



WINTER CAMPING

Comfort in the Cold

As temperatures drop and winter sets in, the backcountry transforms into a challenging landscape where even the most familiar meadow can sparkle with ice and snow. Vistas open as trees lose their leaves. The air is crisp, the quiet broken only by the crunch of boots on snow. A day of traveling across the snow and a cozy night camped beneath a frosty sky are pleasures reserved for those who have learned to thrive even as the thermometer falls into the hibernation range.

Living well in the cold involves a set of skills that can greatly expand your opportunities for outdoor adventure. If you dream of mountaineering, your routes are likely to take you to heights where you'll need to be prepared to handle chilly winds, sleet, and snow. Winter travels in desert regions can be very cold, too, presenting unique sets of challenges for anyone venturing very far from a road.

You don't have to be scared to venture out in winter, however; you just have to be prepared. That's what this month's meetings and main event are all about.

Objectives

This month's activities should:

- Teach youth the potential dangers of cold-weather camping.
- Show youth how to dress in the winter using the standards of wick, wind, and warmth.
- Explain how food is essential to keeping warm.
- Teach the essentials of cooking when it is cold.
- Teach youth how to build winter shelters.
- Help youth explore the activities winter has to offer, such as skiing, snowboarding, skating, and survival
- Demonstrate winter rescue methods

RELATED ADVANCEMENT AND AWARDS

- Tenderfoot, Second Class, and First Class camping requirements
- Backpacking, Camping, Emergency Preparedness, Hiking, Safety, Search and Rescue, Skating, Snow Sports, and Wilderness Survival merit badges
- Cross-Country Skiing and Snow Camping Varsity Scout activity pins
- Ranger: Winter Sports elective
- Quest: Requirement 5



Leadership Planning

As a leadership team, you may want to discuss the following items when choosing winter camping as your program feature during your planning meetings.

1. Where should we go winter camping?
2. Are we going to camp in tents or snow shelters?
3. Do we have the proper equipment for this activity?
4. What other activities will be done during our main event?
5. What is our menu plan? Will our meals provide enough calories to keep us warm?
6. How can we involve parents?
7. What changes should we make to the sample meeting plans that would fit our needs better?

PARENTS CAN HELP WITH THE WINTER CAMPING PROGRAM FEATURE BY:

1. Assuring each youth has the appropriate winter camping clothing
2. Providing transportation for the main event
3. Helping to prepare food
4. Identifying consultants who can teach advanced skills
5. Coordinating money-earning projects if the main event will be expensive

INFORMATION SPECIFIC TO WINTER CAMPING

Snow Shelters

Before anyone begins the actual work, make sure everyone is dressed properly. Wear layers and a waterproof shell. Layering allows you to remove clothing as you work and get warmer. You will also need to be careful not to get your clothing wet as you dig, either by sweating or by snow melting and soaking into the fabric. Remember: Dry is warm.

A snow cave provides terrific protection in the worst winter storms. The drawback is that it takes a good deal of time to construct. There are four main steps in building a snow cave:

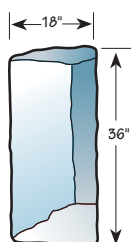
- Choose the site.
- Tunnel in.
- Shape the cave.
- Add finishing touches.

Choosing the Site. Choose a spot that is free of any avalanche danger and that will provide a flat and stable base. Look for a drift or swale near ridges or trees. A cave with its entrance on the leeward side of a slope will offer additional protection from the wind. Form snow into a pile at least 5 or 6 feet high and 10 to 12 feet in diameter—large enough to accommodate the number of people to be sheltered.

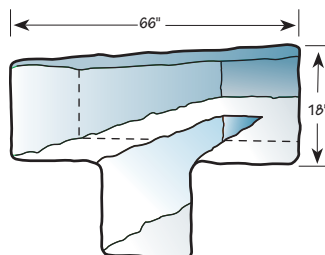
Allow the snow to settle and bind together for strength and stability. Leave it alone for several hours before any digging is attempted. This binding time varies depending upon the type of snow, the moisture content, and the air temperature. In some conditions, such as dry, granular, or corn snow, more time may be required for the crystals to bond. If your group is large, it may be easier and more effective to build several smaller caves. In some cases the crystals may not bond at all and other types of shelters must be considered.



