

Boy Scout Gear List: New Scouts, Three-Season

New Boy Scouts (and your parents!), take note: going light will leave your patrol leaders in the dust and there will be money left over from your paper route.

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by Doug Prosser | 2005-06-07 03:00:00-06



Forester Pass as seen from the south: the highest point on the Pacific Crest Trail in Sequoia National Park.

Photo credit: Doug Prosser

Introduction

When a boy first joins the Boy Scouts, one of the first questions that comes up for his parents is what backpacking gear to outfit their son with. Naturally, the parents really want to get their kid the "right" gear. But there are differing opinions on what it right. The new Scouts in the troop that I am Assistant Scoutmaster of range in age from 11 to 13 years, in height from 4'0" to 5'10" and in weight from 65 to 180 pounds. These new Scouts all want to be recognized as being able to hike and carry their share of the gear. They can easily lose their self-esteem if they are given a huge, heavy pack to carry and then they can't make it up the first hill they encounter. From my observations, what the boys can carry changes once they have seen a few years of testosterone and perhaps played sports; then it doesn't seem to matter how much weight is in their packs and they usually leave the adults behind on the trail. But when they first become Scouts, it's a different matter. Leather hiking boots, big backpacks, Scout mess kits, heavy sleeping bags, and heavy tents might seem like the "right" gear, but can quickly become a discouraging liability for the new Scout. What I will show you in this article are inexpensive, lightweight options for new additions to the Troop.

Before I go into the gear in detail, I'd like to give you some suggestions of places to look for inexpensive clothing and gear. For clothing, try your town's thrift stores first, then department stores, then sports or outdoor

stores. To find discount gear and clothing online, look at campmor.com, sierratradingpost.com, rei-outlet.com, rei.com, northernmountain.com, and backcountrygear.com, especially at their sale/clearance items.

Context



The author and son, Mike, on top of Forester Pass, August 2001. Doug, Mike, and Troop 257 were on their way from Onion Valley south on the PCT, then out over Mt. Whitney. Mike was 14 years old, a Scout, and on his fourth Sierra hike. He went on to earn his Eagle Scout rank in 2003; he starts at the US Coast Guard Academy in June 2005. They grow up fast!

The gear on the list below was selected with careful attention paid to low weight and low cost as much as possible. The list was compiled for new Boy Scouts (although it will work equally well for anyone who wants to lighten their load but not their wallet) backpacking in three-season, mild conditions.

Backpacking clothing has some unique requirements that must be met to keep the Scouts comfortable and safe. First, the clothing needs to protect them from the elements of sun, wind, and rain. Second, the clothing needs to function equally well in the cold and heat and everything in between. Third, the clothing needs to breathe as the level of activity changes throughout the day. Fourth, the clothing needs to dry in as little time as possible. Fifth, the clothing needs to be as lightweight as functionally possible. And a sixth for Scouts, the clothing needs to be inexpensive.

Technology has changed the face of clothing options from what they were 20 to 40 years ago when everything you wore was wool. Today there are ultralight fabrics that can keep you warm and dry and weigh a fraction of yesteryear's wool options. These new fabrics at times are very expensive, so my recommendations will be aimed at keeping it simple, functional, and cheap. As the boys get older, they may pursue more expensive options, but for our new Scouts the following suggestions will keep them comfortable and safe while not breaking your wallet. Please look in thrift stores, Salvation Army stores, outlet stores, discount web sites, as well as local department and clothing stores for these clothes.

One quick rule for clothing fabrics: NO COTTON! This includes sweat shirts, sweat pants, blue jeans, socks, boxers, briefs, t-shirts, etc. Cotton takes an extremely long time to dry, does not wick moisture away from the body but keeps it next to the skin, and when it is wet or damp from sweat it doesn't provide your Scout with any warmth, thus endangering them just when they need the warmth.

I will focus on three layers of clothing:

1. Base or Wicking Layer - in direct contact with the skin.
2. Insulation Layer - provides warmth when needed.
3. Outer Wear - provides protection from wind and/or rain.

BASE OR WICKING LAYER:

This layer is in direct contact with the skin and is designed to keep the skin dry by moving moisture from the skin out to the surface of the fabric. If perspiration is removed quickly from the skin's surface, outer layers keep you warm more easily. Conversely, if the layer of clothing next to your skin becomes saturated and dries slowly (read - cotton!), your other clothes, however good, have a hard time keeping you warm. Your Scout may find, as I have, that wicking clothing is much more comfortable than cotton not only for backpacking, but also for everyday use.

