

What a Beginner Needs for Backpacking: Part 1

The Lightweight Lesson, Essentials, Backpack, Sleeping Bag and Pad, Personal Kit. Basic training for the beginner and/or young backpacker, with a focus on Scouts.

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by Tad Englund | 2012-02-14 00:10:00-07



There are lighter options that would make this hike a lot easier. Hyas Lake, Washington

Introduction

Most Scout leaders give the Scouts a pack list or checklist to be used for an outing. I had developed a checklist that I thought covered everything needed, but was stripped down enough that the boys were not carrying more than they should, given their own weight and build. I still use this checklist today. Well, checklists are only so good.

When I was a new Scoutmaster, we had planned a November overnight outing to a rustic cabin at Camp Parsons, a Boy Scout camp on Hood Canal in Washington State. It was to be a diversion from our customary backpacking outings. The group was small and the cabin was less than a quarter mile walk from the cars, so we didn't worry about a pack check. This was the first outing for one of the boys, and while the three bags he pulled out of the vehicle when we arrived caught my attention, the other boys helped him carry them to the cabin, so I wasn't too worried.

When it came time to unpack and lay out the sleeping bags, I found out what was in his three duffels. His dear mother had used "the checklist" to help him get ready, and though everyone had used the same list, he had far more than the others. His footwear alone included regular sneakers (on his feet), rubber boots (for the beach?), new hiking boots, and moon boots worthy of *Napoleon Dynamite*. When he pulled out a new cheap plastic tent for emergency shelter, despite the fact that we were staying in a cabin, it was hard not to laugh. A sitcom couldn't have written a script any better than the entertainment this poor boy provided for us two adults that night. It was not his fault - his mother was just following the "checklist."

The Lightweight Lesson

We didn't want this scenario to happen on a backpacking trip; the experienced Scouts in the troop had already been well trained in lightweight backpacking, but we needed to educate all the new Scouts (and especially their parents) about each item on the checklist: why it was on the list and what was appropriate to bring for backpacking. I put together a program called **What a Scout Needs**. We scheduled a presentation and invited both existing and upcoming troop members and their parents. I put together four options a Scout could use and laid them out on the floor:

1. A heavy (or average, for most Scouts/adults) option, 35+ pounds
2. A mid-range option, around 25 pounds
3. A lightweight option, around 16 pounds
4. Ultra-lightweight option, around 8 pounds. This was for demonstration and would only work when a Scout acquired the necessary backpacking skills to allow for such light weights.



All are wearing school clothes - they just changed their shirts. Tripod Flat, Washington.

I helped keep the Scouts and parents focused on the lightweight theme by taking a few minutes at each quarterly Court of Honor to present a lightweight topic, showing the normal option and the lightweight option. For repackaging, I showed a Costco-sized sunscreen bottle and the same product repackaged into a smaller container, for example. With this training, most Scouts attended outings with a full pack weight of around 16 pounds, including consumables and troop/patrol gear.

Though I'm no longer Scout Master, I still help with the troop. In March 2011, while teaching the Scouts how to build igloos on Mt. Rainier, I went to move a new Scout's pack. It weighed a ton! I asked what he had in there?! His answer: "The stuff on the checklist." They were still using my old checklist, but without the training, it wasn't very helpful. A week later, a dad approached me say that his son was about to join the troop, and asked if I would provide some direction on what both of them needed. These and other events were the impetus for these articles (Part I and Part II) defining what an item "means" when it is on the checklist.

Every parent wants the right gear for their child. You may find great equipment for a good price, but all that effort could be wasted with a poor purchase.

[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 any Scout or Adult, but especially a new Scout.](#) - Doug Prosser

The big question is, "What is the right equipment?" And just as important, "Can I trust the advice I get at the store?" These articles lay out what most Scouts really need, and how to provide such items in a lightweight style. The advice you are given in-store or by "old school" adult Scouters often doesn't take weight into account. Be informed about your choices so that you needn't simply put all your trust in whomever is behind the counter at your local gear store. Adult Scouters often have a wealth of knowledge, but their gear advice may be stuck in the Scouting era they grew up in, and, consequently, can be heavy or over-built for you or your Scout.

Careful with Weight Limits

Another issue is that 11- and 12-year-old Scouts come in all sizes. At age 11, one of my sons was about 85 pounds and 5'3" while another was 140 pounds and 5'6" at the same age (with the same parents - don't ask me how!). The clothing and pack sizes between the boys was different, but the weight they carried should be about the same. You couldn't expect my larger son to carry 25% of his body weight (see 25% rule below): that would have him carrying 35 pounds and his brother carrying 21 pounds! Though he was bigger, he was no **stronger** than his 85-pound brother at that same age. Size doesn't equal strength. The larger boys are usually simply small boys in a big body and have no more muscle than the smaller boys, though, of course this changes with age. Please be careful overloading the larger boys, even though they think they can do it. Carrying as little weight as possible works for every size body.



Proud of their new "hood." Igloo building, Mt. Rainier.

Please keep in mind as you assemble the gear for your Scout that their total pack weight should be no more than 25% of their body weight: this is the 25% rule. If they are 80 pounds, their fully loaded pack (including food, water, and troop gear) cannot be more than 20 pounds. We do not allow a Scout to carry more than 25%, and we actively encourage them to try for 20% or less. This weight limit should be part of every decision when purchasing a piece of equipment.

Lightweight backpacking is hiking and camping with everything needed to be safe, comfortable, and well fed while carrying a very small and lightweight backpack. - Don Ladigan, Lighten Up.

The Checklist

The information in these articles supplements the Three-Season Checklist I've already mentioned. This checklist is exactly what I hand out to Scouts and parents in preparation for a trip.

