

Cold Weather Travel and Camping

Venturing Crew 2001 & Boy Scout Troop One, Akron, OH

This handout is an expanded list of what to bring on a Klondike and much of this information comes from chapter 13 of the BSA Fieldbook: The BSA's manual of advanced skills, for outdoor travel, adventure, and caring for the land.

"If your toes are cold, put on a hat!"

"Let's play the stupid game!"

"If you aren't thirsty, drink anyway!"

"To Stay Warm Think COLDER"

- Think **C**lean
- Avoid **O**verheating
- Dress in **L**ayers
- Stay **D**ry
- Often **E**xamine
- Quickly **R**epair

Be prepared for extreme cold and wetness. Winter can be unpredictable. The way to stay warm is to dress in layers and stay dry. Dressing in layers allows you to regulate heat by taking off and putting on various layers. Wetness, including sweating, will lead to a cooling down of the body. This is desirable in the heat, but more troublesome in the cooler temperatures. Change ALL clothes before going to bed.

How do we get warm?

Your body must maintain a core temperature a little higher than 98 degrees.

- we get heat from converting food and water to energy
- we get heat from external sources such as the Sun and campfires

How do you get cold? Really?

Heat can be transferred away from your body in several ways:

- **Radiation** – body heat dissipating into cooler surrounding air (from bare hands and bare head, for example). Wear gloves and a hat, if you take them off have them on your person to put back on at the first hint of coolness.
- **Evaporation** – from sweating. Don't overheat. The sweat on your skin and absorbed in your clothes reduces your chances of staying warm.
- **Convection** – wind stealing away the layer of warmth next to your skin. Wind is a thief, protect from it.
- **Conduction** – direct contact with cold surfaces, such as sitting or lying on snow, ice or frozen earth. Do not lay in the snow. Avoid sitting on cold benches. Having a piece of closed cell pad to sit on can help insulate. Some find even standing on such a pad helpful.
- **Respiration** – exhaling. Really! Every time you breath out heat leaves your body. You have to breathe, but careful with high levels of respiration.

To stay warm use a three-fold approach

- Wear cold weather clothing
- Eat food and fluids
- Provide for shelter

Wear:

Wool and fleece can insulate even when damp. Do not wear cotton even for internal layers because it retains body moisture. Dress in layers. Various layers should wick away moisture, insulate for warmth, and block the wind. Clothing insulates by trapping dry, warm air inside the fabric and between layers of garments. Perspiration can crowd out that warmth by filling fabric with moisture-laden air that conducts heat away rather than maintaining it. Try to stay comfortable cool by resting now and then as you travel (hike and backpack). Have dry clothing layers in plastic bags so you can replace damp items with clean and dry items.

Headgear is essential. some examples (1) stocking cap, (2) balaclava, (3) hood with ruff and locking tabs, (4) scarf, and (5) neck warmer.

- **Appropriate Uniform**
 - **Troop One Travels in Full Uniform. Crew 2001 Travels in Crew Shirts.**
 - **Weather appropriate clothing for activities.**
- Socks - wool is best, acrylics next best, cotton is bad and must be avoided.
- Warm pants - avoid jeans. The cotton gets wet, does not dry quickly, and wicks heat away from the body)
- Long underwear, tops and bottoms
- Several sweaters/sweat shirts – zip up is good to vent heat and perspiration
- Heavy winter jacket or coat (remember the layering idea) **Waterproof** in case it rains.
- Hat (wool or acrylic stocking cap best)
- Gloves/Mittens (if not cold have these in pack). Have a spare pair in case yours get wet or lost. Waterproof shells over your gloves or mittens can be especially helpful. Prepare for the worst with your hand gear is the best.
- Many like to wear waterproof pants (shells that go over regular pants)
- **Waterproof Hiking boots.** This is a must. Bring 'em or go home. The key is to keep your feet dry, insulated, and keeping the blood flowing freely. **DO NOT BRING TOO SMALL BOOTS!!** This is a serious safety issue. Limited blood flow invites freezing skin. Foam inserts in the bottom of a boot with enough room provided an amazing amount of warmth insulation (check the Dr. Sholes rack at the local drug store).
- Watch (optional, but recommended)

Sleeping Stuff:

- **Sleeping bag in water resistant bag** (trash bags tear easily). You can get 'stuff sacks' at Dicks and other camping specialty stores.
- **Insulating closed cell foam pad** (anything from a WalMart pad to a top shelf ThermaRest). It is vital to insulate against the ground. Two pads insulate better than one if you have them. Conduction with the ground will steal your warmth. You need a high level of insulation under you. some say you need more under than on top of you.
- Sleeping bag rated to 20 degrees or lower. If your bag is rated to a higher temp, bring wool or acrylic blankets. Do not bring cotton blankets.
- Extra blanket for cold temp (optional, wool or polar fleece best, cotton is a bad idea)
- A fleece sleeping bag works can work as a liner that can keep your regular sleeping bag clean and add more insulating power. Any liner will work, but do not use cotton (sense a theme here?)
- Don't become so warm that you perspire in the night. Ventilate by opening the bag, taking off your hat, or removing a clothing layer.
- Sleeping clothes. NOT worn for anything but sleeping and always worn when sleeping. Sleeping clothes need to be clean and dry so pack them separately in a large ziplock bag. Some find that sleeping in a hooded sweatshirt adds warmth and keeps the cold air off the neck. Fleece layers, mittens (not gloves), a stocking cap (wool or insulated best), warm socks.

