

Troop 272

Nashua, NH

Backpacking Guide



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Document summary: This document includes a discussion of various backpacking related topics and individual scout equipment recommendations. It also includes a personal equipment list for each scout as well as a patrol equipment list that individual patrols can use to make sure they remember patrol gear for any backpacking trip. It is a resource to both scouts and their parents.

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Backpacks

First piece of essential gear is a “real” backpack. Packs designed for day hikes won't work for backpacking trips. Whether you buy one or borrow one, adjust it for your body. Fully loaded, nearly all of the weight in the backpack should be resting on your hips. The shoulder straps are mostly there to keep the pack vertical and close to you. There are two types of backpacks: internal frame and external frame. It is up to you which type that you choose. Internal frames are fancier looking and come in many styles and colors, but generally the drawbacks of internal frame are that you can't carry as much with them, they don't ventilate your back well, and they aren't as adjustable as external frame packs. I've always use external frame packs and been happy with them, but I've noticed lately they are getting harder to find.

Use a backpack that fits: youths and teens who try to use adult backpacks are in for a miserable experience. These packs don't properly adjust to fit them and distribute weight properly. At EMS last year, I bought the Kelty 2900 external frame backpack for my son and we loaded tested it this summer with a 6-mile trip in the white mountains. He loved it. I got in on sale for \$90 – about the price of 2 video games. The nice part is that it adjusts so that he'll be able to use it his entire scouting career.

When **packing your backpack**, general rule: place heavy items toward the top, lighter items down the bottom. This typically means tent on the top (near shoulders), sleeping pad on the very bottom, and sleeping bag inside the pack in the middle (some packs come with a sleeping bag compartment).

Other heavier items such as water, camp stove and fuel, tent poles and stakes, and food near the top of your pack and close to your back. Place the lightest items, such as fleece, and rain/wind gear at the bottom, away from your back. Medium-weight items, such as utensils, clothing, lighter foods can either go near the top away from your back, or near the bottom close to your back. In the outside pockets, place miscellaneous items that you might need to access quickly: map, compass, knife, flashlight, fire starters/matches, etc. Make sure you pack a trash bag or two for garbage at your campsites and wet clothing.

Backpacks (continued)



Example: Internal Frame pack with tent on top

Line the main compartment of your pack with a garbage bag with the top folded over. Put the heaviest items closer to the small of your back and near the top. Keep your rain gear, snacks, and whistle easily available. Use zip-top bags and stuff sacks liberally. Keep all of your smellable items in one or two places so that you don't forget any when you need to place them in the bear keg/bag.

NOTE: A backpack should not weight more than 20% of your total body weight. This means that larger scouts may have the honor of carrying equipment for the younger scouts.

Finally remember this fact: Whatever you pack, you have to carry on your back for however long you have to hike. **SO PACK LIGHTLY!**

Food & Stoves

You don't eat the same way you do at home when you are backpacking. You want food that is lightweight, easy to prepare, and creates little trash. No cans, bottles, or big boxes of stuff. You also don't want sloppy foods that are hard to cleanup!

You can reduce food weight and volume by packing primarily dehydrated meals. These are quick to prepare and you can eat them right out of the pouch they come in with just a cup of boiled water added. Drawback is that they are expensive. But you may want to consider them for at least 1 meal.

Avoid excess raw meats, especially on long trips. Pack calorie dense food, but try to eat from a variety of food groups. Eat a lot of carbohydrates and protein. Since you'll sweat a lot, make sure you get sufficient salt. Most food packaging is bulkier than necessary and less waterproof than you'll prefer. Before you go, divide up your food and repackage it into zip-top bags.

Consider the following foods (sample menu items):

- Breakfast - oatmeal, granola or cereal bars, nuts, and dried fruit.
- Lunch - bagels, hard cheese, pepperoni, crackers, peanut butter, summer sausage, pre-cooked bacon, raisins, nuts, and apples.
- Dinner – One pot meals that combine rice with chicken, kielbasa, and veggies. Instant soup, and quesadillas. AVOID: Pasta and macaroni and cheese (where do you drain water?) Don't forget dessert--pudding or cookies are great! Drink tea or instant drinks that come in handy premeasured tubes.

Example: Spanish Jambalaya (feeds 6)

1 package Kielbasa, 1 bag frozen peas and carrots, 2 boxes spanish rice

Boil rice according to box instructions. When rice is done (after 20 minutes) add chopped Kielbasa and bag of frozen peas. Let mixture simmer for 1-2 minutes. Eat.

Example: Dehydrated meal

- Pad Thai (Thai noodles with peanut sauce)

The troop owns three jetboil stove cooking systems (GCS). You want to make sure you plan your meals so that you can use these stoves. Lightweight Jetboil PCS systems are also great and can be purchased for your own personal use, but the troop does not provide these stoves.



GCS System



PCS System

Sleeping Bags

For back packing, I recommend that you buy or borrow a DOWN-FILLED mummy bag. The main difference between down and synthetic is that down will pack down smaller and be lighter for the same temperature rating. However, care should be taken to make sure the bag doesn't get wet because the bag will lose some of its insulating value when wet (see the importance of a sleeping pad section below). Synthetic bags are fine, they will just be heavier for your son to carry and for smaller scouts, this may present a real problem. Sleeping bags are sold and priced by comfort rating. It should be rated for at least 30°F or below. Mummy bags have a hood that extends up over your head and allow you to close off the bag so that nothing but your nose and mouth is exposed.