Most of the base or wicking layer clothes that I mention below can be purchased at sporting goods stores, discount web sites, or department stores.

Shirts

Your Scout should have either short sleeve shirts for hiking temperatures over 50 °F or long sleeve shirts for hiking in temperatures under 50 °F. These shirts are usually styled like a t-shirt. They are made of different types of new fabrics that wick moisture away from the skin. Two of the most common wicking fabrics are Coolmax and Capilene, but there are many others. These shirts are very thin and lightweight. The Scout should usually pack two shirts, one for wearing during the day and one for sleeping in at night.

Boxers/Briefs/Shorts

When hiking, even in colder weather, many Scouts prefer shorts because of the heat that their legs generate. Cotton boxers/briefs trap perspiration and don't allow the skin to dry, which can lead to chaffing. A much better solution is to go to the running or the bathing suit department to purchase your hiking shorts. These shorts are made of materials that dry very quickly while having built-in liners of wicking fabrics that allow your skin to stay dry. By using these shorts, the boys do not need to bring boxers/briefs at all, which is a definite weight savings. Only one pair of shorts is usually required for hikes and remember the shorts double as a swimming/bathing suit. If your Scout decides to use boxers/briefs, the ones I would recommend are Patagonia's Capilene SW Boxers, \$29.00, or Capilene LW Briefs, \$17.00. I have yet to wear out a pair of these boxers after years of daily wear. Other companies and stores do have wicking underwear, but you will have to search a bit harder for them.

Socks

All new Scouts have lots of cotton socks at home. Guess what sock material causes the most blisters because it cannot transport water away from the skin? You're learning, cotton. Guess what sock material takes 12 to 24 hours to dry if it gets wet? Right again, cotton. So what is a parent supposed to do? Go to the running or outdoor store and purchase socks made out of wicking materials such as Coolmax or merino wool. With socks made out of these materials, you only have to wear a single layer instead of a liner and regular layer to prevent

blisters. The socks may come in different thicknesses. Choose thin for hiking in the hot desert, and thicker for colder weather. I prefer to have two pairs of hiking socks that I can switch off and on throughout the day. Since I sleep cold and my feet get cold easily, I sleep with a thick pair of socks on to keep my toes toasty warm. I only carry three pairs of socks whether going on a weekend hike or a 14-day hike.

Sleepwear

The sleepwear you choose will depend on if your son sleeps hot or cold, how warm the sleeping bag is, and what the outside temperature is. I sleep cold so I tend to sleep in a long sleeve wicking t-shirt, light weight long fleece pants, and warm socks, while my son, who sleeps warm, is in boxers only. One additional sleeping item is a thin wool or fleece watch cap or hat. Since a lot of your body heat is lost through your head, a cap will keep your whole body much warmer.

INSULATION LAYER:

This layer is basically designed to keep you warm, but it also has the task of dealing with the moisture brought up from the base or wicking layer. Far and away the most common fabric that is used is fleece. Technology has also developed some various fabrics that are a cross between an insulation layer and an outer layer that handle moisture exceedingly well while providing wind and mild rain protection.

Two different situations are usually presented to backpackers that concern their insulation layer. The first is that when you are hiking hard, the requirements for the insulation layer is vastly different than the second situation when you are standing around camp just trying to stay warm, especially after sunset or in the early morning prior to sunrise.

When hiking hard, your body is generating a lot of sweat. This moisture must be removed from your skin by a base or wicking layer and transported outward where it can evaporate without taking lots of body heat with it. If you were wearing a plastic bag that did not breath or allow moisture to pass through all your clothing, inner layers would soon be so full of moisture they would be completely soaked. Our goal is to allow this moisture to pass through and evaporate while maintaining your core warmth. While hiking, you really do not need to wear much in the way of insulation layers because your muscles are generating so much heat your body core doesn't need to conserve heat; it needs to get rid of it. That is why you may see people hiking in the snow with t-shirts and shorts. However, when you stop hiking, within 5 minutes your core temperature will start dropping. This is when you will require some additional insulation and even more will be needed when stopped for prolonged periods.

