

# Troop 121

## Winter Backpacking Equipment List

Listed below are suggested items for a winter backpacking or mountaineering trek. When planning for a winter trek always "Be Prepared" for a variety of weather conditions. BSA recommends layered clothing in order to add or subtract warmth as needed in all weather conditions. It is not intended that you purchase all of the type's items below, but choose according to your preferences and comfort. Please label, break-in, and know how to use your equipment. You can buy the equipment of your choice (not exactly the same as below of course) at any one of the following store locations:

**REI – Santa Ana - (714) 543-4142**

**Adventure 16 Gear and Clothing – Costa Mesa - 714-427-0410**

**Sports Chalet – Aliso Viejo or Mission Viejo**

Below is a short description of layering, followed by the suggested cold winter clothing and items that are necessary to insure comfort and safety.

### LAYERING

Layering simply means wearing a series of relatively thin layers (rather than a couple of thick ones) so that you can easily adjust to suit the temperature and conditions. A good system employs three basic types of layers: a light, innermost, base layer that is good at keeping your skin dry, an insulating layer for warmth, and an outside shell layer for protection from the elements. Layers other than your innermost should be loose fitting and comfortable to create loft.




The first layer you put on is the core of your layering system. It is essential that this layer be good at *wicking moisture* through the fabric and away from your skin. There is little that brings on a chill as fast as damp clothing next to your skin. NO layers should be made of cotton as this traps moisture and chills the body. This includes underwear of any kind and socks. Never put wicking clothing into the dryer.



After the innermost layer, the next layers should insulate. This layer will require the most adjustment. You can choose one layer or many depending on how cold it is. It is better to error on the side of too many layers rather than too few when you head out. You can always remove a layer or two if you get too warm and you may need the additional layer late in the afternoon. A down vest adds additional warmth to this insulation layer and is highly recommended.





The outermost layer functions as protection from wind, rain, or snow. It should be large enough to accommodate all your inner layers and have plenty of pockets. To minimize overheating, fabric and design should allow for ventilation and breathe ability (Product like Vortex).

Always keep in mind that a good layering system is one that works for you. The product combinations to achieve it are endless.






## Snow Clothes

Picture	Comments	Required / Optional	Buy/Rent/Borrow
	<p>A hat ("toque" or "beanie") that will keep your head warm. Good to sleep in. Polartec is suggested.</p>	<p>Required</p>	<p>Buy (it's cheap)</p>
	<p>A balaclava that will keep most of your face and neck warm on the ascent. This may be too warm if you tend to hike hot, but you should have something to at least cover your neck.</p>	<p>Recommended</p>	<p>Buy (it's cheap)</p>
	<p>A neck gaiter will keep your neck warm on the ascent. It may be worn instead of a balaclava if you tend to hike hot.</p>	<p>Recommended</p>	<p>Buy (it's cheap)</p>
	<p>Headlamp with LITHIUM batteries. No flashlight. This will enable hands free movement as cook after dark. Alkaline batteries will die on you after about one hour in high elevations and extreme cold weather so they are highly discouraged.</p>	<p>Required</p>	<p>Buy/Borrow</p>
	<p>Glacier goggles. The sun is so much brighter without the clouds and on a sunny day, even the reflection from the snow can cause temporary snow blindness. Also, bring a pair of ski goggles for the times when we may need full face coverage. Although not as good, ski goggles can be used to replace glacier goggles, especially for eyeglass wearers.</p>	<p>Required</p>	<p>Buy/Borrow</p>
	<p>A lightweight undergarment. Helps with layering. Should be worn as a first or second layering. Should be wicking material. NO layer should be made of cotton as it traps water against your skin.</p>	<p>Required</p>	<p>Buy (personal)</p>
	<p>A good mid layer garment. Helps with layering and can be removed if it is too hot. Polartec is good – make sure it is breathable.</p>	<p>Required</p>	<p>Buy/Borrow</p>

