**Cold Weather Camping Out**

**Tips for Scouts and Parents**

Compiled Jan. 2013 for the use of Wichita Falls Troop 22

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**Introduction**

A large part of Scouting is camping. Camping offers many opportunities for parents and scouts to bond with each other. Whether it’s a weekend car camping trip to an area state park with the family, a Camporee/ Rendezvous setting , or even a summer camp or wilderness backpacking trek, the memories will last a lifetime. Scouts and parents alike have the chance to learn new skills and gain new experiences to share with each other and those who follow.

Even though the memories that last the longest and tales that get the most re-telling are the ones where things go awry, such as the leaky tents, the sudden thunderstorm or blizzard, the airborne equipment that wasn’t lashed down or the meals that didn’t taste the way they were expected because someone forgot to bring their ingredients, nobody wants a tragedy to remember. It is our goal as Scouters to teach our scouts skills to cope with the unexpected, and to learn to anticipate hardship in advance.

Nature is an equalizer. Even the most experienced outdoorsman can find himself in serious trouble very quickly if he fails to plan properly and take the unexpected into account. This guide will give some hints to help parents and scouts make decisions about what type of equipment to buy and take along on trips. Since we live in Texas, we rarely experience the extreme cold that those in some parts of the country expect on a regular basis, but the weather here can change rapidly, and a life-threatening situation can rapidly unfold.

A scout’s task is to Be Prepared, and the purpose of this guide is to help. Camping and the outdoors is a FUNdamental part of the Scouting Experience, and with proper preparation, FUN will be the ultimate result, with a lifetime of bonding, teaching and learning to share.

Take the following quiz. This quiz appeared in the January/February issue of ***Scouting*** magazine. Answers follow.

1) Temperatures may dip to zero at night. Which sleeping system is best?

a) an air mattress and a 35-degree sleeping bag

b) a closed-cell foam pad and a 35-degree sleeping bag

c) a minus-20-degree bag; snow is soft, so there’s no need for a foam pad

d) a closed-cell foam pad and two 35-degree sleeping bags

2) You don’t need a water bottle in winter. If you’re thirsty, just eat snow.

True

False

3) Given equal thermal efficiency, which sleeping-bag fill is best in below-freezing temperatures?

a) goose down

b) Polarguard Delta

c) Primaloft

d) all are good, if you keep them dry

4) You’re going on a five-mile hike on a cold (10-degree), clear day. What shouldn’t you wear?

a) a fleece pullover and cotton-shell parka

b) snowmobile suit

c) acrylic sweater and nylon shell parka

d) polyester long underwear and wool sweater

5) Which of the following shouldn’t you wear when winter camping?

a) wool sweater

b) blue jeans

c) acrylic stocking cap

d) polyester long underwear

6) You are building a Quinzee hut. The wind is blowing from the north. In which direction should the door face?

a) to the north

b) to the south

c) it doesn't matter

7) Which of these should you have inside your Quinzee hut at night?

a) trail stove

b) folding saw

c) candle

d) shovel

8) You have a jug filled with drinking water. It’s best to:

a) set it upside-down in the snow

b) set it right-side-up in the snow

c) cover it with a tarp

d) put it inside your tent

9) Where should you place your plastic ground cloth when tenting in snow?

a) inside the tent

b) under the tent floor

c) you don't need a ground cloth in winter

10) Which trail stove is bad for winter camping?

a) gasoline

b) butane

c) kerosene

d) propane

11) Which of the following would be most useful when washing dishes?

a) leather gloves

b) rubber gloves

c) a sponge

d) a thin plastic food scraper

12) You’re going on a five-day hike. Temperatures may vary from zero to freezing. Which item is best left at home?

a)raingear

b) cotton hoodie

c) cotton-shell parka

d) all of the above

13) What do you do with your boots at night?

a) set them outside of your tent

b) put them in a stuff sack and then set the sack inside your sleeping bag

c) change socks and wear the boots to bed

14) You’re camping in deep snow and cooking on a one-burner gasoline stove. Which of the following would be useful?

a) a short length of steel chain

b) 12-inch-square piece of light plywood

c) 12-inc-square of closed-cell foam

d) two aluminum poles

15) What should you do with your sleeping bag when you get up in the morning?

a) stuff it so it won't collect moisture

b) wait 20 minutes before stuffing it

c) hang it on a limb or cord for 20 minutes

d) any of the above

16) Besides a cell phone, what’s the best signal gear to bring on a winter campout?

a) a whistle

b) a flare gun

c) a hand-held, marine-orange smoke signal

17) What’s the best water bottle for winter?

a) aluminum

b) polycarbonate

c) stainless steel

d) none of the above

18) What's the best way to treat an advanced case of hypothermia (victim is disoriented and shivering)?

a) quickly place the victim beside a roaring fire

b) replace wet clothes with dry clothes, then place the victim beside a roaring fire

c) administer hot soup

d) remove wet clothes, except underwear, then place the victim in a sleeping bag between two people

19) Where should you build your campfire?

a) on top of the snow

b) dig down to the ground and make the fire there

c) construct a thick base of small logs on top of the snow, then build the fire on top of the base

d) all of the above are acceptable

20) What should you do with your headlamp when you go to sleep?

a) wear it on your head

b) set it near your sleeping bag

c) put it inside your sleeping bag

d) put it in a tent pocket

**ANSWERS**

1. D - Two nested sleeping bags work as well as one cold-weather bag. An air mattress provides no insulation.

2. False - Eating cold snow will drop your body temperature and cause you to burn more calories.

3. D - Down absorbs moisture, so it’s not the best choice for winter.

4. B - Several thin layers are better than one. You can overheat quickly in a snowmobile suit. Cotton-shell parkas (outer wind layer) are more breathable than nylon.

5. B - Wet blue jeans wick away heat from your body.

6. A - Discourages blowing snow from sealing the entry. If you face the door into the wind, the snow will blow over the hut and pile up in back. But if you face the door away from the wind, the snow will blow over the hut and possibly seal the entry to the hut (in a big blizzard). Always face your hut into the wind and utilize a partial snow-block door or low wall at the entry to keep out the blowing wind and snow.