As can be seen, the requirements for the insulation layer change as your activities do. The easiest way to deal with this is to provide multiple layers. These layers can be different thicknesses and/or different materials. A thin fleece top will provide enough warmth while hiking in cold weather or when stopped for a short period in warmer weather. A heavier fleece vest/shirt may be needed when stopped for a prolonged period. A jacket (down or synthetic insulation) will be needed for camp wear after dark or in the early morning. Instead of packing multiple jackets of different thicknesses, we tend to wear multiple thinner layers. This means that at night or in the early morning your Scout is wearing all the hiking clothes he brought with him. This is a great way to save weight, don't pack any more clothing than can be worn at one time.

For insulation while hiking, I bring a light fleece (100 weight) or a nylon thinly insulated windbreaker to put over my shirt or to wear when I have a short stop. When I am done hiking for the day, I immediately get out of my

hiking clothes since they are damp and get into my dry sleep wear (warm socks, light weight fleece pants, wicking long sleeve t-shirt). I add my lightweight fleece top or windbreaker to this. As it gets colder, I add a down vest, wool hat, fleece gloves, then eventually I add my rain jacket and rain pants if I am still not warm enough. If I am still cold, I get in my sleeping bag with some or all of these clothes on.

Your insulation clothing choices need to be lightweight while providing maximal warmth. Please remember the more pockets, hoods, or zippers, the heavier the garment will be. Weigh your choices on a scale prior to packing, it will change your opinion on what to bring. You will find that one pair of fleece pants will weigh twice what another does without providing additional warmth (thickness or loft equals warmth).

1. Thin shirts/jackets/pants:

- a. 100 weight fleece (Polartec, Microfleece, Expedition weight underwear): these can be purchased for under \$20 - or a whole lot more. These are always on sale at some web location. Do not pay full retail.
- b. Insulated windbreakers (water resistant/slight insulation): can be purchased for \$60-\$100 or for a few dollars at the thrift store. An example is the Marmot DriClimate windshirt, which is lined with a very thin layer of tricot. Make sure the insulation does not contain cotton.

2. Thicker insulated jackets/vests/pants:

- a. 200-300 weight fleece (heavier than down or synthetic insulation but usually the cheapest choice).
- b. Down insulation (lightest, warmest, most expensive - usually): try google.com/froogle, type "down vests" and you will get a wide range of prices.
- c. Synthetic fiber insulation (weight and cost are in-between fleece and down).

OUTER WEAR AND RAINWEAR:

This layer is designed to protect you from wind, rain, and snow. This layer is sometimes called your shell garment. There are two main types of outerwear: ones that are windproof but not waterproof, and ones that are both windproof and waterproof.

Windproof but NOT Waterproof

Every Scout needs an outer layer to block the wind. If the wind can blow through your insulation layers unobstructed, you can lose a lot of body heat. Another way to think about this is if you have a good windproof layer, you need less insulation - less weight to carry - to stay warm. This layer in its simplest and lightest form is a very light nylon jacket and pants without many pockets or other bells and whistles. They are sometimes referred to as windbreakers or wind shirts. Ross discount department stores, for example, carry many different windbreakers that are either lined or unlined that are very inexpensive. The unlined are lighter in weight, the lined are warmer, your choice. Just make sure there is no cotton in the lining.

Wind blocking clothing will really be appreciated when hiking in a buggy area since it also helps block mosquitoes. Some manufacturers are modifying the wind blocking fabrics to make them water resistant. For a mild rain shower, a water resistant jacket is the only jacket that you will need to wear while hiking.

Windproof and Waterproof

The cheapest and lightest windproof and waterproof rainwear is a large plastic trash bag. That is one reason we want the Scouts to bring two or three emergency trash bags on each hike. A trash bag will keep rain out but also will hold moisture in so the Scout may become drenched from sweat. Many modern fabrics are waterproof and breathable and keep rain out, and also allow some moisture vapor from perspiration out. The most renowned of these fabrics is Gore-Tex. There are literally hundreds of these types of fabrics now. These fabrics tend to be very expensive and somewhat heavy. The place where Gore-Tex really shines is winter backpacking in the snow and ice. These jackets and pants really do a good job of keeping you dry but cost multiple hundreds of dollars. Because of the high costs, I do not recommend these jackets for new Scouts. Once they have been backpacking for a few years and have stopped growing, this may be an option. The Gore-Tex type jackets can usually be found on sale at numerous web sites.

A less expensive option is a Frogg Toggs rain suit for \$60. This rain suit weighs about 15-16 ounces and is waterproof and breathable but can tear easily if not treated carefully.

