

HOW TO BUILD A SHELTER IN THE SNOW

BUILDING A SNOW TRENCH

- 1 Map out a trench so that the opening is at a right angle to the prevailing wind.**

You need to find a space large enough so that the width and length are just a bit longer and taller than your body when lying down. You need only a minimal depth to maintain a cozy space for body heat conservation.

- 2 Dig the trench with a wider, flatter opening on one end for your head, using whatever tools you have or can create.**

A cooking pan or long, flat piece of wood works well as an entrenching tool.

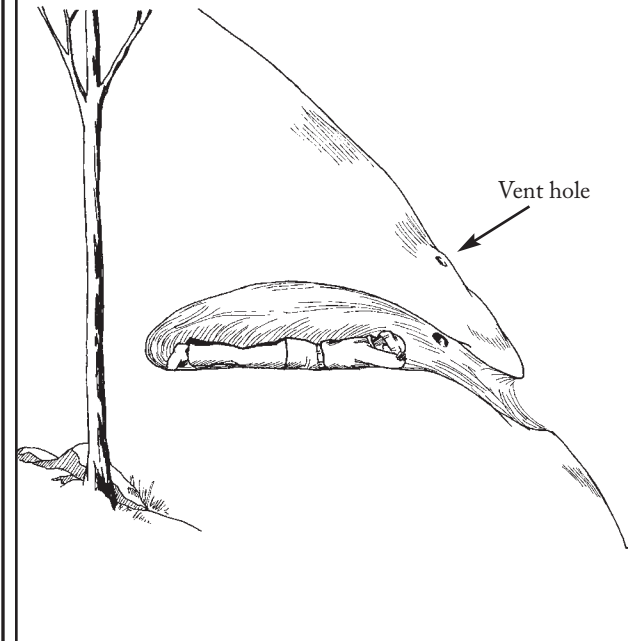
- 3 Cover the top of the trench with layers of branches, then a tarp, plastic sheeting, or whatever is available, then a thin layer of snow.**

A “door” can be made using a backpack, blocks of snow, or whatever materials provide some ventilation and yet block the heat-robbing effects of the wind.

BUILDING A SNOW CAVE

- 1 Find a large snowdrift or snowbank on a slope.**
Plan your cave with the opening at a right angle to the prevailing wind.
- 2 Dig a narrow tunnel into the slope (toward the back of the slope) and slightly upward.**
Create a cavern big enough to lie in without touching the sides, roof, or ends.

Dig your snow cave into the drift, at a right angle to the prevailing wind.



3 Make the ceiling slightly dome-shaped.

A flat ceiling has no strength and will in most cases collapse before you are finished digging. The roof should be at least 12 inches thick. If you can see blue-green light (from filtered sunlight) through the top, the roof is too thin.

4 Put a small vent hole in the roof.

The hole will provide fresh air and a vent for a candle, if you are going to use one. Do not add any heat source larger than a small candle. Excessive heat will cause the ceiling to soften, drip, and weaken.

BUILDING A QUIN-ZHEE

If snow depth is minimal and you have a lot of time and energy, build a Quin-Zhee. A Quin-Zhee is a snow shelter that was developed by the Athabaskan Indians, who lived mainly in Canada and Alaska.

1 Pile up a very large mound of packed snow.

The pile needs to be big enough for you to sit or lie down comfortably inside when it is hollowed out.

2 Wait an hour for the snow to consolidate.

3 Dig in and build a snow cave.

Be Aware

- A preferable alternative to building a snow shelter is a man-made structure or vehicle. If none is

available, search for anything that will help protect your body from heat loss. Caves, downed timber, or rock outcroppings can help protect you from the elements.

- If you cannot stay dry in the process of building a snow shelter, or you cannot get dry after you have built it, do not build it! Moving enough snow to create a shelter big enough for even just one person is hard work, and any contact of your skin or clothing with snow while digging will amplify your body's heat losses.
- When building a shelter, the oldest snow will be the easiest to work with, since it consolidates over time.
- Snow is an excellent insulating and sound-absorbing material. From within a snow shelter, you will be unlikely to hear a search party or aircraft. You may want to make a signal above ground that can be noticed by a search party (a tarp, the word "help" or "SOS" spelled out in wood).
- In any shelter, use whatever you can find to keep yourself off the ground or snow. If pine boughs or similar soft, natural materials can be found, layer them a foot or more high, since the weight of your body will compress them considerably.
- When you are inside, the warmth from your body and your exhaled warm air will keep your shelter somewhat comfortable.