7. D - If the entrance is buried by blowing snow, you’ll have to dig out.

8. A - The buried end won’t freeze.

9. B - Under the tent to keep the floor from freezing to the ground.

10. B - The thermal efficiency of butane decreases as the temperature drops.

11. B - Wear warm gloves inside rubber gloves when you wash dishes. The plastic scraper may freeze and break.

12. B - Bring rain gear if temperatures could reach freezing.

13. B - This will keep boots from freezing.

14. B - The wood square will keep the hot stove from sinking into the snow.

15. D is correct, but C is also good — It’s best to air out your sleeping bag. On a sunny day, moisture will evaporate by sublimation.

16. C - Orange smoke is visible for miles. Flares can only be seen at night. An air horn is useful only if rescuers are nearby.

17. B - Water freezes faster in metal than in plastic. Metal bottles can cause “ice burns” when touched to skin.

18. D - Warming the extremities too rapidly (big fire) can send cold blood to the heart and brain.

19. B - A fire built on the snow will soon sink out-of-sight; foam could melt with direct exposure to flame.

20. C - Batteries should be kept warm for maximum light. Lithium batteries are best in winter.

How did you do?

**Planning**

Planning is undoubtedly the single most important aspect of any camping trip, but there are special problems associated with winter camping. Probably most important is the weather—how cold will it be? Will it be raining? Snowing? Wind conditions? Sunny? Other considerations include water—is there running water? Many state parks and Scout camps winterize in preparation for freezing weather, and the water may be turned off, necessitating the carrying of drinking water. If planning a back country trip, where can you obtain usable water if necessary? Will the lake or rivers be frozen solid? Will there be snow available to melt? How will you melt it? Do you have enough fuel for stoves to cook and melt snow to boil and drink, or will you use treatment tablets? As you can see, the logistics can quickly become overwhelming.

Winter Leadership Skills

A. Safe Outing

The perception of adventure and fun are the main reasons any Scout will participate in any high adventure activity such as cold weather camping. As leaders, we must recognize the seriousness of the activity. Cold weather, particularly in the heart of winter, presents us with an unforgiving environment. We will discover that typical tasks such as setting up a tent or fly cannot be done as fast as in the summer. Our comfort is continually challenged. Nevertheless, as a leader we realize that a safe trip is infinitely more important than any other trip goal. It can be helpful to assess the leaders’ and Scouts’ capabilities and then set limits for weather extremes. Communicate these limits to your Scouts and parents in order to build confidence. If they exceed your training or the group’s capabilities, you must be prepared to cancel or terminate the event. It is much better to thrive on a cold weather outing than to “survive”.

In addition to the environmental concerns that must be understood and communicated to the Scouts, it is important to establish a positive attitude before and during the event. Frustration and fatigue can begin to take a toll when conditions are challenging. A cheerful can-do attitude is always helpful to encourage the group. During the preparation sessions, be sure to develop positive verbal and behavioral norms.

B. Leader Preparation

Physical fitness preparation is essential in order to handle the added stresses on your body in cold weather. Leaders of any age may wish to discuss a fitness regime with their doctor. It is often useful to slowly acclimate yourself to the cold and vigorous activity. Leader fitness provides a great role model to your Scouts.

Prior to a first cold weather campout leaders should study winter camping techniques, cold weather physiology and proper nutrition. There are many good resources available in print and on-line. A good first book is the BSA publication, Okpik: Cold Weather Camping. Additionally, in many regions there are winter camping courses taught by experienced winter campers both inside and outside of Scouting. Take advantage of all of these resources but keep in mind that the Scout Leader’s goal is to lead youth in winter activities that uphold the aims and methods of Scouting. You may find local Scouters in your council who would be willing to help you with cold weather camping.

As you learn various methods, try things out yourself at home or at a local park. Pitching a tent in your own backyard and sleeping out is a great way to test out your sleeping system. If you are getting cold make modifications, learning from the problems you face. Experience first hand getting up in the morning and preparing a nutritious breakfast. In this way you can test how your equipment works; you can analyze problem areas and make improvements. Selection of a winter campsite which offers protection from the wind is a priority.

Proper Nutrition

■Food = fuel

■Breakfast should give enough fat to satisfy the appetite.

■Lunch is abundant in high carbohydrate energy.

■Dinner includes the highest amount of protein.

■Nutritious high caloric snacks at any time of day

■Check out www.choosemyplate.gov

■Okpik:Cold Weather Camping book p.38

■BSA handbook p. 259

Two-deep leadership may never be more important than on a winter campout. A more severe, unforgiving environment requires leaders to be more alert and watchful and experienced. Leaders may want to bring extra clothing to use if a Scout gets wet or cold. Leaders will want to be vigilant to detect early stages of hypothermia, frost nip or dehydration.

Leaders should assure that the cold weather campout has program activities throughout the day and perhaps even a night hike or night snowshoe hike to provide learning opportunities and physical activity to keep the Scouts warm. Use of a buddy system, where the buddies check each other and help remove snow from the other’s clothes, gives the leaders another layer of watchfulness. Keeping dry and avoiding prolonged exposure to the wind are major safety issues that need attention.

**Practical Skills**

**A. Age and Skill Appropriate Program**

Most troops beginning a winter outdoor program will have Scouts of various ages and skill levels. Cabin campouts with plenty of outdoor activity allows younger Scouts to become familiar with the fundamentals of cold weather camping. Outdoor games and cooking as well as instruction on setting up a proper winter campsite would be good introductory topics. Older Scouts could camp outside with proper preparation and provide the younger Scouts with real life demonstrations of the fundamentals. In case of severe weather the cabin will be a fallback position for the troop. Younger Scouts will see the adventure awaiting them as they build skills. Older Scouts build confidence in their newly learned skills while providing role models and leadership to the troop. Clearly, moving beyond cabin camping requires an enthusiastic group of boy leaders to model and teach skills to the younger boys.

**B. Practice at Home**

As you begin to introduce winter camping to your unit, you may find that your troop meeting does not offer enough time to develop confidence and skills among the Scouts who are willing to try cold weather camping. You can use the weeks prior to your campout to build the anticipation for adventure. In fact, much of the confidence building can be done at home or in a few hours at a local park. After some detailed instruction at a troop meeting, have the Scouts (as buddies) sleep out in a tent in their own backyard, unheated garage or outbuilding, to test out their sleeping system. Ask the Scouts to report back on their test and tell what changes they would recommend.