Pack in a soft backpack or duffel bag – Do not in a backpacking pack

Other Things

- A change of boots may be desirable, a pair of shoes may help while your boots are drying by the fire.
- 2 long sleeved shirts – a change from that sweaty, wet shirt.
- Sweater or sweatshirt (again cotton is not user friendly in winter camping)
- An extra pair of pairs of pants (avoid jeans. The cotton gets wet, does not dry quickly, and wicks heat away from the body)
- Change of underwear – Yes, its cold, but so is that clammy underwear. cotton really isn't good here either.
- 3 extra pairs of socks - wool best, acrylics next best, cotton is not recommended.
- Eating kit consisting of "unbreakable boilable" plate, bowl, mug, spoon, knife, fork. The mug should be insulated to hold heat and keep from burning your lips.
- Water bottle. It may be cold but you will sweat and will get thirsty. Bottle should **NOT** be metal or glass and must not leak. Wide mouth is easier to open and close in cold weather.
- Personal Toilet articles: Hand sanitizer, soap, toothbrush, toothpaste, comb, washcloth in plastic bag, small roll of toilet paper in zip lock bag and whatever else you need for the weekend. Latrines are available, toilets and showers are not.
- Flashlight with extra batteries- remember, batteries wear out faster in the cold. New campers always like large flashlights, but the more experienced will have a two cell AA-size flashlight. Spare batteries and flashlights perform better if you keep them warm in your pocket.
- Water proof matches in a plastic container.
- Personal Emergency/First Aid kit: 3-5 bandaids, other misc. first aid, parent's discretion
- **All drugs (prescription and non-prescription) to be taken by Youth or Adults should be noted on the permission slip. We need to let first responders know what medication has been taken should an emergency arise.**
- **Permission must be granted the Adult leader on the permission slip to allow youth to either (1) self-medicate or (2) have the leader give the medicine.**

You are going to have a great deal of fun and will want to remember it. A camera is recommended, but it may get wet. Can you say lots of zip lock bags?

Food and Fluids

For the Klondike, Troop One and/or Crew 2001 adult volunteers will provide all meals so that the youth may focus upon the weekend's activities. Food will be hot meals and will be high in calories to help fight the cold weather; this is not the time to diet. No personal food is necessary. No food should ever be stored in tents or in personal gear; raccoons and other varmints find tent and duffel bag material easy to tear open to get at those tasty treats.

An exception in extreme cold is a few high fat power bars can help your body fuel up and start producing heat for you to get warm. These are not snacks, these should be in their own sealed bag and then sealed in a zip lock bag and only eaten if you wake up in the night shivering.

Foods with fats provide lots of slow-burning calories.

Drinking fluids is extremely important in cold weather. If you are not thirsty --- DRINK ANYWAY. Cold disguises your need for fluids. A better check is the color of your urine. Keep it light and clear. If dark in color start pushing fluids. A dehydrated body is more susceptible to the cold and can lead to hypothermia and frostbite. Dehydration is often the primary cause of hypothermia and frostbite.

Keep your water from freezing. A tightly sealed water bottle will not freeze if you take it into the sleeping bag with you at night. Fill it with hot water and slip it into a sock for a foot warmer. Water bottles buried at least a foot under the snow will not freeze over night. Bury them upside down.

Shelter

Youth are expected to sleep in tents. You can stay very warm in a tent, but the smaller the tent in proportion to the number of people sleeping in it, the warmer you will stay. All of the heat in a tent comes from your body heat. The more bodies, the more heat, the larger the space to heat, the colder the tent will be.

Do not enter the tent until you have brushed off all of the snow on you. Have your tent mate brush off your back. A tent brush is a good thing to use to keep you and your tent clear of snow.

A cabin will be available for warming and for those who the Adult Leaders determine should not be in tents. **Use of the cabin for any purpose is at sole discretion of Mr. Myers for Troop One and Mr. Poorman for Crew 2001. No one else may approve use of the cabin.**

Fire

Fires will be available in the cabin. Outdoor fires may be lit at the Scout/Venturers discretion. An old saying is "White man builds big fire, stays cold. Red man builds little fire, stays warm." It is an old saying, but it is still true.

Fire can only heat one side of you at a time, and if you can feel the fire's heat that means that you are not dressed warm enough. If heat can get in, then your body heat is getting out. Do not depend on the fire to get you warm.

Fire is for cooking, drying clothes that you aren't presently wearing and to provide good cheer. True winter campers avoid fire because it overheats them and that can be very dangerous.

DO NOT BRING ELECTRONIC DEVICES. YOU DO NOT NEED ELECTRONICS OF ANY KIND. YOUR CELL PHONE BATTERY WILL DIE IN THE COLD. NO RECHARGING FACILITY IS AVAILABLE. ADULTS SHOULD CONSULT MR. MYERS OR MR. POORMAN.

Scouts are responsible for their own gear. Snow has a way of covering up and causing you to lose items.

First Aid and Managing Risky Behavior

Review first aid for dehydration, hypothermia, frost nip, frost bite.

- Stay in good shape
- Know where you are going and what to expect
- Adjust clothing layers to match changing conditions
- Drink plenty of water
- Protect yourself from exposure. Protect your eyes from snow glare with sun glasses.
- Take care of your gear.

Cold Weather Leave No Trace

- (1) **Plan ahead and prepare** – check weather and prepare for the worst
- (2) **Travel and camp on durable surfaces-**
- (3) **Dispose of Waste Properly -**
- (4) **Leave what you find -**
- (5) **Minimize campfire impacts -**
- (6) **Respect wildlife** – animals are vulnerable and stressed, stay clear.
- (7) **Be considerate of other visitors**