Pack List for Overnight/Multi-day - Semi Lightweight		
Worn Clothing:	What to Pack:	Kitchen:
Pants (no cotton if possible)	Sleeping bag (in plastic-lined stuff sack)	Freezer bag cozie
Wool blend socks	Sleeping pad - open or closed cell	Cup and spoon (minimal)
Hiking/running shoes	Ground sheet	Biodegradable soap (small amount)
Long sleeve shirt	Water bottle - full! (1 liter, max) see hydration	
		Misc. (Optional): Remember to keep weight down!!
Hiking Essentials, Packed as a Kit:	Personal:	Fishing rod and reel w/ lures
Navigation (map and compass)	Toothbrush and paste (small)	Hiking poles or staff
Sun protection (lip balm, sunscreen [small amount], sunglasses)	Towel (very small)	Baseball cap
Insulation poncho or rain suit (see Clothing Systems in Part II)	Lightweight trowel (for catholes), or skip and use stick/tent stake	Camera (lightweight and small)
Illumination (flashlight/headlamp)	Medicines (Do not leave any prescriptions at home! This is not a time to try to go without!)	Small Scriptures or copy of pages you are reading (very lightweight!)
First aid kit (5 oz max)		Gaiters
Fire (fire-starter and matches)	Packed Clothing: Lightweight!	
Repair kit and tools (including small knife)	<i>Base Layer (lightweight)</i>	Food:
Nutrition (see extra food)	Long underwear tops and bottoms in light or midweight. NO COTTON.	Snack food - trail mix, candy (minimal if any, please!)
Hydration (extra water, 1 liter max) and purification tablets (lightweight)	Wool or wool blend socks (only one extra pair)	Breakfast - Patrol Assignment
Emergency shelter (troop tent?)	<i>Insulating Layer (lightweight)</i>	Lunch - Patrol Assignment
Whistle	Extra shirt (no cotton)	Dinner - Patrol Assignment
Toilet paper (very little)	Fleece sweater or sweatshirt (no cotton)	
Garbage bag - large	Wind shirt (6 oz +/-)	Shared Troop Gear:
Duct tape (2 ft max)	<i>Protective Layer (lightweight)</i>	Water filter/purifier
Fleece or wool hat	Shell jacket (rain) - important!	Tent w/ground sheet
Bandana (yes, it has many uses)	Wool/fleece mittens/gloves	Stove and fuel

Because gear and technology change so rapidly, I hesitate recommending anything specifically, except for those rare items that have stood the test of time and are likely to be readily available no matter when. I do not directly endorse any products, named or not, and I make no claims whatsoever - suggestions only. Though I've tried to keep this as general as possible for a wide readership, some suggestions are more specific to the types of trips MY Scout group takes - your needs may vary dependent upon the troop size, outing length, destination, etc.

Items to Show Up In

- Pants - Hiking pants. No cotton jeans. See Pants in Part II, Clothing section.
- Socks - No holes.
- Shoes - Sneakers. Hiking boots are usually unnecessary. See Footwear in Part II for more information.
- Shirt - A non-cotton troop or patrol t-shirt works well. Please do not wear the Scout uniform shirt; the patches, pockets, pins, emblems, and shoulder epaulets are not conducive to hiking with a backpack and thus should be avoided. See Base Layer and Insulating Layer in Part II for more information.



Packing is easy when you don't carry more than you need. Cowboy camping in the desert, Dusty Lake Washington.

Essential Hiking Gear

These essentials should be carried on every outing (list obtained from [Seattle Mountaineers](#)). All of the essentials (except for the garbage bag, water bottle, and extra clothing), should fit into a small ditty bag; mine is about the size of a grapefruit.

1. Navigation:

- o Maps - if not provided by the troop, get either a Greentrails map or a USGS 1:24,000 scale of the area you are hiking
- o Compass with adjustable declination - Affordable suggestions: Suunto M-2D, Burton8010G, Suunto M-3D (I carry this one). Don't be tempted to purchase a cheap one; a good compass will last a long time. Sighting mirrors are usually unnecessary, though clerks or Scouters often push them.

2. Sun Protection:

- o Sunscreen - repackaged in a small dropper bottle (an eye dropper bottle or similar).
- o Sunglasses - absolutely necessary. Go light and cheap. Fashion is not an issue, there is no one out there to impress.

3. Insulation: extra clothing. See Clothing Systems in Part II. The Scouts will not need more than what they are wearing and the warmer insulation layers that they will be carrying. For day hikes, adjust (that is, bring less) accordingly.

4. Illumination: LED headlamp/flashlight. With headlamps/flashlights, the smaller and lighter, the better. I suggest an LED headlamp (hands-free and easy) that won't turn on easily inside a pack. Do not pack extra batteries - LEDs last a long time and have long battery life. If the batteries are old or you are going on an extended outing, put fresh batteries in before a trip and skip carrying extras.

5. First Aid Supplies: Everything together should weigh no more than 5 ounces, in one small Ziploc. The Scouts should be trained on how to use what they are carrying and what nature provides to augment their small kit. To plan for every possible emergency, one would need to bring an entire emergency room. Knowledge is the most important thing we carry.

- o A few Band-Aids in various sizes
- o 2 to 4 butterfly bandages or Steri-strips
- o 4-6 ibuprofen
- o 2-4 Immodium
- o 2 3x3 or 4x4 gauze pads
- o a small piece of moleskin and a small amount of medical tape, rolled on to a piece of plastic straw
- o Medications: An outing is not the time to "see how it goes" and stop taking necessary medications.

6. Fire:

- o Matches - a small amount of regular matches in a Ziploc is enough to start a fire. About five REI Stormproof matches in a Ziploc are also handy in case of emergency.
- o Lighter - Mini Bic only.
- o Firestarter - a must, but the best are homemade.

- Cotton balls coated in Vaseline, carried in an old film canister. Half of a cotton ball will burn for 3-5 minutes.
- Dryer lint works great and is the cheapest, with an unlimited supply. Carry a few loads' worth in a Ziploc.
- The only commercial products I've found worth the money are Wetfire and Spark-Lite Tinderquick, but they are hard to find. NO: Magnesium firestarting tool. They burn at 5400F, but only for about two seconds, and they ruin knife blades.
- o Flint sticks - they come in all sizes and are great if you know how to use them, but they are not worth much if you don't know how to work one. IF you purchase, buy the lightest available and practice at home before bringing it.
- o Waterproof container- All fire stuff should be put in a lightweight waterproof container, like a Ziploc bag. NO: The small orange container with the compass on top is worthless. They are heavy for what you get, the compass is inaccurate, and I dare you to try and light a match with the flint thing on the bottom - don't get suckered into buying these kinds of useless items.

7. Repair Kit and Tools:

- o Knife - with knives, like flashlights, smaller and lighter **IS** better. There is no need for a fixed blade (straight) knife that requires a sheath. I have only carried the Victorinox Swiss Army Knife "Classic" model (the little one) for the last five years, it weighs 0.7 ounce, and I only use it for the scissors. A single-blade pocket knife that weighs less than 2 ounces is more than adequate. NO: multi-bladed/multi-gadget knives or multi-tools (e.g., a Leatherman). Unnecessary for Scouts or adults and very heavy to boot.
- o Repair Kit -
 - 2 to 3 feet of duct tape, rolled on a shortened plastic straw.
 - Small sewing needle with an eye big enough to accept your dental floss. Stick it into/thru a cut down business card or a small piece of foam to protect the tip.
 - A couple of safety pins.
 - About 20 to 25 feet of string (not rope nor even parachute cord).

8. Nutrition: extra food - one protein bar (or similar). You are rarely so far off the beaten trail to need more than this.