On a weekend, go to a park and practice setting up tents and cooking using the troop’s stoves. It is very important to know how your equipment will function in the cold. For instance, some stoves may not work properly in cold weather. If you find that your stoves will not function well in cold temperatures you must replace them with models that do. Practice cooking high calorie meals in the cold or better yet, take food that has been prepared at home and needs only warming. Meal preparation is a good opportunity to re-emphasize the greater nutritional requirements for cold weather. Likewise, drinking more water is important to combat dehydration in a winter environment. If the Scouts understand the importance of eating a proper winter diet and drinking adequate amounts of water, the more likely they will be to eat and drink even though they may not be hungry or thirsty.

Often, beginning cold weather campouts require more equipment than Scouts can carry in their backpacks. Practice using toboggans, Klondike or plastic sleds to transport the equipment to a campsite. Interestingly, this technique can even be used when there is no snow on the ground to transport gear. Learn how to pack the sled properly and how to use teamwork to haul the gear.

Protecting the troop’s equipment is a major consideration on a cold weather campout. It is amazing how much troop and personal equipment is lost if it falls into the snow. In some regions of the country a cold weather campout can suffer from mud more than from snow. You may have to think of new ways to protect tents and other valuable troop assets from damage. Scouts will need to exercise forethought and follow the agreed-upon routine for dealing with mud.

Build interest and excitement in the cold weather outing early in the season. Perhaps the Klondike sled needs refurbishing or needs new tow ropes spliced. Some troops make gear for their winter outings such as hats, mittens or even snowshoes – there are easy-to-use patterns in the Okpik book. Sewing machines could be brought to a few troop meetings and used by the Scouts. When a Scout makes something he wants to try it out.

The older Scouts may be especially keen (and fit enough) to take on the challenge of a winter campout. For troops who are transitioning to more serious cold weather camping, it is helpful to work primarily with the older Scouts or an ad hoc Venture patrol. Discuss this option with your troop committee or district or council committee to seek input on how to expand your outdoor program. If you want to build the troop’s capability, a gradual or even long term approach may be needed. The committee will likely need to support more training for the leaders or senior Scouts to make this program available to the troop. The Klondike derby is a great way to engage the Scouts in cold weather skill building.

**C. Communication**

In the planning and execution stages of a cold weather campout you will need good communication to parents and Scouts. If you are beginning cold weather camping, parents will have questions, spoken or unspoken, about their child’s safety and leader qualifications. It’s vital to show them how the troop is preparing for the outing.

Parents will also want to know what they will need to provide and how they can help. This is wonderful. Involving them will increase your chances of success with the youth. Some parents may have a large yard that could be used for outdoor practice sessions. Invite parents to observe the training as they pick up their Scout. Tell everyone the plan for the campout, and the limits that the Scouts are preparing for. Explain to the parents and Scouts that a detailed checklist will be given to the Scouts and a thorough inspection of the gear will be done before they are allowed to go on a winter campout.

Scouts will need to know and practice the winter procedures you have set up. These include the procedure for mud, use of cold weather buddies and expectations for positive, helpful attitudes. Scouts should tell a buddy or adult leader if they are cold and need some help. Simply practice as a group saying, “Mr. (leader), I’m cold. I need help.” can break down the barrier that could lead to a cold injury or emergency. Once a Scout understands that it’s OK to say those words and knows the leader will respond in a helpful and empathetic way, then he will be more likely to let you know if he is uncomfortable.

The proper choice of clothing for a winter campout provides the first layer of defense against the unrelenting cold and wind. Communicate to the Scouts the difference between summer and winter clothing and the need to avoid cotton garments.

**Warm vs. Cold Weather Clothing.**

|  |  |  |
| --- | --- | --- |
| **Summer clothes** |  | **Winter clothes** |
| Let heat escape |  | Keep heat close to the body |
| Keep cool |  | Stay warm and dry |
| Let moisture escape |  | Allow moisture to escape when active |
| Loosely woven fabric |  | Retain 60% moisture on the skin |
| Cotton absorbs moisture |  | need to layer & ventilate |
| and promotes evaporation |  | wool and fleece work well |

Cotton is excellent for summer. When it is wet it cools the skin due to evaporation which is a cooling process. Cotton does not change its character in winter. It still cools you in the winter. Leave your cotton garments at home when the temperature is 50 degrees or less. Instead look at wools [merino and cashmere are great because they don’t itch], fleece, down, polypropylene, other synthetics and silk. Winter camping clothing can be more expensive than cotton clothing but it does not need to be too expensive and can be important for comfort and safety. Winter camping clothing should probably be reserved for actual camping and other winter outdoor activities to limit the number needed. For example, polypropylene undergarments should probably not routinely be worn daily to indoor school classes.

Thickness = warmth. It is the dead air spaces in the material which keeps you warm. Goose down, while very expensive is the lightest and best insulator because of its high loft, lightness and huge surface area. The dead air space in prime goose down is enormous [800 primaloft is great]. Get down wet, though, and the dead air spaces collapse, resulting in loss of insulation value. It’s the equivalent of wearing cotton. Wool will insulate even if it gets wet because the material does not collapse within itself. Fleece works well due to its thickness and the fibers do not capture water. Fleece will dry quickly if wetted. The biggest dangers to fleece are fire and heat. Fleece melts.

Nylons are good as the outerwear layer. If a nylon vest is worn next to the inner body all the moisture will be trapped and the inner clothes become drenched. Use a nylon vest for outerwear only. A wool or fleece vest works well next to the inner body because moisture is wicked from the body and moves to the outer layers. Waterproof, breathe-able fabrics work well at temperatures above freezing. Below these temperatures these fabrics begin to shut down because the moisture can cool and condense inside the fabric. If temperatures are cold enough an ice can actually form inside the garment.

The following is an after event report of an actual campout. Note the items that are discussed.

**Reflections on an Actual 6-Adult Cold Weather Campout:**

Weather conditions: 10 degrees F down to -16 degrees F

Friday night: clear skies, 0 degrees F. About 2 feet of snow and a full moon.

Saturday: -16 degrees F, clear skies.

Sunday: 10 degrees F, 8 inches new snow.

**WOW Factors**:

■Small items disappear when dropped in snow.

■All food products containing water freeze solidly.

■Check your camera’s temperature specs [LED’s Freeze!]