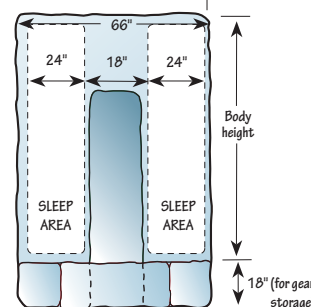
1. Dig an entrance about 18 inches wide and as high as your chest.



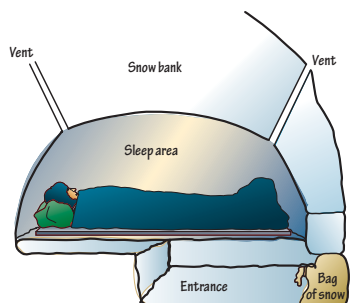
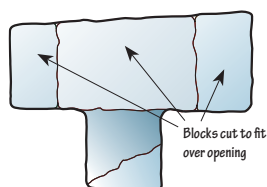
2. Widen the top to form a T shape.



3. Dig several feet farther into the drift and excavate the interior of the cave. The floor of the cave will be at about waist level, so much of your digging will be upward and to the sides.



4. When the interior space is fully formed, use blocks of snow, bags of snow, or snowballs packed together to seal the top of the T.



5. Use a ski pole or shovel handle to poke several ventilation holes in the ceiling at a 45-degree angle to the floor.

Preparing to Dig. Large scoop shovels are good for digging. Smaller avalanche shovels also work well. In an emergency situation where a shovel is not available, a small cooking pot, a snowshoe, a ski, or even a signal mirror will work. Use whatever you can, including your hands.

Tunneling In. In deep snow, start by digging a trench downward. As you dig, snow that is being removed to form the trench should be placed on the roof area of the cave. Make the trench as deep as you are tall. Then begin tunneling in. Form the entrance at about knee level and make the tunnel slightly wider than your body. If the terrain and snow depth allow, tunnel at a slight upward angle so that the end will be at least a foot higher than the entrance. Because the tunnel slants upward, rising warm air will not escape through it and heavier cold air will not seep in from the entrance.

If possible, make the tunnel the length of your body. At the upward end of the tunnel, hollow out a space as large as your body. Moving the snow then becomes a major task. Hold the shovel in front of your body to dig in. As you move forward, use your feet to move the snow into the tunnel and out of the entrance. Now you are ready to begin shaping the cave.

Shaping the Cave. The cave walls should be at least 12 inches thick to create a stable and well-insulated structure. Excavate a dome-shaped space at the top of the tunnel, judging the thickness of the roof by watching from the inside for a light blue color in the snow that indicates the wall thickness is about right. An elevated sleeping platform is important because it puts you close to the warmer air in the upper part of the cave. Initial shaping can be done with a shovel doing the bulk of the work; final shaping is best done with a gloved hand.

Adding Finishing Touches. Smooth the curved roof to remove sharp edges that may cause moisture to drip onto your gear as the temperature in the cave rises. Finally, use a ski pole, shovel handle, or stick to punch several ventilation holes in the ceiling at a 45-degree angle to the floor. Leave this object handy to clear the holes at regular intervals if they become clogged. The ventilation will help to prevent carbon dioxide buildup from your own breath as well as carbon monoxide if you plan to use stoves or candles.

Make a shelf to hold a lighted candle, which can increase the air temperature in a small cave by 20 degrees or more. Other shelves and platforms can



be created for gear and equipment. The entrance to the cave can be blocked with a snow block, pack, or other gear to further reduce air movement and increase the temperature inside.

Note: Be aware that collapses can sometimes occur during construction of a snow cave, especially in granular snow. It is best to build caves in teams of two and have one person remain outside to rescue the builder in case of collapse. Snow caves rarely collapse after construction because the colder temperatures at night tend to increase the overall strength of the shelter.