9. Hydration:

- o Water bottle - The "standard" 1-liter Nalgene weighs 3.8 ounces, and a cleaned 1-liter water or pop bottle weighs 1.3 ounces. Skip the Nalgene. I carry a wide mouth 1-quart Gatorade bottle. For most of your Scout's hiking, he will not need to carry more than 1 liter of water at a time, but he may need containers that are large enough to hold 2 quarts of water or more for some outings. Choose a collapsible 2-liter bottle - they are very light and can be rolled up when not in use. NO: "Camelbak" style water systems. Too heavy, difficult to refill, subject to punctures, result in Scouts carrying too much water weight.
- o Water purification - AquaMira or similar drops/tabs, to avoid the taste of iodine. I also recommend and carry the SteriPen UV Water purifier, though this may be a bit pricey for most Scouts. NO: Pump systems. Too heavy. More information on Water Purification in Part II.

10. Emergency Shelter: A large garbage bag, 33 gallon or bigger. These work for a number of things, including an emergency shelter or rain coat. Always have one in your pack.

11. Whistle: Get a good plastic one. The whistles that come on a pack's sternum strap aren't worth much more than playing a one-note song; they are just not loud enough to be of any value. Get a "real" light plastic whistle, most outdoor or boating stores have them.



November morning at Camp Parsons, Kitsap Peninsula, Washington.

Backpack

I have never had a Scout show up for an outing with everything **except** a backpack. Thus I do not list "backpack" on my packing checklist, though a backpack is one of the most important purchases you'll make. It is best to purchase the backpack **after** you have acquired the other Big Four (backpack, sleeping bag, sleeping pad, and shelter) items, as well as the other equipment your Scout will be packing. When you have made these purchases, you will know the size of pack needed. Otherwise you may purchase a pack that is too large or too small in volume.

Picking a pack for an eleven-year-old is not easy, especially if they are on the shorter side of the growth chart. There aren't many packs made for their size, and they might grow out of it quickly, so take growth into account when buying. There will be

times that your Scout will be wearing their backpack for four to eight or more hours at a time; you will want it to fit correctly and be comfortable.

Backpacks typically come in the following weights: traditional weight (4 to 8+ pounds), lightweight (2 to 3.9 pounds), ultra-lightweight (1 to 2 pounds) and super-ultra-lightweight (under 1 pound). Scouts and their parents have no need or use for the traditional weight or size pack, so we will not discuss them. Please avoid them. If you know about super-ultra-lightweight packs and where to get one, you probably don't need to read this article, so we will not discuss them either.

Three important things to consider when looking for a pack are:

1. **Size** - Packs are sized to correspond to a person's torso size, and vary from one manufacturer to another. Though there is no true standard in pack sizing, at least some effort is made to follow torso sizing, so having that accurately measured is important. You can go online for instructions; REI and Backpacking.com have good videos on how to measure for a pack. Pack sizes can range from XS to XL, depending on the manufacturer. If women's or youth sizes are offered, those may be a better fit to a Scout's body, and women's packs often have more closely spaced shoulder straps (helpful for smaller Scouts). Just don't tell the boy it's a women's pack, and he'll never know. I have seen many a macho boy wear a women's pack unknowingly, thinking they were the top stud.
2. **Weight** - Pack weight makes up part of the "Big Four." The weight of an empty pack is very important. You should not need nor purchase a pack weighing more than 3.5 pounds, for you or your Scout. Some of my Scouts carry excellent packs that weigh 1.8 pounds. You might not find them at the big box retailers; you might need to do some research, but they exist and are worth the effort to find.
3. **Volume** - If you have pared down your equipment, you won't need a large pack. A small volume pack will also encourage your Scout to bring less, saving weight. Optimum volume would be between 2400 cu in (39 liters) and 3600 cu in (59 liters). You should not look at anything larger than a 3500 to 3900 cu in (~65 liters). There is no need for anything larger, even in winter. Again, it is best to get most of your Scout's other gear before you purchase a pack, because the volume needed will be dictated by the size of the gear to fit in the pack. *Don't purchase a pack with such a small volume that you must strap or dangle things from it.* It seems like every troop has someone who does this, and it invariably brings to mind the classic idea of a hillbilly, bobbing down the trail, clanking. Everything should fit **inside** the pack with the exception of maybe a sleeping pad, rolled tightly under the pack lid.



Top of the world - or at least Thorp Mountain. Mt. Rainier in the background. Notice the water bottles - lightweight and reusable!

Backpacks come in three main types: frameless, internal frame, and external frame. Frameless packs require additional knowledge for weight and proper packing, and are probably outside the scope of most new Scouts. You are most likely to find internal frame packs to meet the above recommendations for size, weight, and volume.

Please do not be tempted to purchase a pack cover, also sold as a rain cover, opting instead for a pack liner. We use a trash compactor bag or a kitchen size garbage bag. These are inexpensive and work the best. You can also use a large 33-gallon garbage bag to cover the pack at night, the pack will fit completely inside.

Sleeping Bag

Sleeping bags can be a difficult purchase. Temperature ratings are usually set arbitrarily by the manufacturer, though Europe has a standard temperature rating process called "EN 13537," which is reliably accurate. Unless you see the official EN 13537 rating, take temperature rating with a grain of salt. Low quality bags abound, but the manufacturers of these often overstate their temperature rating. High quality bags can be very expensive, but are usually more accurate with temperature ratings. Temperature rating is simply a starting point, and how it applies to your Scout depends on if they are a warm or cold sleeper and the circumstances they will most likely encounter on overnight trips.

The next issue with sleeping bags is whether the filling or insulation should be down or synthetic. Some people think that you shouldn't use a down bag in wet weather; or that synthetic is warmer when wet. My take on this: I never want to sleep in any kind of wet bag. I work to keep my bag dry at all cost, and so should you, which largely eliminates moisture as a factor in this debate.



Nice warm sleeping bags. Cowboy camping, Umtanum Canyon.

Now, cost and how rough a normal twelve-year-old is **are** factors - big factors! A good down bag costs a lot more than a synthetic bag, and while down is lighter, it is also more fragile. My boys all had synthetic bags until they were sixteen years old. Their first bags were purchased used, and I didn't worry about how my boys treated them. Of course I **knew** how they'd be treated - I was a twelve-year-old Scout once. We try to teach the Scouts respect for their gear and attempt to curtail any blatant disregard, but we also understand that some of their brain function got turned off when they turned twelve. Now, if your son is like my nephew, you could give him a \$300 down bag and it would still look new, fifteen years later. It's your call (and money), and you know your Scout best.

Either way, down or synthetic, you should try to get a bag that weighs less than 3 pounds, and is preferably closer to 2 pounds. Just as a reference, some of the highest quality 20F bags weigh around 1 pound 13 ounces. When you get more

comfortable with backpacking in general, you might want to look into backpacking quilts. They are even lighter than a sleeping bag and can be more comfortable, especially for hot sleepers.

Make sure that, whatever type of bag your Scout has, when in their pack it should be in a tight plastic bag (plastic trash compactor bags work best), for moisture protection. At the very least, stuff the sleeping bag in its own stuff sack that's been lined with a plastic bag (plastic on the inside).

