

WINTER CAMPING

Be Prepared. That's the motto of the Boy Scouts. "Be prepared for what?" someone once asked Baden-Powell, the founder of Scouting. "Why, for any old thing." said Baden-Powell.

Keep in mind the Texas weather can fluctuate. Looking at the 30-year averages and records for Athens, Texas you can see that this history for December 28th includes a daily record low of 20 degrees. And for the month of December, the 30-year record low has been -2 degrees.

| | Monthly | Daily |
|----------------------------------|---------|-------|
| Normal High (F) | 60.5° | 56.4° |
| Normal Low (F) | 37.3° | 33.2° |
| Record High (F) | 86° | 82° |
| Record Low (F) | -2° | 20° |
| Mean (F) | 49° | 45° |
| Normal Precipitation (in) | 3.3" | 0.1" |

Personal Equipment

The essence of staying warm in the winter is having the proper clothing layers and knowing how to use them effectively.

Heat Retention and Loss

The body basically acts as a furnace, producing heat through chemical reactions and activity. The key to keeping warm is to add insulation to the body.

Insulation

The thermal insulation of clothing results from dead air space next to the skin. Heated up by the body, it provides a layer of warmth around the body. The clothing is not what is keeping you warm, it is the dead air.

The Layering Principle

The key to providing this dead air space is through having a number of layers of clothing. This allows you to add or shed layers to increase or decrease your accumulated dead air space as the temperature changes. Remember, your body is the heat source, the clothing layers only serve to trap the heat and slow down your heat loss to the cold environment. If you have too much clothing on, you will overheat and start to sweat. You need to find the proper heat balance between the number and types of layers and your activity level.

The Body and Clothing

1. Head - You can lose a great deal of heat, up to 70%, from the head. Therefore, hats are *essential* in winter camping. The adage - "if your toes are cold, put on a hat" - is true.

2. Hands - Mittens are warmer than gloves because you don't contend with the curvature problem described above. Also the fingers tend to keep each other warm, rather than being isolated as in gloves.

3. Feet - Finding the right footwear depends a great deal on the activity you are involved in as well as temperature and environment. Lightweight, waterproof barriers (like *Gore-Tex*) are built into many hiking boots to enhance their water resistance.

4. Socks - One of the best systems for keeping feet warm is using multiple layers. Start with a thin polypropylene liner sock next to the skin to wick moisture away followed by a pair of wool or wool/nylon blend socks. Make sure the outer socks are big enough that they can fit comfortably over the inner layers. Keeping your feet dry is essential to keeping your feet warm you may need to change your socks during the day. Always put on clean dry socks: Put on tomorrow's socks tonight.

5. Outer Layer - It is essential to have an outer layer that is windproof and at least water resistant. It also needs to be able to be ventilated.

Clothing Techniques

1. When you first get up in the morning, your activity level will be low as will be the temperature. You will need to have many, if not all, of your layers on at this point until breakfast is over and you have started to become active.

2. When you get ready to be active, you will need to take off layers since you will begin generating heat. A good rule of thumb is to strip down until you feel just cool, not chilled just before activity. If you don't, you will overheat, begin to sweat, and start losing heat.

3. Open or closing zippers, rolling sleeves up or down, taking a hat off or putting one on will all help with temperature regulation.

4. If you stop for more than a few minutes, you will need to put on another layer to keep from getting chilled. Keep a layer close at hand.

5. At the end of the day, as activity decreases and temperature drops, you will need to add layers. Once you start to cool down it takes a lot of the body's resources (calories) to heat up again. So layer up as soon as possible, before you get chilled. It may be good to put on more than you think you need; it will only get colder. If you are too warm, you can open up layers and ventilate to reach the proper temperature.

Sleeping Bags

1. Sleeping bags for winter camping should be rated to temperatures *below* what you will likely experience if you want to be comfortable. If the nighttime temperature can drop to 30 degrees Fahrenheit, then your bag should be rated to 15 degrees Fahrenheit.

2. Size your sack: You don't necessarily have to have a subzero bag to sleep warm, but you *do* need a good fitting bag to minimize the amount of energy to stay cozy. Not all people have the cash to replace bags as the boys grow larger, and most parents have already bought that one bag to last throughout Scouting. Boys can sleep warmer by packing their clothing inside the bag with them to further insulate themselves, but too much can compress the bag's insulation and decrease the bag's effectiveness.

2. A 15-degree mummy style bag may just be right for three-season camping needs. Mummy bags are more efficient at insulating you from the cold. They have less dead air space to heat, and most bags have an insulated hood and/or neck collar that can be drawn snug as the temperature drops, preventing heat loss through the largest source, your head.

