

Handout on Quinzee building

1. Make a good circle in the snow by choosing an untracked area, and use a rope as a protractor to make a perfect circle. Your quinzee for 1 or 3 people has a 9 foot base diameter and a pile of 6 feet
 2. Use a shovel or other digging tool to mix up the snow in the clearing, making sure to bring snow from bottom layers up higher and vice versa. Mixing snow of different temperatures will facilitate the hardening process, which is called sintering.
 3. Make a large pile (see legend) of snow on top of the clearing and shape it into a dome or hemisphere. The snow should be heaped, not packed.
 4. Using sticks 12-15 inches long, stick them into the mound in vertical rows of four from the top on down to about 18 inches off the ground, your rows should be about 12 inches apart. (Cut and straighten metal hangers into 15 inch lengths for reusable sticks) 12 sticks are all you will need because you will pull them out and move them as you hollow out your quinzee, and save them until the next time you decide to build a quinzee.
 5. Allow the mound to sinter for 1 to 2 hours depending on weather and snow composition. Sintering also means to sit, and essentially 'weld' the snow crystals together, this can be sped up by stepping on the pile to assist in compaction but a minimum of 1 hour is necessary.
 6. For your doorway, choose a side that is not going to allow wind to blow into the quinzee. Begin to hollow out the mound once it has sintered for the recommended 1-2 hours. Dig straight in at first to create your initial opening, then dig to one side and upward in order to lighten the ceiling load and to avoid possible collapse. Dig to the side where you have imbedded your 15 inch sticks and dig until you reach the tips of the sticks. When you have reached the tip of all 12, you can then go outside of the quinzee and move your sticks over so that you might continue hollowing to the desired wall thickness. This will allow cold air from inside to flow down and out of the shelter. Hollow out to the sticks you stuck in the mound, this way you will know how thick the walls are.
 7. Use the snow you dig out to make a windbreak wall three feet in front of the entrance, or heap it onto the exterior of the shelter to thicken its walls and increase the available interior space.
 8. Smooth out the interior walls and ceiling when the hollowed area is large enough, you can even make shelves for your smaller items (glasses, dentures etc...).
 9. Dig two 5 inch ventilation holes through the ceiling of your quinzee about 1 third of the way down the wall. Make sure these holes stay clear of ice and snow. Without this ventilation you could pass out and even die of CO2 poisoning. Ice will build up on the inside walls and ceiling of the quinzee, if your quinzee is not ventilated properly this buildup could end up being enough to cause collapse. Of course, do not cook inside you quinzee.
 10. Use ski poles, sticks or other clearly visible items to mark the outside of the entrance of your quinzee. This is to mark the entrance not only for you in case the doorway gets covered up while you are away, but also to warn people driving snowmobiles, or hiking in the area that there are people under the snow. Use a foam mat to sleep on and a tarp to cover the entire floor space.
- A "quinzee," or snow hut, can provide vital warmth and shelter in the snow. It can also be a lot of fun to make. If you were careful while building your quinzee, your walls / roof should be exactly 15 inches thick, 24 inches at the base. While waiting for the snow to sinter, prepare a meal, go for a hike or perform some other task to remain active and warm. Sleep with your head near a ventilation hole, and keep your shovel inside while you sleep in case you need to dig your way out. Use your pack to block the entrance of the shelter, but leave some space for air to flow in and out.

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