free for cooking or setting up your tent.

Not Needed

Anything you can live without. Also, saws, hatchets, radios, electronic games, etc. All of these things tend to work against proper use of Leave No Trace camping and developing the social and leadership skills that we strive to teach in the camping program.

Resources:

<http://www.campmor.com> – online, discount retailer

<http://www.rei.com> – online version of the REI store in Dunwoody

<http://www.rei-outlet.com> – discount outlet for REI excess merchandise

<http://www.sierratradingpost.com> – online discount retailer

<http://www.northernmountain.com> – online discount retailer

<http://www.dickssportinggoods.com> – online version of the Dick's store near the mall

<http://www.scoutdirect.com> – Discount version of <https://www.alpsmountaineering.com>

Note from Carl Lundstrom: <http://www.scoutdirect.com> was developed by ALPS Mountaineering to sell Scouts backpacking gear direct from their website at 45-60% off retail. I've purchased sleeping bags and tents from them at very good prices, and think the quality is very good. For example currently you can buy a 20 deg mummy bag on sale for \$24 to \$32 – including a compression stuff sack. There's even a bag-pad combo on sale for \$32. These bags are about 15% heavier than the name-brand bags but are also very economical. You can see the specs on all their full lines of equipment at the main site

<http://www.alpsmountaineering.com>. If you want to purchase from ScoutDirect/Alps, leave yourself time to order and ship – they don't ship as quickly as Campmor or REI. Additionally, a number of Scouts and leaders in this year's Philmont backpacking expedition used ALPS gear and were very satisfied. Alps is definitely recommended as a source for backpacking and general Scout camping gear.