**PREPARATION at HOME**

Checklist of what each person is carrying.

Find out the winter requirements of the area [i.e. snowshoes or skis were required in the backcountry and trails but crampons were not allowed for hiking]

Test the equipment at home in the coldest possible conditions [place stove and fuel in freezer for over 2 hours and then try to light the stove].

Need to find better vapor barrier liner bags for the feet. Thin grocery store plastic bags did not hold up.

Snowshoes – try them out several times before hitting the trail. Take extra straps in case binding fails. Look at points where snowshoe might fail and bring extra parts.

One multi-tool was useful for minor repairs. A “possible kit” with other small tools and repair items should be carried for the group.

Maximum preparation and minimum operation worked best – pre-cut and separate the breads [use wax paper to separate since wax paper is edible and burnable]; cut cheese and sausage into bite size chunks.

Pre-pack clothes as wearing units in zip lock bags or other waterproof bags.

Clothes you’ll be changing into after the ride to the campsite should be immediately available.

Test boots in coldest possible weather. If using pack-boots, bring extra liners.

**GEAR**

White gas 1-mantle lantern worked well

Some stoves took a long time to boil the amount of water required for the group and they were noisy.

One stove caught on fire due to a leaking gas connection. The generator had to be well pre-heated to start this stove at cold temperatures.

Have a back-up stove.

Fire ribbon was pliable at -16 degrees F.

Wet metal spoons and forks froze onto lips, tongue while eating. Very uncomfortable. USE PLASTIC

Bring a pocket knife with a wooden handle.

Metal pots and dutch ovens [anything that can go into a wood fire] worked great.

Ax and saw – NO metal handles

Removal of metal tent pegs from the frozen ice/ground was a big problem – look into use of dead-men [logs or snow-bags].

Plastic sleds worked great to transport gear. Wrap the gear in a tarp and strap or tie the gear package into the sled.

Insulated bottles froze at these temperatures.

Closed cell foam pads for sitting and kneeling keeps your clothes dry and warm.

Bring a supply of fresh matches and multiple striking mechanisms

Carry a Magnesium bar and striker

Carry dry tinder and fire starters

Carry a butane lighter.

A pair of ski goggles protects your eyes from wind and snow.

Wide mouth water bottles should be used rather than narrow mouth ones.

Bring something to sit and recline on rather than standing. Rest the back & legs.

Bring a portable grate for the wood fire. Not all campfire rings will have a fire grate attached.

Cooking pots need a large bail for easy handling.

Snow shovels were useful for campsite setup, preparing a winter kitchen area, snow benches, etc.

Thermometer required – bragging rights and the knowledge of what’s failing due to the temp.

Have large handles on utensils [to use with mittens].

Comfort items: plastic mugs with a good lid design, snap off lid. Take lid off when not in use to avoid freezing shut.

Have a pair of heavy duty leather gloves for work around fire or with metal tools & equipment.

**FOOD & WATER**

Maximum preparation and minimum operation worked best – pre-cut and separate the breads [use wax paper to separate slices]; cut large foods into bite size chunks.

Heavy duty foil was extremely useful.

A lot of water was required. Have means to heat copious amounts of water.

Toaster-type grill placed over the fire worked well for foods that needed only warming.

Precooked hash brown potatoes were a big hit.

Dried foods that were reconstituted at the campsite work well [there was no water to freeze them solid]

Store extra water bottles upside down in a snow bank to keep from freezing. No snow??? Place water in a pot near the fire.

**FIRE**

Wood fire worked better than gas stoves when substantial supply of wood is readily available.

Portable wood stove – 2 recycling totes of split wood was adequate for 2 nights at -16 degrees F

Firewood for outdoor pit – 2 wheelbarrow loads of medium to large split wood was enough for cooking.

Dutch oven required extra wood/charcoal to heat it up in these cold temperatures.

**CLOTHING**

Pre-pack clothes as wearing units.

Clothes you’ll be changing into after the ride should be immediately available.

Have chemical hand warmers immediately available, on your person, at all times.

Place a hand warmer in same pocket as the camera.

Keep some hand warmers [unopened] in pockets close to the body to pre-warm the packets.

Activate a chemical hand warmer on a warm surface with frequent shaking and turning to accelerate the exothermic reaction.

A 200 or 300 weight fleece neck gaiter around the neck and jaw and another one as a hat was great.

A 200 or 300 weight extended balaclava was great for sleeping comfort.

Pre-warm boots in the morning with water bottles filled with hot water.

Mittens and wrist warmers worked when worn together. Bring extra of each.

**Clothing at -16 degrees F:**

■Fleece long johns tops and bottoms

■2 over the calf socks, both wool

■Cashmere sweater from a second hand store

■Fleece jacket

■Add a windproof fleece vest.

■Add wool pants or waterproof breathable/fleece pants over the long johns.

■Add 2 neck gaiters or 1 hat gaiter and an extended balaclava

■High quality insulated boots.

Sunglasses are required to protect the eyes.

**SLEEPING**

Sleep with battery operated equipment.

Fleece blanket around top of head or top of body worked well.

Wool blankets underneath you in addition to your sleeping pad helps stop conduction.

Vapor barrier bag inside the sleeping bag helped keep the sleeping bag dry and frost free.

**LAST – NOT LEAST**

**If someone is cold, do not let up until you have them warm.**

Credits:

1 Sherrill & Norma Puckett ©TXul-340-404 2007

**Equipment**

**Sleeping bags**

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|  |

When it comes to evaluating camping sleeping bags there are many factors that you’ll want to review and evaluate before you buy one. It’s a choice of comfort and climate. Pick the sleeping bag that is right for you. If most of your campouts are summer outings and hikes, an 800-fill down sleeping bag might not be the smart choice. On the other hand, if you’re doing a winter weather campout, that cotton flannel-lined sleeping bag that’s rated to 40 degrees F will leave you shivering all night!

Aside from the price of camping sleeping bags, you’ll want to evaluate factors such as the material, the temperature rating, the durability, the size, and the weight. Compare these factors and determine where, when, and how often you’ll want to use your sleeping bag. Knowing this will help you get the most *bag for your buck*!