3. Fit a liner into a sleeping bag to increase warmth. A fleece liner can add up to 11° to your current bag.

4. Vary what you wear to bed. Simply by changing your clothes, you can easily vary the temperature

of the bag. A layer of quality thermal underwear and heavy socks can extend your comfort zone by up to 15 degrees.

Foam Pads

You also need to insulate yourself from the underlying ground. Conduction will quickly cause you to lose body heat and feel colder than the temperature dictates. A good solution is to always sleep on a pad, providing a layer of insulation from the cold ground. Foam pads (Ensolite) or inflatables (Thermarest) work well. Your insulation should be at least ½" thick (two ¾" summer pads work well). It is best to use full length pads so that all of your body is insulated.

Winter Camping Equipment Notes

- Scouts will travel to Winter Camp in Class A Uniform.
- Use the following list as a guide to help you pack
- Please label everything with the Scout's name and Troop number
- Items should be carried and stored in the Scout's backpack or duffle bag
- If bringing a footlocker, ensure it is waterproof as it will be stored *outside* the tent
- Wear loose fitting clothing in layers, so that you can adjust your level of warmth to the temperature and level of activity.

DO NOT BRING (will be taken away from the scout if found)

- Axes or Hatchets
- Fireworks or sparklers
- Sheath Knives
- Aerosol Cans
- Candy
- Food
- MP3 Players, Electronic Games, or Any Other Electronics

[The equipment checklist is on the following page, so you can print it out and use it.]

WINTER CAMPING EQUIPMENT CHECKLIST

| Have | Buy | Packed | |
|------|-----|--------|--|
| | | | Clothing |
| | | | Class A Uniform, including Neckerchief and slide |
| | | | 6-pair of Undershorts [or enough for six days] |
| | | | 2 Long Sleeve Undershirts (polypro or polyester is best) |
| | | | 2 pair Long Underwear Pants (polypro or polyester is best) |
| | | | 2 Class B Shirts (new scouts only have 1) – that is ok |
| | | | 2 Heavy Shirts or Sweat Shirts (avoid cotton) |
| | | | 2 Sweaters or a sweater and vest or polar fleece |
| | | | 2 pair pants (suggest a material other than cotton as jeans will stay wet) |
| | | | 1 pair Shorts – just in case |
| | | | 10 pairs of Socks (wool if possible –include pair of Scout socks) |
| | | | Sleepwear (pajamas or long underwear. Do not sleep in the same clothes worn all day) |
| | | | 2 pair shoes (minimum) (water-resistant hiking boots/shoes recommended) |
| | | | 1-pair of boot liners (look for 50% wool; the best are 75% wool/ 25% polypropylene) |
| | | | 2 Stocking Hats |
| | | | 1 Scarf or “neck gaiter” |
| | | | Winter Jacket (ski jacket or parka) |
| | | | 1 pair Sweat Pants with nylon shell pants, or ski pants |
| | | | Rain Gear (lightweight raincoat or poncho with plastic rain hat) |
| | | | 2 pairs of mittens or gloves (mitts better) |
| | | | Eating |
| | | | Mess Kit (Plate and Bowl) |
| | | | Cup (preferably insulated type) |
| | | | Knife, Fork, and Spoon Set |
| | | | Water Bottle or Canteen |
| | | | Toilet |
| | | | Soap [in a container] |
| | | | Shampoo |
| | | | Toothbrush and toothpaste |
| | | | Wash cloth |
| | | | Bath towel |
| | | | Comb |
| | | | Toilet Paper [in a Zip-Lock bag] |
| | | | Miscellaneous Items |
| | | | Boy Scout Handbook |
| | | | Sleeping Bag (if not rated for 15°, bring a fleece liner to supplement) |
| | | | Sleeping Mat |
| | | | Pillow |
| | | | Laundry Bag [an old pillowcase will suffice] |
| | | | Flashlight [with fresh batteries and spare batteries] |
| | | | Camping Chair (small) |
| | | | Scout Knife (scout approved) (remember to bring your <i>Totin’ Chip</i> card) |
| | | | Compass |
| | | | Merit Badge Binder, including blank paper,& pens |
| | | | Fishing equipment |
| | | | Money (for lunch in Athens, drinks, snacks, camp shirts, etc. at Camp Trading Post) |
| | | | Assortment of plastic grocery bags |
| | | | Medications |
| | | | Place in a Zip-Lock bag and provide to the Scoutmaster, with instructions, on the morning prior to leaving for camp. |
| | | | Optional |
| | | | Sunglasses |
| | | | Disposable Camera |
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