The cheapest rainwear option for new Scouts is the Campmor extra large vinyl poncho for \$5 and 14 ounces, which is hard to beat for cost and durability. A lighter option is the Campmor silnylon Ultralite Poncho/Shelter that costs \$40 and weighs 7 ounces. Either one will work well while also continuing to fit the boy as he grows. The added advantage is that ponchos cover and protect the pack from the rain. Poncho fabric is wind blocking, but ponchos, by design, don't completely block the wind. If you wear a windbreaker jacket and pants under the poncho, this will block the wind while the poncho blocks most of the rain. The poncho can also serve as a ground cloth and, with practice, an overhead shelter.

Footwear

All new Scouts can use the sneakers that they wear for everyday use for backpacking. Since these boys are constantly growing out of shoes, I would not purchase specific shoes for hiking, especially not leather hiking boots. Their current sneakers will do fine as long as they are not completely filled with holes and have some tread left on the bottoms, and are able to be tied tightly. When you look at new sneakers, consider purchasing running, or even better, trail-running shoes instead of items like "skate" shoes.

Sleeping Systems

Getting a good night's sleep is important and you don't need to carry a lot of weight to achieve it. Besides your shelter, you'll need a sleeping bag, a sleeping pad, and a ground cloth. The total weight for this sleep system should be at, or under, 6 pounds. The sleep system will be your most expensive area when it comes to buying gear. However, you should be able to find some very good equipment for under \$250 and have plenty of options well below that.

SLEEPING BAGS:

For most of the camping that my troop does in California (mild conditions), a 30 to 40 °F rated sleeping bag is sufficient. I would not purchase a bag rated lower than 20 °F. If your son sleeps hot, buy a 30-40 °F bag, but if he sleeps cold, then buy the 20 °F bag. (What I do for winter camping is put my 40 °F bag inside my 20 °F bag giving me a very good system to sleep in temperatures below 0 °F.) The lower the temperature rating for the bag, the heavier it will be to carry. The sleeping bag you purchase should ideally weigh less than 3 pounds.

The next decision is whether to use a down or a synthetic fill bag. A down sleeping bag packs much smaller, is lighter, and tends to last longer, but usually costs a lot more and loses more warmth if it is allowed to get wet. I recommend going with a down bag for our boys in southern California since we seldom have to worry about rain getting the bags wet. The smaller packed size of a down bag is a real advantage for the very small boys who are carrying small packs.

Some of the best places to look for these sleeping bags are campmor.com, sierratradingpost.com, and rei-outlet.com. Some examples of sleeping bags that fit the above criteria are:

EXAMPLE SLEEPING BAGS	Size	Price	Weight
Campmor Goose Down 20 °F Mummy Sleeping Bag	Regular	\$110	2 lb 6 oz
Kelty Light Year+25 Sleeping Bag	Regular	\$129	2 lb

SLEEPING PADS:

Sleeping pads are used to provide insulation from the cold ground while also giving you a softer place to sleep. There are two main types of pads: closed cell foam, and self-inflating. The two most popular closed cell foam pads are the Z-rest and the Ridge Rest from Therm-a-Rest with prices under \$35 and weights under 1 pound. The least expensive closed cell foam pads are the baby blue pads 3/8 inches thick that cost less than \$10 and weigh 8 ounces for a full-length pad. The Campmor pad is called Pack-Lite Closed Cell Foam Pad. Therm-a-Rest also makes the most popular self-inflating pads with prices from \$50 to well over a \$100 and weights ranging from just under a pound to over 5 pounds. I recommend the closed cell foam pads because they are lighter and less expensive while not being liable to punctures, as are the self-inflating pads. Remember, you are talking about an 11 to 13 year old taking care of this equipment and there are likely to be punctures if using the self-inflating pads. Another factor to consider is the weight of the Scout. A 65-pound Scout will not need as much padding as a 200-pound Scout. Unless you are camping in cold weather, a three-quarter length pad (48-51 inches) weighing 9-11 ounces and costing \$16-30 will be adequate. To save even more weight, most boys do not need a 20-inch width closed cell foam pad so they can cut them down to a narrower width and/or even shorter length to save further weight.

The closed cell foam pad I recommend is the Therm-a-Rest, 48-inch length Ridge Rest closed cell foam pad that weighs 9 ounces and costs about \$16. Another option that is thinner is the Campmor Pack-Lite 72-inch closed cell foam pad at \$8 that can be cut down to fit your Scout.