Below are some factors to consider for your camping sleeping bag purchase:

**Shell Material**

The high-quality camping sleeping bags will usually have a shell made of rip-stop nylon with a hatched fiber pattern. This is a very durable material that will keep the sleeping bag insulation materials in and the moisture and dirt out. Sleeping bags of lower quality will use thin, lighter weight nylon or polyester materials. The shell material, the zipper type, and the sewing of the seams are all good areas to evaluate for durability. For the annual one-night camping trip, the lower quality bags work out just fine. For extended trips and frequent use, factors like the shell material could make the difference between a sleeping bag that lasts…and one that does not.

**Insulation Material**

Pound for pound, down insulation will keep you warmer than synthetic fibers. However, down feather quills can have a way of poking through in lower quality sleeping bags and when damp or wet, down loses more of its insulation quality than synthetic fibers. If choosing a down sleeping bag, look for bags with down-proof shells, high density nylon, and other indicators of high quality materials that will isolate the down feathers. If you’re hiking or camping in rainy or humid climates or around streams and rivers, synthetic insulation is probably the better choice. Synthetic insulation works very well, even when damp, but is slightly heavier than a sleeping bag with down-fill insulation.

**Temperature Rating**

Many hikers and campers will tell you that the temperature ratings of sleeping bags are hogwash. I prefer to think of them as an approximation. Everyone is different. Some are comfortable sleeping with socks and layers of pajamas…others are not. Metabolism can make some warmer than others. Women tend to lose more heat during sleep than men. And the list of differing comfort factors goes on. Choose a camping sleeping bag that suits your needs. If you’re going on a campout where the temperature might dip into the 30s, look for a sleeping bag rated to 20F. If you get too warm, you can always unzip the bag a bit, but there’s no easy solution if you get too cold!

**Size & Shape**

A sleeping bag’s size and shape can have just as much impact on comfort as its temperature rating. Make sure that your sleeping bag is long enough for YOU and choose the shape that fits your sleeping style. For example, I like the room of the rectangular bags on summer campouts so that I can toss & turn, but I prefer the mummy style bags on cold weather camp outings when I’m trying to stay warm. Pay attention to these factors, as a short or overly-restricting sleeping bag could make for a miserable outing.

**Weight**

The weight of your sleeping bag is more of a factor for backpacking and hiking trips, than it is for the mini-van camping trips. Having a sleeping bag that’s a pound or two less than another one can be a big deal if you’re carrying all of that weight on your shoulders day after day. The down-filled sleeping bags are typically lighter (and more expensive) than their synthetic-fiber counterparts, but as discussed above there are pros & cons to both insulation types. Take a look at the sleeping bag’s weight when comparing them, as it could be an important factor.

It can be overwhelming when trying to pick out the right camping sleeping bag. Don’t worry. Just take some time to choose the right one for you. If you’re choosing one for a 1-night scout outing in the middle of the summer, a sleeping bag rated to 40 degrees F might be the best economical choice for you. If you’re looking for something to endure multiple outings, backpacking, and cold-weather trips, you might want to look at spending some more money on a lightweight, durable, cold-weather product. Now that you know the factors to consider, best of luck on your purchase

**TENTS**

In shopping for tents, you can certainly find a very reasonable priced tent. But is it the quality you need for camping? Your tent should have aluminum poles, should be equipped with a footprint (tarp that is placed under the tent), rain fly and possibly some storage nets that can hang equipment above you. Check the stitching as well. If the stitches are far apart, there is great chance for ripping and leaking. Better to spend more money for a tent that will last a lifetime. Look for a tent that is made of polyester, which breathes and can withstand the sun's rays. Do not purchase a nylon tent, which will be hot and may not last a season. Never purchase a tent that does not come with a rain fly. And if your tent does not come with seam sealer, be sure to purchase some before you camp.

**Type**

There are several types of tents - from domes to cabin-style with many in-between. They are rated for three or four season camping. If you only camp in the spring, summer and fall, a three season tent is a good choice. Four season tents are a must for those who camp in the winter. They will withstand snow, wind and cold - they can also be converted to a three season tent with fewer poles and less weight. Never camp in the winter with a three season tent.

Dome tents provide good head room, can withstand wind and don't pool rain water on the top. Cabin styles are excellent family tents, allow for more gear, head room and with a good rain fly, can also withstand rain. Your tent should have a footprint, which will protect the tent from rocks and moisture. Never use a tarp or footprint that extends outside of the tent - this will serve as a funnel for water to flow under your tent during rainstorms. If your tent has a vestibule, consider this a bonus. You can place a doormat inside the vestibule to catch dirt, and can store gear just within your reach. The vestibules in cabin style tents are wonderful areas to sit and enjoy the outdoors with fewer mosquitoes and flies to bother you. They are also nice areas to sit during the rain .Your tent should have mesh windows on at least two sides, and preferably on top as well. These can be closed as it gets cooler, and a rain fly can be placed over these in wet conditions. Windows will allow for cross-ventilation, and will be much appreciated on hot, muggy days.

**Weight:**

Obviously, the bigger the tent, the more weight you carry. If you are family camping and can drive to your site, a cabin style may be heavier, but is still a nice thing to have. If you are backpacking, purchase a light tent specifically made for that style of camping. Scouts do well with two man tents that have aluminum poles and can be strapped to a backpack when bagged.

Other notes—a smaller tent will help hold in body heat better than a large one. Also you can bring an extra tarp to tie down over the tent if it does not have a full length rain fly. This will provide better wind protection as well as help trap heat inside the tent.

**Clothing**

After tent and sleeping bags, clothing is the most important key to a successful cold camping trip. You need to layer your clothes, and be sure they are not too tight. Loose clothing is more insulating and can keep you warmer. Begin with long, thermal polypropylene underwear. If you do not have this, wool is your next best choice. Never wear cotton clothing when camping in the cold. It is not a good insulator, and if wet, will chill you quickly. Wool, gore-tex and polypropylene clothing will wick the moisture away from your body. Begin to layer your clothing, preferably with the types above. Do not use jeans, which are cotton and will become easily wet and cold. Old wool military uniforms can be found at thrift stores, and are good for this type of camping. Again, layer with loose fitting clothing. In an emergency, paper can be placed under clothing as an insulator.

Your choice of coatis important. Be sure it is meant for extreme cold, and is large enough to wear around your layers without being tight. A coat that has a hood will help to keep your body warm, and will keep rain and snow off of your neck.