Staying Warm

In winter conditions, dressing correctly can do more than keep you comfortable—it can keep you alive. Dress in layers, so you can add or remove articles of clothing to regulate your temperature. And be sure to include layers that *wick* (absorb moisture), block the *wind*, and keep you *warm*.

Wick—Your innermost (base) layer should be made of material that wicks, or draws, moisture away from your body.

Wind—Your outermost layer should block the wind.

Warm—Your middle layer or layers should trap the heat that your body generates.

Avoid cotton, especially in your base layer, because it will trap moisture and make you feel colder.

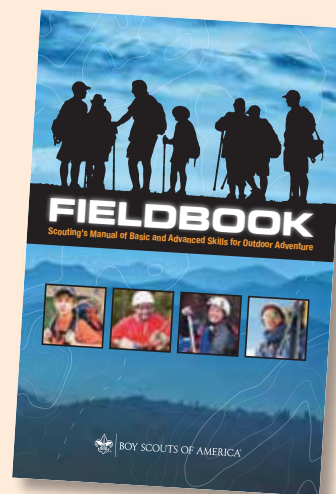


Wind Chill

Meteorologists use *wind chill* to describe the combined effect of cold and wind on the human body. Wind chill temperatures always are the same as or lower than the actual temperature, and decrease with higher winds. For example, when the temperature is 30 degrees, the wind chill is also 30 degrees if winds are nearly calm. The wind chill will drop to 17 degrees, however, if winds are blowing at 20 miles per hour.

The concept of wind chill was developed in part by Eagle Scout Paul Siple, who coined the term. Siple participated in two Antarctic expeditions with famed explorer Richard E. Byrd Jr. as a representative of the Boy Scouts of America.

The *Fieldbook* has an entire chapter dedicated to cold-weather adventuring. Use it as a resource for information about clothing, shelters, winter cooking, and much more.





WINTER CAMPING GAMES

Dress for Cold Relay

Equipment: Collect multiple sets of outdoor clothing. Include base layers, insulating layers, and outer layers of different materials (i.e., synthetic, cotton, wool). Provide hats, gloves, boots, etc. Include items that are appropriate and others that are inappropriate for winter camping.

Method: Mix all clothing and place in a pile at the far end of the room. Divide youth into two or more teams. When told to begin, one member from each team retrieves one item and gives it to a designated model. Another member then retrieves another item. This continues until the model is properly dressed for winter activity.

Scoring: This is a timed event. For each inappropriate item, add 10 seconds to the time.



Frozen Kitchen Taste Test

Equipment: Appropriate stoves, pots, and pans for the sample foods being prepared during the meeting; bowls and utensils for everyone to sample

Method: During the skills instruction portion of the meeting, each group should learn a new recipe and prepare it. The samples are then judged. Afterward, all involved will assist in cleanup.

Scoring: Adult leaders sample each entry and then choose their favorite after deliberation.

Note: Groups with winning entries can receive some sort of award or be exempted from cleanup.

Pitch Your Tent Game

Equipment: A four-season tent and a flag for each group

Method: Give each group a tent in its bag. Place a flag 20 feet from each group marking the location to pitch their tent. On signal, each group runs to its flag and sets up the tent. When the judge rules the tent has been set up correctly, the group takes it down, packs it, and carries it back to the starting line.

Scoring: The first group to return to the start wins.

Note: Decide in advance if tent setups need full storm rigging.



Indoor Snowball Fight

Equipment: A good supply of newspaper

Method: Divide group into two teams. Have each member make two “snowballs” out of newspaper. Both teams line up about 15 feet apart. Following the general rules of dodgeball, each team tries to hit opposing players and dodge their attacks. When a player is hit, he goes to the “prison” area behind the opposing team.

Scoring: A side wins when every player on the other team has been hit with a snowball.





E.D.G.E. Ideas

***Explain** how it is done—Tell them.*

***Demonstrate** the steps—Show them.*

***Guide** learners as they practice—Watch them do it.*

***Enable** them to succeed on their own—Have them practice/teach it.*

EXPLAIN

- Explain hypothermia and the differences between mild and severe cases.
- Discuss how to layer clothing using the principles of wick, wind, and warmth.
- Explain the importance of eating foods that are high in calories during cold-weather activities.
- Discuss different types of snow shelters.
- Describe winter first-aid emergencies.