Shelter Systems

TARPS:

Tarps are a lightweight and inexpensive way to protect you from rain. Tarps come in various materials that range widely in weight. When I was a Boy Scout, we used 10' x 10' tarps made out of canvas that weighed about 10 pounds. Today's Boy Scouts can use tarps made out of silnylon that weigh about a pound and under and cost under \$85 (Campmor 8' x 10' Ultralight Backpacking Tarp, 13 ounces, \$65), or out of spinnaker cloth that require more care than silnylon and cost more, but weigh less than half a pound (Bozeman Mountain

Works Stealth 1 (7' x 9') Catenary Ridgeline Ultralight Backpacking Tarp), or made out of taffeta nylon that weigh about 2 pounds and cost less than \$50. An 8' x 10' tarp will sleep two boys while a 10' x 12' tarp will sleep three boys. Along with the tarp, the boys will need eight to ten tent stakes and 25-50 feet of nylon line/rope to set up the tarp. Aluminum or titanium tent stakes are the best and the nylon line/rope usually does not need to be heavier than 1/8-inch diameter. Also, because the tarp does not have a bottom, a ground cloth is needed to sleep on. This prevents rain or ground condensation from getting your sleeping bag wet. The ground cloth can be any waterproof material from plastic painters drop cloths to silnylon. It needs to be roughly 7' x 3-4'. You want to keep this light, do not use a very heavy plastic, and realize that you will have to replace the plastic every few years as it will get holes in it. Buy the plastic ground cloth at Home Depot if you do not have any around the house.

The example sleep system below consists of a down sleeping bag, a closed cell foam pad, tarp, tent stakes, rope, and ground pad, weighs approximately 5 pounds, and costs \$205. This is some very good gear that will last your Scout well past their 18th birthday.

EXAMPLE SLEEP SYSTEM	Size	Price	Weight
Campmor Goose Down 20 °F Mummy Sleeping Bag	Regular	\$110	2 lb 6 oz
Therm-a-Rest Ridge Rest Closed-cell Foam Pad	3/4 length	\$16	9 oz
Ultralight Backpacking Tarp	8' x 10'	\$65	13 oz
The North Face V Stake	7 in, 10 pack	\$8	6 oz
Nylon Backpacker Rope Black		\$4	6 oz
Home Depot Nylon Drop Cloth		\$2	3 oz

Packing Systems

BACKPACKS:

Note: rei.com offers a lot of advice on different pieces of gear. Simply go to their site and click on Expert Advice. (To specifically understand torso length and fitting backpacks see [torso length](#).)

This topic may be the easiest for me to write about since I have gone from a 9 pound, \$400 backpack to a 15 ounce, \$75 sack with shoulder and waist straps. Please pay attention to what the backpack weighs empty - weigh it in the store. I can get all the gear mentioned above for our sleep system into my 15 ounce pack and when packed, it will weigh less than my old 9 pound pack empty. The pack is an item that you may have to replace as your Scout grows. For young, small Scouts a youth sized backpack makes the most sense. (Example: Kelty Long Trail Junior, torso length 12-17 inches, 3 pounds, 7 ounces at \$50.) It will be small enough for their body frame size and it can't be loaded too full as to be heavier than they can carry. Once they hit their growth spurt, a full sized backpack will be needed. There are multiple backpacks that can be adjusted over a growth range once they are out of the youth sized packs. There are some packs that come in small, medium, and large sizes. The size you choose depends on their torso length.

There are two main types of backpacks, external frame and internal frame. For Scouts, it does not matter which one is used. What I would suggest is borrowing or renting different types of backpacks to see which your Scout prefers. Many troops have multiple packs available for use or you can see your local outdoor store to see if they rent gear. Keep in mind when shopping that most Scouts will want the type of pack that everyone else in the troop is using. The size of the internal frame packs should be no more than 4,000 to 5,000 cubic inches for the type of trips most Scouts go on. Try to keep the weight below 4 to 5 pounds. The costs can range greatly from \$50 to multiple hundred of dollars. I would not spend over \$200, but you should be able to spend under \$150 and get an excellent pack.