Always wear a hat. In extreme cold, you may choose a ski mask for extra warmth. 90% of your body heat can be lost through your head. Keep a warm hat on at all times.

For your feet, start with thinner wicking socks, and finish with wool socks over them. Any boots or shoes you wear should be waterproof. Do not wear tennis shoes, and do not wear tight leather boots either. Your feet need to be able to move - especially your toes. Big rubber over boots are good to place over shoes, with the socks underneath. Tuck your pants into your boots, and use duct tape to keep them in and snow out. If you are camping in snow, be sure to whisk off your boots before entering your tent.

Both gloves and mittens. Gloves for working around camp, mittens to keep your fingers warmer.

Duct tape to hold pants in boots. Gaiters also work to keep moisture off pants and out of boots.

Extra clothing so you can change often, especially in wet weather.

Knit hat and ski mask.

Scarf or neck gaiter, or balaclava

This is not a comprehensive list, and each campout is different. Plan accordingly

**MEALS**

Most important to realize is that you will require a greater calorie intake in cold weather. In addition to increased activity, increasing your metabolism is a good way to increase your warmth. A proper diet should be high in carbohydrates and protein.

Many of the menus have already been planned and approved by the adults. However, we would recommend sending some extra snacks along for the trip. Rather than sending cookies and chips, replace them with cheese and crackers, granola bars, and trail mixes. Foods high in protein result in a slow release of body heat as your metabolism digests the foods. Candy and other high sugar foods result in a quick release of body heat that causes your body temperature to drop below what it was originally.

Ultimately, it is important to have a high calorie diet that is high in protein and carbohydrates Eat complex carbs such as starches. Avoid caffeine and high sugar snacks such as chocolate.

Rely on a camp stove rather than a fire for cooking in cold weather.

■Food = fuel

■Breakfast should give enough fat to satisfy the appetite.

■Lunch is abundant in high carbohydrate energy.

■Dinner includes the highest amount of protein.

■Nutritious high caloric snacks at any time of day

■Check out www.choosemyplate.gov

■Okpik:Cold Weather Camping book p.38

■BSA handbook p. 259

**Campfires**

**When planning any campout, check with local authorities to determine if any burn bans are in effect.**

It should also be determined if firewood may be gathered or if it needs to be brought in.

Campfires can be built on metal trash can lids to avoid having the fire sink into the snow or wet ground. Again, if you are relying on your fire for heat, you are not dressed properly. Bring dry wood and tinder from home if possible.

**Fire Starters**

Fire starters can usually be purchased anywhere camping items are sold. Their base is a compacted sawdust, and will surely start your fire with ease.

**Fire Tubes**

You can make your own fire starters with toilet tissue or paper towel tubes. Stuff these tubes with newspaper before your trip, and place them inside your tinder pile.

**Do the Laundry**

Yes, doing your laundry at home can benefit you at your campsite! Every time you empty your dryer screen, save the lint in a nearby can or bag. Use the dryer lint to start your campfire!

**Egg Cartons**

Place charcoal in paper egg cartons, then light to start the fire.

**Cotton Balls**

Rub Vaseline into 100% cotton balls. Leave in a ziplock back until you are ready to use them.

**Emergency Candles**

Wrap an emergency candle in wax paper, twisting at both ends. Light one end when ready to start your fire.

**Dip Dip Dip**

There are many things you can use for fire starters that involve melted wax. Make these before your trip, allow to dry and pack them for camping. Be sure not to leave these where they can melt.

To melt your wax, use a double boiler and be careful not to ignite the wax. Use wax for the following fire starters:

* Roll strips of newspaper together, tie with string and dip in melted wax.
* Dip cut pieces of cotton string into wax. Let dry and store.
* Use little drink cups (like "Dixie Cups") for fire starters by placing a cotton string in the cup, having the end hang over the edge. Fill the cup 3/4 full with sawdust. Pour in melted wax. Let dry. When camping, use the string as your wick.

**Difficult Campfire Conditions**

Cold or wet weather camping provides a challenge when building fires. Before your camping trip, drip wax onto cotton balls and let dry. Place the cotton balls in your tinder when building your fire. As your cotton balls burn, the wax will keep the flames going long enough to start your fire in windy, cold or wet conditions.

**Cold Weather First Aid**

This subject always becomes an important topic that I hope no Scout will ever have to use. However, up to date knowledge is of extreme importance. In addition to basic first-aid skills that many of the Scouts are educated on, cold weather first aid concerns and safety issues often take precedence on cold weather outings. As a refresher to cold weather first aid, it is important to review common problems and remedies found in cold weather camping:

|  |  |
| --- | --- |
| **Dehydration:** | Excessive loss of body water that impairs the ability to reason, so the victim may not react properly. Prevention: 1) Drink at least 2 quarts of water a day 2) Avoid dehydrating foods (High Protein) and fluids (coffee, caffeine). Treatment includes increasing liquid intake and keeping warm. Severe cases require immediate medical attention. |
| **Hypothermia:** | Lowering of the inner core body temperature. Can and usually does happen in temperatures above freezing. The victim may not recognize the symptoms and may not be able to think clearly enough to react. Injury or death may result. Prevention includes good nutrition, consumption of high-energy foods, proper clothing, and increased activity. Treatment includes providing shelter and warmth for the victim from the elements, hot drinks followed by candy or other high sugar foods to jump start the metabolism, and increasing body heat through huddling. If hypothermia is suspected medical attention should be contacted as quickly as possible. |
| **Frostbite:** | Tissue injury involving the actual freezing of the skin and underlying tissues. Recovery is slow. Once exposed, the victim will be ***predisposed*** toward frostbite in the future. Prevention includes proper clothing, good nutrition, drinking fluids, immediate treatment of minor symptoms, and use of the buddy system to check face, nose, and ears of fellow Scouts. Treatment includes warming area through exercise, heat, or water (Do not rub with snow). |
| **Snow Blindness:** | Inflammation of the eye caused by exposure to reflected ultraviolet rays when the sun is shining brightly on an expanse of snow. Prevention includes wearing sunglasses when any danger is present. Treatment includes blindfolding the victim, rest, and avoided future exposure. Snow Blindness heals in a few days without permanent damage. |

**Conclusion**

A year-round outdoor program is of great benefit for all troops. Cold weather camping, however, presents some of the most challenging conditions, requiring preparation similar to other high adventure outings. This supplemental training was designed for leaders who want to expand their outdoor program to include cold weather camping. While you should consult other resources on winter techniques, this training has highlighted the leadership and practical approaches to consider when your troop starts to plan for cold weather camping.