DEMONSTRATE

- Show how to treat hypothermia.
- Demonstrate examples of appropriate winter clothing.
- Point out the features of four-season tents.
- Show how to use nonflammable insulation for stoves.
- Demonstrate how to build fires and use stoves in the snow.

GUIDE

- Help youth make proper winter clothing choices.
- Watch as youth plan and prepare good winter meals.
- Guide youth in setting up winter tents.
- Guide youth in making winter shelters.
- Oversee activities to prevent weather-related injuries.

ENABLE

- Empower youth to recognize and treat hypothermia.
- Plan opportunities for youth to build winter shelters.
- Encourage youth leaders to plan challenging winter activities.
- Ensure that the unit has adequate gear for winter camping, including four-season tents.

MAIN EVENT SUMMARIES

● ESSENTIAL

Day Activity

A day in the snow—Take a day trip to a snow zone. Practice building snow shelters such as trenches and snow forts. Practice winter cooking skills by making a hot lunch.

■ CHALLENGING

Overnight Activity

Overnight camping in winter conditions—Using appropriate tents, clothing, and sleeping bags for cold weather, camp overnight in below-freezing winter conditions. If snow is available, consider making a snow cave.

◆ ADVANCED

Weekend Activity

Camping in a snow cave or igloo—Build a snow cave or an igloo and spend one or more nights in a snow zone. This activity requires appropriate snow levels and conditions. It may be combined with winter trekking or cross-country skiing activities.



WINTER CAMPING

Meeting Plan: Hypothermia and Clothing



Week 1 Date _____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Challenge Scouts as they arrive to use their smartphones to find the most outlandish winter hats they can, or print pictures of various winter hats from the Internet and have Scouts vote on their favorite.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Scout Oath and Scout Law Uniform inspection		7 p.m.
Group Instruction 5 minutes	Define hypothermia. Explain the difference between mild and severe cases and discuss first aid for hypothermia.		7:10 p.m.
Skills Instruction 45 minutes	<ul style="list-style-type: none"> Learn the basics of winter clothing, including the principles of wick, wind, and warmth. Discuss why you should never sleep in the same clothes worn during the day. Try on different layers of clothes. Identify which materials are not appropriate for cold weather. 		7:15 p.m.
	<ul style="list-style-type: none"> Review the principles of wick, wind, and warmth. Discuss how synthetic materials work and compare them to wool and cotton. Discuss how synthetics are best for multiday needs. Try on different cold-weather clothing. 		
	<ul style="list-style-type: none"> Review the principles of wick, wind, and warmth, as well as the other material above. Discuss overheating and the need to avoid perspiration. While wearing multiple layers of winter clothing, do a vigorous activity. Adjust clothing as needed to prevent sweating. 		
Breakout Groups 15 minutes	<ul style="list-style-type: none"> Work on rank-appropriate Scouting skills. Plan the best clothing for winter camping. 		8 p.m.
Game 10 minutes	Play Dress for Cold Relay (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
Total 90 minutes of meeting			
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.



WINTER CAMPING

Meeting Plan: Food Is Fuel



Week 2 Date _____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	This meeting features hands-on meal preparation. Use the preopening time to prepare the cooking areas for each group. Have camping cookbooks available for youth to browse through.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Scout Oath and Scout Law		7 p.m.
Group Instruction 10 minutes	<ul style="list-style-type: none"> Have a discussion about why food is important during cold-weather activities. Emphasize that nutrition keeps us warm. In a brainstorming fashion have the entire group list ideal foods for winter activities. Discuss the limitations of campfires during snow events. 		7:10 p.m.
Skills Instruction 40 minutes	<ul style="list-style-type: none"> Learn how to prepare dehydrated foods that simply require hot water. Prepare some items for sampling. 		7:20 p.m.
	<ul style="list-style-type: none"> Find recipes for high-calorie winter camping foods that can be eaten without cooking, such as homemade granola bars or gorp. Prepare some sample foods. 		
	<ul style="list-style-type: none"> Review methods of gourmet cooking with Dutch ovens. Discuss the special requirements for Dutch oven cooking in the snow. Prepare some sample Dutch oven foods. Note: This group will need to start its charcoal before the meeting starts. 		
Breakout Groups 15 minutes	<ul style="list-style-type: none"> Continue cooking time and clean up as necessary. Plan meals for the upcoming main event. 		8 p.m.
Game 10 minutes	Play Frozen Kitchen Taste Test (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
Total 90 minutes of meeting			
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.