Sleeping Pads

There are three basic types of sleeping pads and each has their own merits (below). Pad lengths range from a short, torso size to a full length 6'8" size. Why, a parent may ask, would someone want only a torso sized pad? To save weight! You can put your empty pack under your legs for insulation. Why carry more than you need to? This works for both Scouts and adults, and they are totally comfortable while sleeping and on the trail (carrying less weight). A 5-foot Scout doesn't need a 6.5-foot sleeping pad.



Therm-a-Rest, ZRest (new- ZLite) CCF pad. Frenchman Coulee, Washington.

1. **Closed Cell Foam (CCF)** - CCF is by far the lightest and cheapest way to go, and it is what most of the Scouts carry. CCF pads are not subject to punctures like the other pad options, making these a no-brainer to recommend. Most of our Scouts carry a ZRest or RidgeRest made by Therm-a-Rest, others carry the 3/8-inch blue firm foam pads. CCF is easy to trim to the size or shape of your Scout. Because sleeping pads often get strapped to the outside of the pack, a CCF pad can take a lot more abuse than those listed below without affecting its performance. This would be my first choice for a Scout, who usually isn't heavy enough to warrant the thicker padding of the other options.

2. **Self Inflatable** - Many manufacturers, colors, sizes, shapes, weights, etc. Try to stay under 1.5 pounds! If you are looking to go this direction, remember that thicker is heavier. Carrying a 4-pound pad is not worth it; there are other options for comfort. Keep reading.
3. **Inflatable / Air Mattress** - Today there are a number of options in this area, but they mostly fall into two categories: Insulated and Non-Insulated.
 - o **Non-Insulated Inflatable Pads** - Without insulation, these pads are vulnerable to convection and radiation heat loss. Take care if choosing them, because that heat loss can be a liability, even in summer. I do not recommend these for Scouts in our location (Pacific Northwest).
 - o **Insulated Inflatable Pads** - Insulated air pads can be the most comfortable way to go. That comfort comes at a higher price, the need for TLC, and the need to actually blow them up. Insulated inflatable pads have down or synthetic fill or a "reflective barrier." Given their cost and comparative fragility, I do not recommend purchasing an inflatable pad for a Scout.

Other Stuff

Ground Sheet - In our troop we try and sleep under the stars (cowboy camp) as much as possible, so having something to protect your sleeping bag from getting dirty is a good thing. A 7 x 3 foot piece of 3 to 4 mil plastic is all that is needed. You could also cut down the sides of a heavy duty, super large plastic garbage bag. A sheet of Tyvek works very well if you have access to that, though it will be noisy the first few times you use it. A ground sheet is also necessary for tarp camping.



Cowboy camping on 3 and 4 mil plastic ground cloths. Frenchman Coulee, Washington.

Kitchen

Utensils - At most, all your Scout needs is a cup (cheap plastic ones work great), a Lexan (unbreakable plastic) or titanium (pricier metal option) spoon, and maybe a bowl (a used margarine tub), but nix the bowl if they are freezer bag cooking. NO: Mess kits. A mass of wasted metal, they are not worth the weight.

Soap - People have far more digestive problems in the backcountry from lack of personal hygiene than any water borne illness. I recommend a natural, liquid soap like Dr. Bronner's, repackaged into a small dropper bottle. A purse-sized hand sanitizer can be brought along as well, but soap is more effective.

Personal

Toothbrush - A small, light toothbrush, stored in a Ziploc sandwich bag.

Toothpaste - A travel size is more than a Scout will use in a year, but repackaging is not really an option. Tooth powder or baking soda in a tiny Ziploc is even lighter. Alternately, have your Scout make ["toothpaste dots."](#)

Small trowel - For digging a cathole, though a stick or tent peg works just as well and is one fewer item to pack. If the trowel weighs more than 2.5 ounces, don't bring it. Use a stick.

Toilet paper - Don't send the whole roll! About 6 to 8 feet should be far more than needed for an overnigher. Fold it up and put it in a Ziploc.

When my third son turned eleven years old, for his first outing the troop planned a short 1.5-mile hike up to a beautiful small lake. I "allowed" him to pack his own pack, thinking "if he overpacks, he'll learn for the next trip." His pack weighed about 35 pounds! I should have stepped in to help him out, but at that time I was trying a different parenting style. Please don't make the same mistake. Let your Scout pack their own pack **after** they have been trained on how and what to pack (remember the 25% rule).

In Part II of "What a Scout Needs for Backpacking," we will complete our discussion with:

- Clothing - underwear to outer shell
- Footwear
- Other optional items
- Troop Gear
- Water Filters/Purifiers
- Stoves
- Shelters - Tents and Tarps

What a Beginner Needs for Backpacking: Part 2

Clothing, Footwear, Group Gear (Water Treatment, Stoves and Fuel, Shelter). Basic training for the beginner and/or young backpacker, with a focus on Scouts.

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by Tad Englund | 2012-02-21 00:00:00-07

Read Part 1: [The Lightweight Lesson, Essentials, Backpack, Sleeping Bag and Pad, Personal Kit.](#)

Introduction

These articles were written to follow my "Three Season Hiking Checklist" which as Scoutmaster I would give to the Scouts prior to each outing. The articles discuss each item on the list, in order, and are designed to help those new to backpacking make educated decisions about the gear they carry. Though I mention Scouts often, it is largely because I originally wrote this for them, but the information is valid for others as well!

Three-Season Hiking Checklist

Pack List for Overnight/Multi-day - Semi Lightweight		
Worn Clothing:	What to Pack:	Kitchen:
Pants (no cotton if possible)	Sleeping bag (in plastic-lined stuff sack)	Freezer bag cozie
Wool blend socks	Sleeping pad - open or closed cell	Cup and spoon (minimal)
Hiking/running shoes	Ground sheet	Biodegradable soap (small amount)
Long sleeve shirt	Water bottle - full! (1 liter, max) see hydration	
		Misc. (Optional): Remember to keep weight down!!
Hiking Essentials, Packed as a Kit:	Personal:	Fishing rod and reel w/ lures
Navigation (map and compass)	Toothbrush and paste (small)	Hiking poles or staff
Sun protection (lip balm, sunscreen [small amount], sunglasses)	Towel (very small)	Baseball cap
Insulation poncho or rain suit (see Clothing Systems in Part II)	Lightweight trowel (for catholes), or skip and use stick/tent stake	Camera (lightweight and small)
Illumination (flashlight/headlamp)	Medicines (Do not leave any prescriptions at home! This is not a time to try to go without!)	Small Scriptures or copy of pages you are reading (very lightweight!)
First aid kit (5 oz max)		Gaiters
Fire (fire-starter and matches)	Packed Clothing: Lightweight!	
Repair kit and tools (including small knife)	<i>Base Layer (lightweight)</i>	Food:
Nutrition (see extra food)	Long underwear tops and bottoms in light or midweight. NO COTTON.	Snack food - trail mix, candy (minimal if any, please!)
Hydration (extra water, 1 liter max) and purification tablets (lightweight)	Wool or wool blend socks (only one extra pair)	Breakfast - Patrol Assignment
Emergency shelter (troop tent?)	<i>Insulating Layer (lightweight)</i>	Lunch - Patrol Assignment
Whistle	Extra shirt (no cotton)	Dinner - Patrol Assignment
Toilet paper (very little)	Fleece sweater or sweatshirt (no cotton)	
Garbage bag - large	Wind shirt (6 oz +/-)	Shared Troop Gear:
Duct tape (2 ft max)	<i>Protective Layer (lightweight)</i>	Water filter/purifier
	Shell jacket (rain) - important!	Tent w/ground sheet
	Wool/fleece mittens/gloves	Stove and fuel
	Fleece or wool hat	
	Bandana (yes, it has many uses)	