Develop a plan to build the skills necessary to lead a cold weather outing. Once the leadership skills are in place, show the Scouts the adventure of winter camping safely, a bit at a time. Opportunities to learn winter techniques and practice skills in small steps, even at home, will build confidence. Parents will appreciate the approach of added training prior to a winter campout. Scouts discover they can meet the challenge to thrive in the cold. You’re in for a great adventure!

**Tips for Cold Weather**

Fail to Plan = Plan to Fail Planning is THE most important aspect of cold weather camping

Always bring a bit more than what you think you'll need – water, food, clothes.

Make sure that you have a good knowledge of the signs of frostbite and hypothermia. You should be able to recognize it in others and in yourself. Tell someone right away if you or another scout is showing signs of cold-related problems.

Stay hydrated. It’s easy to get dehydrated in the winter. Eat and drink plenty of carbs.

Keep out of the wind if you can. A rain fly for a tent can be pitched to serve as a wind break. The wind chill factor can often be considerable and can result in effective temperatures being much lower than nominal.

Bring extra WATER. It’s easy to get dehydrated in the winter. You aren’t visibly sweating, so you don’t think to drink water, but since the air is so dry, you lose a LOT of water through breathing. Drink lots of water!

Bring extra food that doesn’t need to be heated or cooked. Granola bars, trail mix, etc.

Keep a pot of hot water available for cocoa or Cup-a-Soup – these warm from the inside.

Always eat hot meals (breakfast, lunch, & dinner.) Dutch ovens are the best – they keep the food hot longer. It doesn't need to be fancy DO cooking. Meals should be 1-pot meals to keep cleanup to a minimum. Don't get too fancy with the meals - it's hard to chop onions & carrots at -10ºF with gloves on. Prep all meals at home in the warmth of the kitchen.

Shelter the cooking area from wind (walls of tarps, etc.)

Fill coffee/cook pots with water before bed. It's hard to pour frozen water, but easy to thaw it if it's already in the pot.

Remember C O L D:

**C** Clean - dirty clothes lose their loft and get you cold.

**O** Overheat - never get sweaty, strip off layers to stay warm but no too hot.

**L** Layers - Dress in synthetic layers for easy temperature control.

**D** Dry - wet clothes (and sleeping bags) also lose their insulation.

COTTON KILLS! Do not bring cotton. Staying dry is the key to staying warm. Air is an excellent insulator and by wearing several layers of clothes you will keep warm.

Remember the 3 W's of layering - Wicking inside layer, Warmth middle layer(s) and Wind/Water outer layer. Wicking should be a polypropylene material as long underwear and also sock liner. Warmth layer(s) should be fleece or wool. The Wind/Water layer should be Gore-Tex or at least 60/40 nylon.

If you’re camping in the snow, wear snow pants over your regular clothing

Bring extra hand covering - mittens are warmer than gloves.

Bring 2 changes of socks per day.

Everyone must be dry by sundown. No wet (sweaty) bodies or wet inner clothing.

Use plastic grocery bags or bread bags over socks. This keeps your boots dry and you can easily change those wet socks.

Keep your hands and feet warm. Your body will always protect the core, so if your hands and feet are warm, your core will also likely be warm. If your hands or feet are cold, put on more layers, and put on a hat!

Dress right while sleeping. Change into clean, dry clothes before bed. Your body makes moisture and your clothes hold it in - by changing into dry clothes you will stay warmer and it will help keep the inside of your sleeping bag dry. Wearing wool socks and long underwear (tops and bottoms) in the sleeping bag is OK.

Put on tomorrow's t- shirt and underwear at bedtime. That way you won't be starting with everything cold next to your skin in the morning.

Wear a stocking cap to bed, even if you have a mummy bag.

Put tomorrow's clothes in your bag with you. This is especially important if you’re small of stature. It can be pretty hard to warm up a big bag with a little body, the clothes cut down on that work.

Put a couple of long-lasting hand warmers into your boots after you take them off. Your boots will dry out during the night.

Fill a couple of Nalgene water bottles with warm water and sleep with one between your legs (warms the femoral artery) and with one at your feet. Or use toe/hand warmers. Toss them into your sleeping bag before you get in. Some of the toe/hand warmers will last 8 hours.

Eat a high-energy snack before bed, then brush your teeth. The extra fuel will help your body stay warm. Take a Snickers bar to bed and eat it if you wake up chilly in the night.

Use a sleeping bag that is appropriate for the conditions. Two +20ºF sleeping bags, one inside the other will work to lower the rating of both bags.

Use a bivvy sack to wrap around your sleeping bag. You can make a cheap version of this by getting an inexpensive fleece sleeping bag. It isn't much more than a blanket with a zipper but it helps lower the rating by as much as 10 degrees.

Use a sleeping bag liner. There are silk and fleece liners that go inside the sleeping bag. They will lower your sleeping bag's rating by up to 10 degrees. Or buy an inexpensive fleece throw or blanket and wrap yourself in it inside the sleeping bag.

Most cold weather bags are designed to trap heat. The proper way to do this is to pull the drawstrings until the sleeping bag is around your face, not around your neck. If the bag also has a draft harness make sure to use it above the shoulders and it snugs up to your neck to keep cold air from coming in and warm air from going out.

Don't burrow in - keep your mouth and nose outside the bag. Moisture from your breath collecting in your bag is a quick way to get real cold. Keep the inside of the bag dry.

Put a trash bag over the bottom half of your sleeping bag to help hold in the heat. A zipped up coat pulled over the foot of a sleeping bag makes an extra layer of insulation.

Don't sleep directly on the ground. Get a closed cell foam pad to provide insulation between your sleeping bag and the ground. A foam pad cushions and insulates. The air pockets are excellent in providing good insulation properties. Use more than one insulating layer below you – it’s easy to slide off the first one.

In an emergency, cardboard makes a great insulator. Old newspapers are also good insulation. A layer of foam insulation works too.

Bring a piece of cardboard to stand on when changing clothes. This will keep any snow on your clothes off your sleeping bag, and help keep your feet warmer than standing on the cold ground.