WINTER CAMPING

Meeting Plan: Snow Shelters



Week 3 Date _____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Show Internet videos of snow cave or igloo construction.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Scout Oath and Scout Law Uniform inspection		7 p.m.
Group Instruction 10 minutes	<ul style="list-style-type: none"> Discuss the differences between three-season and four-season tents. Discuss why four-season tents are needed for freezing conditions. Compare ground pads and explain why ground insulation is essential during winter camping. 		7:10 p.m.
Skills Instruction 40 minutes <div>    </div>	<ul style="list-style-type: none"> Learn how trench shelters are made. Practice building miniature shelters with sand if available. Discuss safety considerations. 		7:20 p.m.
	<ul style="list-style-type: none"> Learn how snow caves are made. Practice building miniature shelters with sand if available. Discuss safety considerations. 		
	<ul style="list-style-type: none"> Learn how igloos are made. Practice building miniature shelters with sand if available. Discuss safety considerations. 		
Breakout Groups 15 minutes	<ul style="list-style-type: none"> Work on Scouting skills. Continue planning for the main event. 		8 p.m.
Game 10 minutes	Play Pitch Your Tent (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
Total 90 minutes of meeting			
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.



WINTER CAMPING

Meeting Plan: Safety and Rescue



Week 4 Date _____

ACTIVITY	DESCRIPTION	RUN BY	TIME*
Preopening 15 minutes before meeting	Have leaders available to discuss advancement requirements related to winter camping and winter sports, such as the Snow Sports merit badge and the Ranger Winter Sports elective.		6:45 p.m.
Opening Ceremony 10 minutes	Flag presentation Scout Oath and Scout Law		7 p.m.
Group Instruction 15 minutes	Depending on what you are going to do on your main event, discuss and review skills and safety for the following activities: <ul style="list-style-type: none"> • Skiing • Snowboarding • Ice skating • Sledding • Survival 		7:10 p.m.
Skills Instruction 30 minutes	<div>●</div> <ul style="list-style-type: none"> • Review how to treat hypothermia. • Practice techniques as appropriate. 		7:25 p.m.
	<div>■</div> <ul style="list-style-type: none"> • Review the above material. • Discuss and learn how to perform ice rescues. • Practice techniques as appropriate. 		
	<div>◆</div> <ul style="list-style-type: none"> • Review the above material. • Discuss and learn what to do in case of an avalanche. • Discuss when the risk of avalanche is greatest. 		
Breakout Groups 20 minutes	<ul style="list-style-type: none"> • Work on group tasks and advancement. • Do an equipment check. 		7:55 p.m.
Game 10 minutes	Play Indoor Snowball Fight (described earlier).		8:15 p.m.
Closing 5 minutes	Announcements Leader's minute Closing		8:25 p.m.
Total 90 minutes of meeting			
After the Meeting 15 minutes	Leadership team reviews plans for the next meeting and for the main event.		

*All times are suggested.



WINTER CAMPING

Main Event: A Day in the Snow



Date _____

Logistics

Location: _____

Departure time: _____

Return time: _____

Duration of activity: Day

Budget: Completed _____ Approved _____

Camping: Duty roster _____ Menu _____

Transportation: Group _____ Self _____

Tour and activity plan: Completed _____ Submitted _____



Essential (Tier I)

Take a day trip to a snow zone. Practice building snow shelters such as trenches and snow forts. Practice winter cooking skills by making a hot lunch.