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

A sleeping pad will keep you from feeling the rocks underneath your tent, will insulate you from the cold ground, and keep dampness from getting into your sleeping bag. It is essential if it will be chilly at night. Your sleeping bag's filler will be compacted under your weight so it will only protect the top of you – meaning that the primary insulation under you is your sleeping pad.

Sleeping pads come in two types: Self-inflating foam pad OR closed cell foam pad. Each pad has an associated “R” (resistance) factor associated with it. Just like home insulation “R” factors, the higher the “R”, the warmer the pad. Closed cell foam pads are the cheapest and lightest, which is ideal for backpacking, but you will sacrifice comfort. Self-inflating pads are more comfortable, but they tend to be a little heavier and they can puncture under heavy boy scout abuse. Most popular brand of pad is ThermoRest. Don't skimp here. Buy the best you can afford.



Ex. Closed Cell Pad



Open cell inflatable pad

Outer wear and rain gear

This clothing 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 perhaps even nylon pants without many pockets or other bells and whistles. They are sometimes referred to as windbreakers or wind shirts. Most 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 poncho. I like them because when I'm hiking, I can slip it on to both cover myself and my backpack all at once. Only drawback: they trap in moisture and you can get pretty hot wearing them and they are not totally windproof. But for new scouts just getting into back packing, I don't recommend more than this.

As an alternative, 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. 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.

Footwear

Hiking Boots

Hiking boots are the most important hiking gear purchase you will make. And not all brands or models are created equal. The right hiking footwear will carry you far, fast and comfortably. It should be as light and comfortable as possible for the type of hiking you're doing, while also keeping your feet dry, warm, and well-protected.

Lightweight trail shoes or light hikers – originally design for day hikes only, these shoes are ok for shorter hikes and small 1-day backpacking trips, but offer little in the way of ankle support that you need for longer hikes with a heavy pack. If you use these, you want to make sure that they are waterproof.

Backpacking Hiking Boots are designed for hiking over rougher ground while wearing a moderately heavy backpack. They come up over your ankle and lace up for extra support. Backpacking boots are more durable and supportive than lightweight shoes and boots. You want to be sure that your boots are waterproof (look for Gore-Tex symbol) and insulated for colder hikes. Work boots are not hiking boots!



When trying on these boots, be sure to wear the socks you plan on wearing for hiking. This will ensure that they are roomy enough to be comfortable.

Hiking Socks

No white cotton socks unless you want cold wet feet. It is best to wear two thin layers of socks to prevent blisters and ensure a happy hiking day. The primary sock layer (the one next to the skin) should be made of synthetic materials or silk. These are commonly called “liner” socks. The outer layer should be a lightweight wool blend like SmartWool or Wigwam. These will wick away moisture and provide insulation even when damp. They also both dry much faster than cotton socks. Don't skimp here. But the best you can. Make sure you take these socks with you when you try on hiking boots!

Patrol Backpacking Requirements

In addition to packing for yourself, your patrol will need to carry all the items that the group will need for the trip. This will include tents, stoves, food, cooking water, and any cooking utensils you'll need for the trip. Remember this fact as you plan your menu...if you stick to simple meals, you'll have a minimal amount of patrol gear to carry.

Patrol needs:

- Tents.
 - How many do we need?
 - Who will carry them this trip?
- Stoves:
 - Does our menu require them?
 - Who has them?
 - How many needed?
 - Do we all know how to use them?
- Cooking utensils?
- Menu?
 - What's on the menu?
 - What's on the shopping list?
 - Who is doing the food shopping?
- Cooking water?
 - Does everyone need to bring an extra container of patrol water?
 - If not, how many do you need?

Individual Equipment List

This is an actual list of the items you'll need and the approximate weight.

Item	Pounds ounces		
Backpack	5	0	
Sleeping bag	4	0	
Mattress pad	2	0	
Patrol gear (tent etc)	5	0	(potentially carried by older scouts)
Full water bottle	1	6	
Flashlight		4	
First aid Kit		9	
2 extra AA batteries (flashlight)		2	
Trail mix		6	
Compass + Matches+ Whistle		3	
Firestarter		1	
Poncho	1	2	
Pocketknife		3	
Mess Kit (pot pan cup)	1	7	
Fork Spoon (heavy plastic)		1	
Toilet Articles		4	
Rope (50 ft. 3x16)		4	
Half Roll Toilet Paper		4	
Extra Socks		5	
Long Underwear	1	0	
Wind pants		5	
Hat and Gloves		6	
Total	18	93	

Total pounds 23.8 lbs including Patrol gear. Bring less patrol gear and you lighten your pack!

Optional Recommended Gear:

Watershoes/Crocs – good for campsite and water crossings!

Water filter – safely refresh water supply on trail.

Waterproof backpack cover (silicon) – keep your gear dry on trail or in camp