A space blanket or silver lined tarp on the floor of the tent or under your sleeping bag will reflect your heat back to you.

No cots or air mattresses! Better to lay on with 30º earth instead of –10º air.

Sleep in quinzees or igloos. These are warmer than tents since you’ve got an insulating layer of snow between you and the outside air, instead of just a thin nylon layer.

If in tents, leave the tent flaps/zippers vented a bit, it cuts down on interior frost.

Drain your bladder before you go to bed. Having to go in the middle of the night when it is 5 degrees out chills your entire body. Drink all day, but stop one hour before bed.

Use anti-perspirant on your feet to help prevent sweating.

Have extra water filtration or treatment capability for emergency use

**Some Tips and Ideas for Camping in Extreme Heat**

Living in Texas, we are probably much more familiar with extreme heat and the problems associated with camping out. Unlike cold weather, when you can always put on more clothes or add blankets, there is a limit to how many clothes you can remove to stay cool. Probably the most important issues are dehydration and heat- related illness and injury, and how to prevent them. Here are some tips for dealing with the heat.

Understand that sweating is how your body cools off. If you are in an area that is very humid, your skin may have a tough time cooling down because the moisture doesn’t evaporate easily. To encourage evaporation move around and try to camp in the breeziest areas you can find.

You will need to replace the water you lose through perspiration. Drink enough water to keep your urine light colored or clear. If your urine is dark, your body needs more water. Avoid caffeinated drinks because they take fluids from the body.

Try to perform any high-intensity activities early in the morning when it is cooler: Hiking, climbing or cycling are best completed early to avoid the heat of the afternoon.

If camping near a lake or river, make sure to follow any special park or local regulations, as well as any applicable safety measures necessary. SAFETY IS PARAMOUNT.

Keep air circulating in your tent. Align your tent with the wind, open any window flaps, remove the rain fly, or purchase a battery operated fan.

Wear light colored fabrics that breathe. Polyester or nylon works well and dries quickly. Wear a hat. Lightweight long sleeve shirts are useful to protect against the sun.

If you find yourself in a camping area that is infested with biting bugs, you’ll need to wear a long sleeved shirt and long pants. Apply a DEET-based insect repellent and pay special attention to your neck, ears, hands, and ankles.

Wear a waterproof sunscreen and lip balm that is at least SPF 15. Re-apply frequently, especially if you are in water. Bring a shirt to wear in the water, and keep a hat on at all times where practical.

Sunglasses are a must, especially on or around the water. Your eyes *can* sunburn, and it is not pleasant.

If you can’t find a shady spot to camp, make a canopy out of a tarp by tying it between trees.

Make sure you have the correct season rated sleeping bag. You will be miserable if you are in a winter bag. Lighter and cooler bedding works the best in the summertime. Using a cot or air mattress can help keep you cooler..

If you are camping in a dry, hot region and you don’t expect rain or high humidity, you can remove the rain fly from the tent.

Sleeping in a tent may be too hot and stuffy. If you sleep on the ground outdoors put a sleeping pad beneath you.

Have two coolers. One should be for drinks only. The other should be the designated food cooler. Having two coolers will keep your food nice and cold as it won’t be affected by the constant opening and closing of the cooler that occurs when people go after drinks.

If you plan to camp for more than two days in the heat, you will need to have finished off the food that you’ve brought that needs to be cold, or you’ll need to go for more ice.

Educate yourself and learn how to recognize and treat health problems that could result from hot weather.

Here are the most common heat related illnesses:

**Heat rash** -- also called prickly heat or miliaria -- is a common condition in which areas of the skin feel prickly or sting due to overheating. Heat rash looks like tiny bumps surrounded by a zone of red skin. It usually occurs on clothed parts of the body, such as the back, abdomen, neck, upper chest, groin, or armpits and usually gets better once the skin is cooled.

**Heat cramps**-- which occur in muscles after exercise because sweating causes the body to lose water, salt, and minerals (electrolytes).

**Heat edema**-- (swelling ) in the legs and hands, which can occur when you sit or stand for a long time in a hot environment.

**Heat tetany**-- (hyperventilation and heat stress), which is usually caused by short periods of stress in a hot environment.

**Heat exhaustion**-- occurs when a person can't sweat enough to cool the body. It generally develops when a person is working or exercising in hot weather. Symptoms of heat exhaustion include fatigue, weakness, headache, dizziness, or nausea, and the skin is pale, cool, and moist. Mild heat exhaustion does not cause a change in a person's mental alertness and usually can be treated at home. Moderate to severe heat exhaustion can sometimes lead to heatstroke, which requires emergency treatment.

**Heatstroke--** occurs when the body fails to regulate its own temperature, and body temperature continues to rise.

Symptoms of heatstroke include:

Unconsciousness for longer than a few seconds.

Confusion, severe restlessness, or anxiety.

Convulsion (seizure).

Symptoms of moderate to severe difficulty breathing.

Fast heart rate.

Sweating that may be heavy or may have stopped.

Skin that may be red, hot, and dry, even in the armpits.

. **Heatstroke is a life-threatening medical emergency, requiring emergency medical treatment.**

This is just the beginning of what you should know, and do, if you are going to be camping in hot weather. It’s a good idea to read a hot weather survival manual before you embark on any major camping trips in very hot regions.

compiled for the use of Wichita Falls Troop 22 Jan. 2013

**Sources:**

***Scouting*** magazine. January/February 2013 issue

Boy Scout Trail <http://www.boyscouttrail.com/library/wintercampingtips.asp>

Camping-Field-Guide.com <http://www.camping-field-guide.com/camping-sleeping-bags.html>

BSA Troop 301 <https://sites.google.com/site/boyscouttroop301/Resources/notes-and-hints-from-previous-scouts/coldweathercamping-youcandoit>

Campfish.com <http://campfish.net/coldweathercamping.php>

CBN.com <http://www.cbn.com/entertainment/Sports/Coates_ColdWeatherTips.aspx>

Essortment <http://www.essortment.com/camping-tips-prepare-survive-unexpected-extreme-weather-31363.html>

BSA <http://www.myscouting.org>

All Campgrounds <http://www.allcampgrounds.com/articles/tips/hot-weather-camping.html>

Web MD <http://firstaid.webmd.com/tc/heat-related-illnesses-topic-overview>