Equipment List

- Scout Basic Essentials (Review the list and take what you need.)
- Proper winter clothing
- Appropriate winter food
- Cooking stoves
- Winter toys, sleds, inner tubes, etc.
- Extra clothing

Activity

- Meet and travel to snow location.
- Spend a day playing in the snow.
- Practice making snow shelters.
- Cook and eat appropriate winter meals.
- Practice winter skills.
- Return home.

Safety

- Hypothermia is always the biggest danger during winter activities. Dress appropriately and have extra clothes in case someone gets wet. Follow policies in the *Guide to Safe Scouting* on winter sports safety.
- Make sure the vehicle used is prepared for winter with appropriate traction devices.

Notes

In addition to practicing camping skills, your group is likely to enjoy other snow activities. But remember that these basic skills are very important for overnight trips. Ensure that your group spends time focusing on the basic skills.



WINTER CAMPING

Main Event: Overnight Camping in Winter Conditions



Date _____

Logistics

Location: _____

Departure time: _____

Return time: _____

Duration of activity: Overnight

Budget: Completed _____ Approved _____

Camping: Duty roster _____ Menu _____

Transportation: Group _____ Self _____

Tour and activity plan: Completed _____ Submitted _____

Challenging (Tier II)

Using appropriate tents, clothing, and sleeping bags for cold weather, camp overnight in below-freezing winter conditions. If snow is available, consider making a snow cave.

Equipment List

- Scout Basic Essentials (Review the list and take what you need.)
- Proper winter clothing
- Appropriate winter food
- Four-season tents
- Appropriate ground pads
- Cooking stoves
- Extra clothing
- Appropriate equipment for winter activities (sleds, skis, etc.)

Activity

- Travel to winter camping location.
- Set up camp.
- Properly secure tents for winter conditions.
- Prepare meals using winter skills.
- Have fun with games and activities.

Safety

- Hypothermia is always the biggest danger during winter activities. Dress appropriately and have extra clothes in case someone gets wet. Follow *Guide to Safe Scouting* policies on winter sports safety.
- Assure that tents, ground pads, and sleeping bags are appropriate for winter conditions.
- Make sure the vehicle used is prepared for winter with appropriate traction devices.

Notes

Consider bringing extra blankets and sleeping bags to distribute as needed, especially if you have young or inexperienced campers.



WINTER CAMPING

Main Event: Camping in a
Snow Cave or Igloo



Date _____

Logistics

Location: _____

Departure time: _____

Return time: _____

Duration of activity: Weekend

Budget: Completed _____ Approved _____

Camping: Duty roster _____ Menu _____

Transportation: Group _____ Self _____

Tour and activity plan: Completed _____ Submitted _____



Advanced (Tier III)

Build a snow cave or an igloo and spend one or more nights in a snow zone. This activity requires appropriate snow levels and conditions. It may be combined with winter trekking or cross-country skiing activities.

Equipment List

- Scout Basic Essentials (Review the list and take what you need.)
- Proper winter clothing
- Appropriate winter food
- Four-season tents
- Appropriate ground pads
- Cooking stoves
- Extra clothing
- Appropriate equipment for winter activities (sleds, skis, etc.)

Activity

- Travel early to the winter camping location.
- Build a snow cave or igloo.
- Demonstrate how this shelter is appropriate for wilderness survival.
- Prepare meals using winter cooking skills.
- Discuss and identify avalanche dangers.
- If staying multiple days, consider participating in winter sports.
- When ready to leave, properly take down the snow structure.

Safety

- Hypothermia is always the biggest danger during winter activities. Dress appropriately and have extra clothes in case someone gets wet. Follow *Guide to Safe Scouting* policies on winter sports safety.
- Assure that tents, ground pads, and sleeping bags are appropriate for winter conditions.
- Make sure the vehicle used is prepared for winter with appropriate traction devices.

Notes

When adding skiing, snowboarding, or skating to this activity, make sure you have appropriate training from a qualified consultant. Follow *Guide to Safe Scouting* policies on winter sports safety. Consider bringing extra blankets and sleeping bags to distribute as needed, especially if you have young or inexperienced campers.