Buying the right backpack requires a store that has a good selection and knowledgeable sales people to fit them. When in the store, load the backpack with 20-40 pounds of weight and have your Scout wear it in the store to see how it feels on his body. If you already have purchased other gear, take it in a box to the store and pack the backpack with the gear and have your son try it on. Remember, he will be wearing that pack and gear for up to 6-8 hours some days so make 100 percent sure it is comfortable. Also, check out the discount web sites such as campmor.com because you can find some tremendous savings on packs, especially last year's models.

EXAMPLE PACKS	Size (torso length, in)	Volume (ci)	Price	Weight
Granite Gear Virga Ultralight backpack	14-18	3,200	\$100	1 lb 5 oz
Kelty Yukon 3500 external frame backpack	15-21	3,500	\$65	4 lb 12 oz
Kelty 4500 Coyote internal frame backpack	13-19	4,500	\$90	4 lb 3 oz
Kelty Long Trail Junior backpack	12-17	2,300	\$50	3 lb 7 oz
Gossamer Gear G4 backpack	20-24	4,600	\$85	16 oz
ULA P-1 backpack	S: 15-17 in, M: 18-20 in, L: 21-23 in, XL: 23+ in	4,250	\$125	24 oz

Cooking and Water Systems

COOKWARE:

This is one area that you should make as simple as possible. The Scout needs one pot to cook in. This pot should be lightweight and hold at least 1 quart/liter. Aluminum foil can be used as a lid if the pot does not have one. The Scout then needs something to eat and drink out of. A plastic margarine container works really well as a dish and an 8-12 fluid ounce plastic cup will hold cold as well as hot liquids. You have these items around the house. A single Lexan spoon will be the only utensil he needs to eat with, keep the fork and knife at home. If he needs a knife, use a pocketknife. One other item we routinely use while cooking is a bandana. This works really well grabbing hot pots or wiping off our hands.

BACKPACKING STOVES:

Do not bother to buy any backpacking stoves because the troop probably has multiple stoves for the to boys use. Please see the quartermaster to check them out. If you have to get a stove for young Scouts, stay away from white gas and alcohol stoves and instead look at Esbit solid fuel tabs or butane/propane fuel canister stoves.

WATER PURIFICATION:

Philmont Scout Ranch traditionally uses the Polar Pure Iodine Crystal Kit, \$10, for water purification. One bottle of this should last your Scout the entire time he is in Scouting. Polar Pure has one really big advantage with new Scouts in that you can tell if it was added to the water (iodine color), as opposed to clear Aqua Mira. So often they can't remember if they treated the water or not and the color of the water is the surest clue. The Troop will teach him how to use this as well as other methods of water purification. Polar Pure can be found at most backpacking stores or at your local Scout store. This can be a multi-use item in that the iodine will sterilize cuts and scrapes if you need an antimicrobial solution.

WATER BOTTLES:

This is an item that you may have around the house. A wide mouth 1-quart Gatorade bottle or a 2-liter soda bottle will work well. Just clean them out well before and after each hike, or just get new ones after each hike. There are many different types of backpacking water bottles you can purchase, but the recycled bottles work well and cost nothing. For most of your Scout's hiking, he will not need to carry more than 2-3 quarts of water at a time, but he will need containers that are large enough to hold 3 quarts of water or more for the hot summers. As the boys become more experienced, they may start wanting hydration systems like a Camelbak. These systems cost much more than empty recyclable bottles but will give the Scout easier access to water encouraging him to drink more often. These systems do not need to be purchased for new Scouts, but can be purchased for experienced Scouts. These hydration systems tend to get holes in them when in the hands of careless boys, so wait till they are a bit older and more responsible to buy them for your Scout.

Miscellaneous

FLASHLIGHT:

With flashlights, the smaller and lighter, the better. Initially, use something you have around the house. Later on, your son will want to check out items like headlamps or Photon lights. The new technology uses LED lights, which allows the bulbs and batteries to last an extremely long time, so when looking for new flashlights look first at those with LED lights. A good way to carry their LED light and knife is on a lanyard around the Scout's neck. This will not prevent the lights from being lost, but it does help.

KNIFE:

For knives, like flashlights, smaller and lighter is better. The only types of knives my Troop allows are folding and/or multi-tool knives. We do not allow straight knives that require sheaths. About the only time the boys use a knife is for cutting rope or when cooking. The Wenger Esquire Swiss Knife is a 1-2 ounce knife that meets these requirements.