Part II covers the stuff that seems to take up a lot of room and weight in a backpack, as well as what to wear while hiking.

I was involved in Scouting as a boy. Looking back, my pack was heavier than the ones made today, because the pack frame was made of wood! My tent was a floorless “pup tent” made of heavy canvas. My mother made my sleeping bag out of an old, worn out sleeping bag (batting), oiled duck cloth (outer shell) and new flannel (inner shell). It was a tough heavy bag, so tough I didn’t even need a ground cloth. With an extra pair of jeans, a collapsible Sterno stove (the thing never worked right), a flashlight that seemed to have a five-minute battery life, and some canned food, I had all ever needed. That was also all I carried. Most of my buddies carried similar stuff.

Boy, how things have changed! The gear options for backpacking today are enough to make your head spin, or at the very least burn a hole in your wallet. Do your homework before shopping to get the most bang for your buck.



From school to trail. Thorp Lake, Washington

Clothing

How to dress your Scout for the outdoors? As Don Ladigan says in his book, *Lighten Up!* “Hikers expect a lot from their clothing. It has to insulate them from cold, ventilate in hot weather, and shield them from rain, snow, wind, and sun. A hiker’s clothing has to do all this whether the hiker is moving and generating heat or standing still and cooling off.”

We live in the Pacific Northwest, and dealing with moisture is a way of life, but there are also times when it’s warm and dry. This swing in weather conditions can happen on the same outing. What do you need to make sure your Scout is warm and dry, cool and comfortable? Things in the clothing industry have dramatically changed in the last decade or two, but one thing has stayed consistent: **cotton is rotten**.

If there is any possible way to avoid it, please do not send a Scout into the backcountry with any cotton clothing. This includes jeans or cotton T-shirts. Wearing cotton is a recipe for disaster. Cotton gets wet easily from either rain or sweat, and it takes forever to dry out, sucking the heat out of your body. It’s also heavy and uncomfortable to wear when wet.



When his cotton jeans got wet, not even his belt could keep them up. Luckily, we found this bungee on the trail and put it to work. Please: no jeans.

Luckily there are much better options that are as cheap or cheaper to wear. The new “technical” fabrics that are out now wick moisture away from the skin, keeping you cooler in summer and warmer in winter.

To help accomplish the “warm and dry, cool and comfortable,” we use the basic layering system:

Base Layer

1. **Underwear**- The Scout should already have a pair of underwear on when they come to an outing. Odds are, they are made of cotton. I don't know how to avoid cotton underwear for Scout-age youth, but try and get as much poly or nylon blend as you can, for all the issues discussed above, in addition to preventing chafing. For those so inclined, you can get merino wool or Capilene (Patagonia brand) underwear. Both are fantastic, both are expensive. For most outings (overnights), there is no need to bring an extra pair of underwear. I know there are mothers out there crying “Heresy!” - but in thirty years, though I've tried to encourage them, I have yet to have a Scout change their underwear on a short outing. Why carry something that will not get used? The pair they are wearing is enough, and they will have a backup with the long underwear (discussed below) they are bringing anyway.

2. **Long underwear-** NO COTTON! Get both a bottom and a long sleeve top. You can use these for Scout outings as well as all other cold weather activities (snow sports, tubing, soccer, football, etc), so get something that fits. Please read the label before you purchase them. Polypropylene is the most prevalent fabric for long underwear, made by many manufacturers. Long underwear also comes in merino wool (my preference), nylon, and polyester. In cooler weather long underwear can take the place of regular underwear, no need to bring an extra pair of both.
3. **Wool or wool blend socks-** As Will Rietveld and Janet Reichl wrote, "[Cotton is hydrophilic \(water loving\) and absorbs three times more moisture \(from sweat\) than most synthetic fibers, it doesn't insulate when it's wet, and it takes 14 times longer to dry compared to synthetic fibers. Water is a good heat conductor, so when your socks and feet get damp they will lose heat up to 25 times faster than when dry.](#)" Cotton socks are a major source of blisters while hiking.

Wool (merino wool), wool blend or CoolMax are far better fabric choices than cotton. They cost more, but they last longer. I don't know too many Scouts who have wool socks at home, and purchasing specialty socks is not high on many parents' priority list, but if you purchase a couple of pair, they will last most of your Scout's hiking career. For short outings, they will only need the pair they are wearing and a pair for sleeping. Hiking for two days in the same pair of good quality socks is no big deal and just like underwear, they won't put on the extra pair anyway. Wear clean socks for sleeping, as you'll have warmer feet. We use one pair dedicated only for sleeping (I use thick wool or fleece socks). For an outing of four or more days, you can send an extra pair: three pairs total.

Liner socks are a thin (non-cotton) sock wore inside the above discussed socks. With the newer socks out now, I find I don't need the liner and haven't used one for 10 years. Some might say, "Well, that won't work for me." Please give it a try - you might be pleasantly surprised. If you must use a liner, use only wool or synthetic. One pair is all that is needed, wash them out after hiking and they will be dry or dry enough in the morning.



Making clothing adjustments for winter. Mount Rainier.

