

[] **NAVIGATION:** This incorporates the first two items of the old list: map and compass. Both still are mandatory, along with the knowledge of how to use them, including accounting for declination, or the difference between true north and magnetic north. The compass points to the latter, but in Washington true north is 18 degrees to the west. The map should be topographical and carried in a waterproof container, such as a large zipper-lock plastic bag. Climbers, scramblers and other off-trail travelers often also carry an altimeter, a most functional route-finding tool in the mountains, and a GPS unit. Glacier travelers sometimes use wands to mark routes, and often bushwhackers use surveyor's tape in dense woods. If you do, remove them on the way out.

[] **SUN PROTECTION:** This is critical in the mountains, especially if you are on snow. Sunglasses should provide ultraviolet protection; dime-store cheapies may not be worth a plug nickel on snow. Sunscreen should be rated at least SPF 15. Plus lip balm with sun protection. Remember eye damage that might not even be noticeable accumulates (adds up) over time. Wear eye protection!

[] **INSULATION:** This one used to be listed as extra clothing, but the new category includes inner and outer socks, boots, underwear, pants, etc. All told, your insulation should allow you to survive the worst conditions that can be realistically expected. In winter that means a blizzard and subfreezing temperatures. Your clothes should not be of cotton, which robs you of heat when wet and increases the risk of hypothermia. Instead, use synthetics such as polypropylene and nylon, or blends of the same with wool or silk. This category includes full rain gear – pants and jacket – Curious fact: A hat provides more warmth for its weight than any piece of clothing. This is because 40% of your body heat is lost through your head. The next heat loss area is your feet.

[] **ILLUMINATION:** The category is the same, although more and more hikers these days are not using traditional flashlights with bulbs, but headlamps with light-emitting diodes. LEDs do not throw a beam as well as traditional flashlights, but they're lighter and more efficient because they do not burn out batteries as rapidly. Three AAA alkalines seem to last forever. Carry extra ones to be safe, and if you use a flashlight, an extra bulb.

[] **FIRST-AID SUPPLIES:** Not all of us have taken a first-aid course, but it's a great idea, especially mountaineering-oriented first aid. That way you'll know how to properly use gauze pads, roller gauze, butterfly bandages, triangular bandages and medicines you should carry. Interesting note: Experts advise that many prepackaged first-aid kits are inadequate.

[] **FIRE:** This used to include matches in a waterproof container, and those are still good. But many climbers and hikers now carry at least two disposable lighters instead. This category includes fire starter, such as candles, chemical heat tabs, canned heat or resin-soaked, chipped-wood blocks. Back packing stove.

[] **REPAIR KIT AND TOOLS:** This category replaces the simple knife, which still is essential, but perhaps in combination with a multitool, today available in reasonable weights. The small pair of pliers on many multitools can be unbelievably useful.

Depending on what you're doing in the wilderness, you may include safety pins, spare pack clips, cable ties, cordage and good-old duct tape. A quaint tradition of many hikers is to wrap a few feet of duct tape around their water bottles.

[] **NUTRITION:** Carry at least enough food for an extra day and night in the woods. It should require no cooking and store well: granola, jerky, nuts, candy, dried fruit.

[] **HYDRATION:** You can live days without food, but not long without water, and dehydration can sneak up on you. Always carry at least one water bottle per person, and it's a good idea to pack iodine tablets to treat additional water, or carry a filter.

[] **EMERGENCY SHELTER:** If you're carrying a tent, you're covered. But on day trips you should at least pack a space blanket, in addition to your rain gear. Other options are plastic tube tents or an extra-large plastic trash bag.