	<p>A warm top-level garment. This ideally zips into your top. Again, Polartec is good. Should have "pit zips" to allow for ventilation. Usually bought in conjunction with jacket (but not necessary)</p>	<p>Required</p>	<p>Buy/Borrow</p>
	<p>GoreTex Jacket. Usually 2 ply will do (3 ply is better but heavier). Vital that it is waterproof and wind resistant since it will keep you warm. It should have lots of pockets which you will need to carry accessible items during the hike and a hood against rain.</p>	<p>Required</p>	<p>Buy/Borrow</p>

	<p>A down jacket will be used to prevent getting cold when you stop on the mountain. It goes on <b>over</b> your Gortex jacket. While this item may have limited future usage, having something like this is essential for safety on a summit. Some mountains create their own weather patterns and weather can change quickly. A down vest is also a great alternative and lighter weight.</p>	<p>Required</p>	<p>Buy/Borrow if possible</p>
	<p>Gloves – Should have a removable inner lining (so that your hands will not freeze if you need to tie your shoe) and be waterproof (GoreTex) so that when you put your hands down on the snow, you do not pick up moisture. If your gloves do not have a removable line, you can buy separate silk weight liners.</p>	<p>Required</p>	<p>Buy/Borrow.</p>
	<p>Windstopper gloves, apart from mountaineering gloves.</p>	<p>Recommended</p>	<p>Buy/Borrow</p>
	<p>A first layer underwear. It is important that it be of wicking material. Note that the cotton long johns will trap moisture, which will then be cold and bring down your body temperature and make you very uncomfortable.</p>	<p>Required</p>	<p>Buy (Personal)</p>

	Expedition level underwear. Worn as next to skin level or mid level. Wicking is essential.	Required	Buy (Personal)
	Waterproof covers (again, GoreTex). This is essential as you trudge through the snow. It will keep you warm and dry and increase your comfort.	Required	Buy/Borrow (skiers tend to have a set already)
	Lining socks. Make sure they are made of wick material. They will keep your feet and toes warm and dry so you can keep trudging along up that cold mountain ... (2 pairs)	Required	Buy (cheap)
	Outer socks. Usually made of wool or synthetics. They will keep your feet and toes warm (2 pairs)	Required	Buy
	Gaiters go over your boot and over your pants to prevent snow from coming in. GoreTex is good! You may not to borrow these as they can get a little ripped up during the climb and it might not be so nice to give a friend her ripped gaiters back.	Required	Rent/Buy/Borrow
	Backpacking boots, (no tennis or hiking shoes) mid cut suggested (over your ankles) and they do need to be waterproof.	Required	Buy
	The colder the rating the better, however zero degree is required. If you have a bag close, you may consider an over-bag which adds several degrees of comfort	Required	Borrow (really expensive)
	Stuff Sack. Use this to compact your sleeping bag	Required	Buy/Borrow

	<p>A big backpack (5000+ cu inches). This will contain all your gear. If you are purchasing a new backpack, you may wish to get one with a detachable top that can be worn around your waist. This can be worn during summit attempt since you will not have much gear to carry.</p>	<p>Required</p>	<p>Buy/Borrow</p>
	<p>Trekking poles. It makes it a lot easier to get up and down. Two are recommended. During summit attempts, you will use your ice ax and one pole. You could substitute a ski pole but this will be hard to pack while the trekking poles are collapsible.</p>	<p>1 Pole Required/ 2 Poles Recommended</p>	<p>Borrow</p>
	<p>Insulated Water Hydration System (e.g. Camelback) <u>plus</u> one water bottle (as shown below). Water is essential on the mountain and the Camelback (or a system made by another company) is the best alternative. While the two water bottle solution below is less costly, a Camelback is more easily accessible on the trail. It must be hold at least 2 liters and bite piece a insulation kit can be bought separately.</p>	<p>Required (or two Nalgene bottles)</p>	<p>Buy/Borrow</p>
	<p>Water bottle (2). Nalgene are recommended as they are made of the impact resistant polycarbonate materials. Get the wide mouth which makes filling easier. An insulator is required to prevent any freezing. OR bring a water filter if we are backpacking near a stream</p>	<p>Required (or Camelback)</p>	<p>Buy/Borrow.</p>
	<p>If water is available then a water purifier is essential. Insure that it removes viruses and bacteria.</p>	<p>Required (or Nalgene 1 liter bottles)</p>	<p>Buy/Borrow</p>