COMPASS:

Everyone should be carrying a compass; it is one of the 10 essentials. A beginner's compass costing \$10 to \$15 is adequate to start with. If the boys get very advanced, they will tell you what they need. The compasses last nearly forever, I still have my beginners compass from the 1960's and my boys used it too. These can be found at all backpacking stores or at your Scout store.

TOILETRIES AND MISCELLANEOUS:

The common items - not listed in order of importance - are tooth paste and tooth brush, dental floss, small soap and bandana to dry off with, toilet paper in waterproof zip-lock bag, hand sanitizer, sunscreen, mosquito head net, very basic first aid kit (Band-Aids, Neosporin ointment in a small tube, moleskin), a very basic repair kit (duct tape - 2 feet rolled around something - and a sewing kit from a hotel), extra batteries for flashlight, a lighter and/or waterproof matches.

Conclusion

Technology has come a long way in providing today's Scouts with many lightweight options for gear and clothing. The information above and the gear checklist that follows will help the Boy Scout that is new to the Troop (and his parents) select gear that will keep him safe and comfortable and that he will be capable of carrying without wearing out.

Some examples of brands and models/styles are listed below for reference only. They neither represent an endorsement of that particular product nor a suggestion that the product listed is the best choice in the context of any particular situation.

CLOTHING WORN WHILE HIKING						
FUNCTION	STYLE/Rationale	EXAMPLE	Price	Ounces	Grams	
hat with brim	wide-brimmed hat	least expensive one you can find	\$8	4.0	113	
hiking shirt	lightweight nylon short or long sleeved SPF 30+ if possible	least expensive one you can find	\$18	8.0	227	
underwear	none or synthetic briefs	least expensive one you can find	n/a	n/a	n/a	
hiking shorts	nylon, quick drying, built-in briefs	thrift store/department store	\$4	9.0	255	
hiking socks	lightweight merino wool or Coolmax trail running socks	Thorlo Lite Running Mini-crew Socks	\$10	2.0	57	

hiking shoes	breathable, lightweight trail running shoes	whatever is on sale and fits	\$50	32.0	907
OTHER ITEMS WORN OR CARRIED					
FUNCTION	STYLE/Rationale	EXAMPLE	Price	Ounces	Grams
bandana	cotton	Survival Bandana	\$4	0.8	23
light	micro light (LED)	Princeton Tec Eclipse LED Clip Light	\$10	1.0	28
whistle	pealess whistle	ACR Emergency Whistle	\$3	0.2	6
knife	lightweight small blade knife	Wenger Esquire Swiss knife	\$8	1.0	28
compass	simple, inexpensive	Silva Polaris Type 7 Compass	\$10	1.0	28
watch	simple, waterproof is nice feature	use what scout has	\$0	1.0	28
neck cord	nylon line - holds light, whistle, knife, compass	Kelty Triptease line reflects light at night, easier to find	\$0	0.0	0
lighter	small propane lighter, without child locks	cheapest on the market	\$1	0.5	14
OTHER CLOTHING					
FUNCTION	STYLE/Rationale	EXAMPLE	Price	Ounces	Grams
wind shirt	thin, nylon, lightly insulated windbreaker	thrift store/department store	\$3	10.0	284
wind pants	thin, nylon, lightly insulated wind pants	thrift store/department store	\$3	10.0	284
rain poncho	waterproof, covers backpack, doubles as ground cloth	Campmor extra large vinyl poncho	\$5	14.0	397
insulation layer	down/fleece vest or jacket	thrift store/department store	\$10	16.0	454
warm hat	wool or fleece beanie/watch cap	Campmor Wigwam Thermostat Cap	\$9	2.5	71
sleep shirt	nylon short or long sleeve t-shirt	Campmor Duofold High Performance Series Long Sleeve shirt	\$8	7.0	199
extra hiking socks	lightweight merino wool or Coolmax trail running socks	Thorlo Lite Running Mini-crew Socks	\$10	2.0	57
SLEEP SYSTEMS					
FUNCTION	STYLE/Rationale	EXAMPLE	Price	Ounces	Grams

overhead shelter	silnylon tarp, two boy tarp (split between two boys)	Campmor 8' x 10' Ultralight Backpacking Tarp (13oz/2)	\$65	6.5	184
tent stakes	aluminum (split between two boys)	Campmor The North Face 7 inch V-Stake - 10 Pack (6oz/2)	\$8	3.0	85
guylines	50 feet nylon rope, 1/8 inch (split between two boys)	Nylon Backpacker Rope 1/8 inch, 50 ft (4oz/2)	\$4	2.0	57
sleeping bag	least expensive down bag 20-40 degree rated	Campmor Goose down 20 degree Mummy sleeping bag regular	\$110	36.0	1021
sleeping pad	closed cell foam cut down to size of scout	Therm-a-Rest Ridge Rest 3/4 length closed cell pad cut down	\$16	9.0	255