Insulating Layer

1. **Extra shirt-** No cotton shirts! Besides the shirt they are wearing to hike in, this “extra” shirt can/should be the long sleeve underwear top from the base layer above. If wearing the long underwear top for hiking, use a poly blend short sleeve shirt in warm months or another long underwear shirt for cool months. A lightweight fleece (100 weight) shirt/pullover works well when a little more insulation is needed. Please do not have your Scout wear their Scout shirt uniform. Lord Baden-Powell stated in *The Scouter* (1913): “I don’t care a fig whether a Scout wears a uniform or not so long as his heart is in his work and he carries out the Scout Law.” To reiterate what I said in Part 1: A non-cotton troop or patrol t-shirt works well. Please do not wear the Scout uniform shirt; the patches, pockets, pins, emblems, and shoulder epaulets are not conducive to hiking with a backpack and thus should be avoided.
2. **Pants-** Some Scouts hike in our area hike in long pants, others like to hike in gym shorts with or without long underwear underneath (see base layers above). Either way, do not wear cotton, especially jeans! If jeans are absolutely all you have (or all you showed up in), by all means, wear them. Better than the alternative. But remember: in wet weather, they are always a mess, and the Scouts wearing them are always cold. I suggest thin, quick drying hiking pants. I personally don’t like the “convertible” type (zip off legs) because they feel like I’m walking with two small Hula Hoops around my thighs. Lightweight synthetic pants are the best. You can purchase a used pair at Goodwill or a thrift store in great shape for less than \$5 (that’s cheaper than jeans).
3. **Down, synthetic or fleece sweater or sweatshirt-** Please NO cotton sweatshirts. A down sweater can very expensive, so I won’t discuss it here. A synthetic filled pullover or sweater is a good option for a Scout. They can handle wet weather a little better than down, they pack smaller than fleece and hold up fairly well, but they are also expensive. Fleece is a great material. It is relatively inexpensive and is good for insulation. Fleece has two drawbacks: it’s heavy and bulky, but I don’t know of any alternatives that will insulate and hold up to the wear and

tear of Scouts. A good 200 or 300 weight fleece will work. They are hard to pack small, but a great value. You can find one of these for next to nothing at your local thrift store.

4. **Windshirt-** A windshirt is a very lightweight thin nylon or nylon/polyester type jacket that weighs less than a shirt. They are not waterproof, making them highly breathable. They are designed to block the wind while hiking and in camp so you can stay warm when a heavier jacket isn't necessary. They should weigh no more than 9 ounces, preferably less. They will keep you amazingly warm when worn over a long sleeve shirt or fleece jacket. They are an integral part of the layering system.

Protective Layer

1. **Shell jacket/poncho-** Waterproof and breathable! News flash - it rains in the Northwest. Care is needed when looking for a rain shell. Do not purchase an expensive jacket for your Scout: the danger of something bad happening to it is too high. Look for a lightweight and inexpensive jacket, in that order. You will get wet from the rain outside or from sweat on the inside. Young Scouts don't sweat much, so breathability isn't as big an issue as it is with adults. Secondhand stores are a great place to find a hiking jacket. On the right day, you might even score an expensive WPB jacket for \$15 or less! If you can find a poncho that will fit your Scout with his pack on and weighs less than 12 ounces, get it and have them use that for their protective layer.
2. **Wool/fleece mittens or gloves-** Fleece or wool keeps your hands warm even in the rain. It can get cold enough even on a summer evening/morning to need a thin pair of gloves handy.
3. **Wool/fleece hat-** A beanie, toque, or skull cap is one of the most important things to have in your pack. It's a myth that we lose 75% of our body heat through our head, but you do lose heat from exposed skin. It is important to have something to help keep the heat in, and evenings in the mountain can get cold. I wear my hat almost every evening to bed, in my sleeping bag. The simpler the better – a snowboarding-style "Court Jester" hat is uncomfortable for sleeping and tempting for other Scouts to grab at: leave it at home.

Footwear

Shoes- Yes, shoes! Get a good-fitting sneaker-style shoe. It is best to have a shoe that is a half to a full size larger than what your Scout normally wears. Feet swell during a hike, and if there is no room for the now larger foot, problems arise. Please monitor your Scout's shoe size. I have had too many Scouts complain that their feet hurt from too small shoes that they have out grown. There is no need to wear hiking boots, especially not leather ones! Boots are for those carrying over 50 pounds, ice climbers or glacier travel with crampons. Don't use the excuse of weak ankles; boots don't help protect your ankles. Studies have shown that they could be the **cause** of some ankle related problems. It wasn't until I got out of boots and into very lightweight trail runners that my ankle problems went away.

Most Scouts can wear their everyday sneakers and do just fine. Don't spend extra money on shoes, and especially not on hiking boots.



Notice the shoes: joggers or trail runners. Mirror Lake (and more) Washington.

Gore-Tex or other waterproof/breathable (WPB) shoes should not be needed and are not worth the extra cost to purchase. We live in the Northwest, and wet weather is inevitable. A good wool sock and a light, breathable shoe, if wet, will keep your feet warm. This combination can also dry out in thirty minutes to an hour. WPB shoes will eventually get wet inside, and once wet, will take forever to dry out, because the water is trapped behind the WPB membrane. In hot weather, the same WPB shoes don't breathe, so your feet get wet from sweat and again they stay wet, because they can't dry out - not a good situation for your feet. Stay with trail runners or a regular jogger, and you will be the most comfortable.

Odds and Ends

Bandana- A bandana is a quintessential multi-use hiking item. It can be sun protection when worn around the neck or head, used to pre-filter dirty water before treating, used as a pot holder/first aid sling/triangle bandage/etc. They are inexpensive, so one should always be in your pack. This should also be the only cotton item in your pack, just wash before packing.

Miscellaneous and Optional (Remember to keep the weight down!)

1. **Hiking poles or staff-** Hiking poles are not necessary for most Scout age youth; they seem to either get broken or lost. They can be a trip saver for adults, though. I loaned a pair to an adult who said his knees would have given out on the way down a mountain trail if he hadn't had the hiking poles. They add stability, balance, and take some of the strain off your legs on the descents. I have a pair and use them on occasion, depending on the trail.

Most important: keep them lightweight. Collapsible poles are convenient for pack stowage, and poles can be used when setting up a tarp.

2. **Baseball style hat or cap-** In summer this becomes a necessity for sun protection. A nylon type is best and lightest. The cotton baseball cap is too heavy and hot. A hat is also a good way to hide a bad hair day on the second day of an outing and on the way home.
3. **Swimsuit-** Lightweight nylon running shorts work great. Thick, long basketball shorts are far too heavy, don't dry quickly, and are a tripping hazard. A regular swimsuit with a liner can also be worn as a pair of shorts (saving the need to bring an extra pair of underwear). The swimsuit needs to be very quick drying.
4. **Gaiters-** Summer-weight gaiters keep dirt, sand, and small rocks out of your shoes and should be made of thin, lightweight, breathable material. Most Scouts don't use them, but they are nice to have if you find that even the smallest pebble will cause you irritation. I recommend the Dirty Girl brand, despite the name. They are very lightweight and work great.
5. **Camera-** With the advent of digital cameras, the old Scout staple "disposable" camera has gone by the wayside. Unless your Scout is a photo buff and can adequately care for a camera, I advise against sending them out with a camera of any value. Don't let the "my phone has a camera" be an excuse to bring a phone - there is no use for Scouts with phones in the backcountry, and my troop didn't allow any type of electronics on an outing.
6. **Fishing rod and reel w/lures-** If your Scout is so inclined and wants to fish, get good quality, packable equipment. Your Scout will not have any fun if they have poor quality equipment. Packable is important so that the rod isn't broken before it leaves the vehicle or while on the hike in. A short, two-piece rod can work if it is short enough.
7. **Small Scriptures or reading material-** Purchase a small paperback edition, cut the binding off so the pages are separated, and your Scout can bring only the pages they are reading without having to carry the whole book.