PACKING

FUNCTION	STYLE/Rationale	EXAMPLE	Price	Ounces	Grams
backpack	torso length 12-15 inches for small young scouts	Kelty Long Trail Junior Pack, torso length 12-17, 2300 ci	\$50	55.0	1559
waterproof liner	trash bag to protect clothing from water, and emergency use	trash compactor bag plus two extra trash bags	\$1	1.0	28

COOKING AND WATER

FUNCTION	STYLE/Rationale	EXAMPLE	Price	Ounces	Grams
stove+windscreen	young scouts do not carry to keep weight low		n/a	n/a	n/a
cookpot	young scouts do not carry to keep weight low		n/a	n/a	n/a
water treatment	young scouts do not carry to keep weight low	once young Scouts are trained, they carry their own bottle of Polar Pure	n/a	n/a	n/a
utensil	spoon	Lexan soup spoon	\$1	0.3	9
dish	plastic margarine container, small	find in house	n/a	0.3	9
cup	plastic 8-12 oz cup able to take boiling water	find in house	n/a	0.3	9
water bottles 3-4L	1 L easily accessible	1 L Aqua Fina water bottle with Gatorade sport cap	n/a	1.7	48
	two, 1.5 L hard sided	two, 1.5 L Aqua Fina water bottles	n/a	4.2	119

OTHER ESSENTIALS

FUNCTION	STYLE/Rationale	EXAMPLE	Price	Ounces	Grams
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maps	printed from computer	TOPO Program troop has or troop map collection	n/a	1.0	28
first aid	minor wound care	assorted wound and blister care items, antimicrobial ointment	\$5	2.0	57
hand sanitizer	2oz bottle: pre-cooking/eating & post-bathroom	least expensive available	\$1	3.0	85
toilet paper	non-scented toilet paper	small amount in plastic zip-lock bag	n/a	2.0	57
personal hygiene	teeth and body cleaning kit	small toothbrush, small toothpaste, small soap in zipper lock bags	n/a	2.0	57
sunscreen	SPF 30 or higher	small tube or stick	\$5	1.0	28
bug barrier	head net	Campmor Backpacker no-see-um Head net	\$5	0.5	14
CONSUMABLES					
FUNCTION	STYLE/Rationale	EXAMPLE	Price	Ounces	Grams
fuel	young scouts do not carry to keep pack weight down		n/a	n/a	n/a
food	lunch Saturday and Sunday, young scouts only carry their own lunch	tuna fish and crackers, dried fruit, cookies	\$5	16.0	454
water	average carried - 1.5 liters	1 L full + 1.5 L bottle partially full; 1.5 L bottle empty	n/a	50.0	1418

WEIGHT SUMMARY		lbs	kg
(1) Total Weight Worn or Carried		3.8	1.7
(2) Total Base Weight in Pack		12.0	5.5
(3) Total Weight of Consumables		4.1	1.9
(4) Total Initial Pack Weight (2) + (3)		16.1	7.3
(5) Full Skin Out Weight (1) + (2) + (3)		19.9	9.0
COST SUMMARY			
(1) Total Cost of Gear		\$307	
(2) Total Cost of Clothing		\$138	
(3) Total Cost (1)+(2)		\$443	



Doug Prosser is an Assistant Scoutmaster for Troop 257 in the Ventura County Council, California with 10 years experience. He lives in Camarillo, which is located on the coast in southern California between Santa Barbara and Los Angeles. He has participated in numerous hikes in the local mountains and has planned many treks into the High Sierras for his Troop. He attended Philmont Scout Ranch as a scout and as a leader. He started out with 50+ pound packs and continues to lighten his load, always looking for a better way of backpacking. His friends have dubbed his garage "Doug's Camping World." Doug has a strong interest in teaching both kids and adults how to enjoy backpacking. He continues to train and gear up for an extended trek on the Pacific Crest Trail within the next few years. Doug can be contacted at DougProsser@verizon.net