Troop Gear

Our troop provides Water Filtration/Purification, Stoves, and Shelter (Tarps/Tents), which makes trips easier for the Scouts and parents.

Water Filtration/Purification

There are a number of water treatment systems on the market. Some work better than others and some are better for Scouts than others. For the most part, your system is needed for drinking water. For cooking, you normally boil the water, and by doing so fix any potential problems.

I will leave the debate over whether the fear of backcountry pathogens is excessively exaggerated or a real issue for a different time. Washing one's hands, especially after relieving yourself, is the best prevention for backcountry illnesses. I will simply present the various options as how they apply to Scout outings.

No matter what system you use, you will need to have one for every three to four people, otherwise you will be waiting too long for "your" turn, making water stops last much longer than necessary. For large groups, weight and size multiplies by the number of "systems" needed to facilitate the group's water needs.

1. **Chemicals**
 - o **AquaMira-** Aquamira Water Treatment treats drinking water using chlorine dioxide. It is probably the leader in this group. You can purchase either drops or tablets. I think the drops are better; there's no taste

and it takes less time to activate. I haven't found a local source, though the company is located in Bellingham, but you can get it online. I recommend this brand.

2. Tablets

- o **MicroPur or AquaMira Tablets**- Takes about 30 minutes to 4 hours to activate, works on anything in our area (Pacific Northwest). Some people notice a slight chlorine taste, but nothing strong like iodine tablets.
 - o **Iodine Tablets**- These have been around forever. I remember the first time I tried them: as a twelve-year-old I swore I would rather have whatever was in the water than to drink that foul tasting stuff. I never used them again. Lucky for me I never had to find out what the alternative was. Iodine takes 30 minutes for efficacy, and the bottle is usually heavy.
3. **Ultraviolet** At this time, there is only one major player in the UV backpacking water treatment market: SteriPen. These are almost foolproof and the Scouts like using them. Most outdoor stores have them and can hopefully help correctly educate you about the product. I highly recommend using this form of water treatment over any of the others, because of the ease of use, product size/weight, and effectiveness. They are battery operated, so care is needed, and I recommend having a backup (I use AquaMira as my backup). Follow the manufacturer's specs on batteries - only use what they recommend, or you might/will have issues. With older SteriPens, take batteries out when not in use, because they could slowly discharge while hiking. With the newer "Opti" versions, they have less trickle drainage, so you can leave them in during an outing. Always store the units with the batteries removed.
4. **Pump Filters**- These filter, but do not purify, water. With that said, they get rid of all the nasty stuff that can cause problems in the backcountry. They have been around for a long time and are effective, but they are heavy and more work than the other options now available. Weight and the amount of water that can be filtered in a given time frame should always be taken into account. Always follow the manufacturer's specs on long-term storage. The First Need is the only true "purifier" pump on the market right now. It's a great pump (I own one), but heaviest of all pumps and not necessary for backpacking in the Northwest.
5. **Gravity Filters**- Gravity filters are like pump filters without the pump system. They are usually just the cartridge with a couple of hoses and a source water bag. These can be very lightweight and work well for base camping. Always follow the manufacturer's specs on long-term storage. This would be my choice if the SteriPen wasn't available.

Stoves & Fuel

Our troop provides the stoves for the Scouts to use, so they don't need to purchase a stove. This information is for those in other troops or adults looking for a stove.

Care needs to be taken when operating any stove. BSA requires adult supervision over any stove use. If you plan on attending an outing, please know how to work the stoves that will be in use. I have had more trouble and dangerous issues with adults not knowing how to use the equipment than Scouts not knowing. Again, please learn how to properly use your and the troop's equipment **before** the outing!

1. **Alcohol**- BSA's policy on alcohol stoves- "Prohibited Chemical-Fueled Equipment - Equipment that is handcrafted, homemade, modified, or installed beyond the manufacturer's stated design limitations or use. Examples include alcohol-burning "can" stoves, smudge pots, improperly installed heaters, and propane burners with their regulators removed." There is an ongoing debate on this issue about what is a "handcrafted" vs "manufactured" alcohol stove. There are a few alcohol stoves that are commercially manufactured and sold commercially, but it can also be said that they are handcrafted. I am not going to give an opinion either way, but I will say I have seen Scouts have far more dangerous issues with white gas stoves than with alcohol stoves. I think white gas stoves can be as dangerous, if not more so, than any homemade alcohol stove. To stay on the safe side of the liability issue, I make no recommendations for your Scout group. For short, personal outings, these are the lightest, best stoves - "and that's all I have to say about that." (*Forrest Gump*)

2. Canister

- o **Upright-** This is probably the best stove to purchase for backpacking with Scouts. There are a number of manufacturers to purchase from, but the “gold standard” is the SnowPeak Gigapower (or SP 100). If you don't have access to this stove, there are many others with good reviews.
- o **Integrated canister-** The older versions of the integrated canister were great in concept, but they had a few drawbacks that kept them on the fringe for lightweight backpackers. With new competition coming from MSR and Primus and modifications JetBoil has made, the newer versions of all brands are worth taking a look at.

Please read Will Rietveld and Janet Reichl's three articles on the subject [Lightweight Integrated Canister Fuel Cooking Systems](#) for more information.

Though integrated canister stoves may be good for your own personal use, they may be too limited and expensive for troop use. Scouts should cook with the “Patrol Method,” and a stove's flexibility in this case is important.

- o **Remote canister-** Remote canister stoves are basically an upright with a hose attached to the canister. They are heavier than their upright brothers, so for a new Scout/Scouter you should get the upright.
3. **Multi fuel/white gas-** If you are buying your first stove or you can only afford one stove, this is not the type you should buy. There are a number of multi/white gas stoves on the market. They are heavy, bulky and more dangerous than the canister stoves. Their main advantage over canisters is in very cold (20°F and lower) temperatures. Some white gas stoves can be good for group outings where a cooking in a large pot is needed, but “large groups” doesn't fit the BSA “Patrol Method” (small units), so you shouldn't need this type of stove for that type of outing.
 4. **Wood fire stoves-** Wood fired stoves are beyond the discussion for new Scouts - there are a few cool products and DIY projects out there for more experienced Scouts.

With any stove and Scouts, this must be said: NEVER USE A STOVE IN YOUR TENT! (Cooking in a tent is beyond the scope of this article.)

Tent or Tarp?

A number of years ago, the parents in our troop got together to discuss the damage to their personal tents when used by the Scouts on outings. They decided to solve the problem and purchase the necessary number of tents for the whole troop. This solved the damage to their tents, and all in all the boys took pretty good care of the new ones. The big problem was that the new four-person tents weighed 10.5 pounds each!



You'd smile, too, if your dad carried this 10-pound four-person tent for you!

The thought was that when the tent, fly, and poles was divided up, the tent's total weight wouldn't be an issue. Well, it's hard to divide a three-piece tent between four Scouts. We did it by having the fourth carry the canister stove and pot. Still, the tent body by itself was almost 5 pounds. It didn't work well when all four Scouts sharing the tent weighed less than 100 pounds each, limiting the total weight they could carry (remember the 25% rule from Part 1).

We fixed the heavy tent problem by purchasing commercially-made three-boy (two-man) tarps that weighed 1 pound for the tarp and 1 pound for the heavy-duty, Scout-proof aluminum pole. The total weight for three boys was 2 pounds! When looking at shelter, think outside the box (tent). We saved over 8 pounds per shelter!

I do not expect (or advise) anyone to purchase a four-season, expedition grade tent for Scouting or regular backpacking outings, so I will not discuss them here.

In this section I also assume your Scout will use troop equipment, so the below information is for the adults who accompany the Scouts.

Three-Season Tents

Three-season tents come in all weights, shapes, and sizes. There are single-wall, double-wall and net tents. As Ray Estrella reported in his [State of the Market Report on Two-Person Double-Wall Tents](#):

"A double-wall tent is preferred by the majority of backpackers because:

- Condensation is not as large an issue, as the inner walls keep one from brushing against the wet outer walls. The inner tent will also keep condensation from falling onto you and your gear.
- The double walls provide some insulating value, making the temperature slightly higher inside.
- In bad conditions, a double-wall tent offers more protection with greater ventilation.
- In nice weather, many double-wall tents allow the inner to be pitched alone, giving a view of the stars and the feel of "sleeping out" without the hassle of insects.
- Once the weather has cooled enough to eliminate insect issues, many double-wall tents offer a Fast-Fly set-up, allowing the fly to be set up with just the poles and a footprint, eliminating the weight of the inner.

However, there are some disadvantages when compared to a single-wall tent:

- Traditionally, a double-wall tent is going to be 25% to 50% heavier than a comparably sized single-wall tent.
- A single-wall tent packs down much smaller than a double-wall, allowing a smaller volume backpack to be used.
- A double-wall tent takes twice as much time to set up as a single-wall shelter, though there are some exceptions to this.
- A single-wall has its interior protected while setting up in a downpour..."

Whether double- or single-wall, make sure it's lightweight (less than 4 pounds for a double-wall, some single-wall two-person tents weigh as low as 2.5 pounds). Also keep an eye out for weather protection, ventilation, ease in setting up, rain fly coverage, and vestibule size (storage size). You won't find many 2.5-pound tents at the big box stores, as they are made by cottage manufacturers, but they are out there and worth the time and effort to find them.

Tarps

When we talk about tarps, we are not talking about the blue ones sold at the hardware store (though they or even a simple plastic sheet work just fine). We are talking about a flat or shaped tarp made of very light waterproof fabric. Like tents, very lightweight high-quality tarps are usually made by cottage manufacturers, though larger companies like Sierra Designs and MSR have a few options worth looking at. Do some research on tarps before you purchase one; your time spent will be rewarded by a smarter purchase.



Lightweight tarps work even in the rain. Sierra Designs Origami 3.

A tarp's advantages are:

- Lightweight: some weighing less than 7 ounces!
- Ventilation: condensation is rarely, if ever, an issue for a tarp.
- Stability: given their low profile, tarps can handle wind better than most tents.
- Flexibility: there are a number of options in how you can pitch them.
- Cost: generally cost less than a tent.

One of the best experiences when using a tarp is to wake up and watch the sunrise from the warmth of your sleeping bag without anything blocking your view.

Cookware

There are a lot of pots and pans and kits out there right now. Cost and what you can afford are the biggest deciding factors, but remember the lightweight rule. Titanium fits the weight bill best, but it is the most expensive. Stay away from stainless steel - too heavy. Aluminum/aluminum non-stick is probably the best for Scouting. It conducts heat well, is reasonably priced, and can take a beating.

Don't get a pot bigger than you will need. If you purchase a kit, only take one pot and lid, sized for your needs on that trip. I take a 0.7-liter kettle when I am cooking for myself (which is most of the time) or a 1.3-liter pot when cooking for two. Make sure your pot fits your stove: some of the canister stoves have very small pot supports and will not safely support a larger pot.

Don't get snookered into buying a kitchen kit with all the bells and whistles, you just won't or shouldn't use all that stuff. A pot, lid, and spoon are all you need. The rest is just extra weight and fluff.

Conclusion

Well, there you have it.

When I started this article I figured it would be a few pages long, just some quick notes about the items on the checklist. Ha! These are my "quick notes about the items on the checklist." You could write a book about each topic covered, and many have. Most Scouters could also write a book about the mistakes they've seen regarding each topic covered. Still, these articles should give you a firm foundation of basic information to make informed and smart buying decisions. Please use this information to help make your Scouts time in the outdoors enjoyable.

To help make your new Scouts experience the best possible, get involved in their life. Basically that means "to be there," not as a hovercraft, but as an observation balloon. I have never heard a retired parent say "I should have spent more time at the office." Business can wait, kids don't.

A little about me:

I have been involved in Scouting as an adult for almost 30 years, as a Scoutmaster, Assistant Scoutmaster, Varsity Coach, Venture Advisor, on a Troop Committee, etc. I have had all adult Scout training through Woodbadge, and all my certifications are still current. I give this information only to show that I have a thorough knowledge of how Scouting works and the concepts behind it. I also understand the real world. I try to work both of these worlds together for the benefit of my family, myself, and those I associate with.

I am the father of eight children, four boys and four girls, most of them grown and out on their own.

Through 30 years of backpacking solo, with family, and especially with the Scouts, I have learned a bit of what works and what doesn't. Most important, I've learned how not to ruin a trip or your back with an overweight backpack. According to my family, I spend an inordinate amount of time researching and testing backpacking gear. My recommendations are based on my own experience, involvement as an equipment tester for a few undisclosed backpacking equipment manufacturers, thousands of hours on forums and discussions with industry experts, and years of trial and error (mostly error).

My old backpack weighed 7.5 pounds empty. I now hike with a base weight (everything, including my pack, except food and fuel) of around 7 to 10 pounds depending on the trip. My hiking situation is much better than it was when this whole thing started. I hike farther, faster, lighter, and now I really enjoy what I do!

Citation

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Troop 697, still smiles after four miles. Manastash Lake, Washington.