Ever considered camping in the snow? It's not all cold nights and frozen toothpaste in the morning. With a little preparation ahead of time, a snow camping trip can be full of fun. Whether you're into snow-play, hiking, or a good yarn by a cozy campfire with your mates at night – this blog defrosts the top tips for a successful camping experience in the snow.

The Victorian Alps towards Mount Feathertop. Image: Brendan Barnes

Preparing Your Vehicle

Driving through the alpine regions in winter means your car will be subjected to very cold temperatures and icy conditions. Making sure you are well equipped with everything operating smoothly ensures there are likely to be less problems on the road.

Mechanics

Have your mechanic properly assess that everything is working before you leave, including:

- The battery: can it crank-start in cold conditions?
- The radiator coolant: is it topped up and containing an anti-freeze mix?
- Your tyres: do they have good tread?

Fitting chains early before the weather turns. Image: Brendan Barnes

Snow Chains

Hire or purchase a set of snow chains. These can feel a bit intimidating, but the store will normally do a 'test fit' on your vehicle before you drive away, to ensure you have the right size for your tyres.

- Be sure to take note of the steps when they fit them
- Have a go at fitting and removing the chains yourself when you get home, so you are familiar before the trip.
- Pack waterproof gloves (that you're OK with getting muddy), a small tarp to kneel on, a head torch, a high-vis vest, and perhaps an old rain jacket that can also withstand mud. Keep these in easy reach for when you need to fit your chains.

There are multiple chain bay sites as you head up the mountains where you can pull in and fit your snow chains. When conditions are particularly hazardous, additional LED signs warn that chains must be fitted beyond that point. For those hiring chains and not returning the same way, the companies usually have drop-off points at alternate sides of the mountain.

Note too that Victoria and NSW have slightly different rules on snow chains. In Victoria, all vehicles must carry chains when entering alpine resorts. In NSW, only 2WD vehicles must carry chains when entering Kosciuszko National Park, while AWD and 4WD vehicles are recommended to.

A frosty morning in Long Plain, Kosciuszko National Park. Image: Brendan Barnes

Fuel

Do you have a diesel car? Regular diesel fuel 'waxes' at low temperatures, which causes blockages in the fuel system.

'Alpine diesel' is sold at petrol stations near the snowfields during winter. This type of diesel

contains an additive to ensure the fuel remains liquid through your fuel system in extreme cold.
When planning a trip, aim to run down your tank of regular diesel on the way there before topping up with alpine diesel at a nearby township, such as Bright in Victoria or Jindabyne in NSW. This will ensure your tank is full of the alpine blend for your trip into the mountains. Allow enough driving for the alpine blend to run through the fuel system before you turn the engine off and park overnight.

Taking the right gear for the conditions is essential for a safe and comfortable trip. Image: Sea to Summit

Shelter and Sleep System

For snow camping, there are three main considerations for your shelter and sleep system. Taking the right gear for the conditions is essential for a safe and comfortable trip.

Tent

Generally, three-season tents are used throughout spring, summer, and autumn. They keep the rain out and offer plenty of ventilation, but are not necessarily designed for winter use. Four-season tents use stronger pole geometries, additional guy ropes, and thicker fly materials to withstand both stronger winds and snow load weighing down the top of the tent.

My Marmot Fortress 3P is suitable for camping all year round. Image: Marmot

Mat

When selecting a sleeping mat, the R-value is a really useful guide to determine how well the mat will insulate you from the cold ground. Generally, an R-value of 4 or higher is sufficient for general winter camping. For alpine camping, it's best to aim for an R-value of 6 or higher to ensure a comfortable night's rest.
These days, there are some great lightweight options for hikers offering high levels of insulation; this is particularly great for multi-day winter in the alpine region. There are even more options for car-based campers, particularly with the 10cm self-inflating mats available that provide exceptional insulation.

For alpine camping, it's best to aim for an R-value of 6 or higher to ensure a comfortable night's rest. Image: Sea to Summit

Sleeping Bag

Your personal preference will greatly influence which sleeping bag is right for you. Those with experience in extreme conditions are often asked 'what temperature sleeping bag do I need?'. It's a tough question, as it largely depends on what type of sleeper you are.
The Australian Alps rarely drop below an average of -4°C – although in 1991, Charlotte Pass along the Kosciusko Main Range recorded an all-time low of -23°C! My advice would be to not only use a winter sleeping bag with a comfort rating from -5°C to -10°C, but consider mixing and matching: add a sleeping bag liner, wear thermals to bed, and pop on a beanie to keep your head warm. Having multiple layers means you can adjust each to ensure you're not cold but also not overheating. Sweat will create damp and cold conditions within your layers, which at best would be uncomfortable and at worst could be life-threatening.
An example sleep system could be combining a 4-season tent with a Zempire's Monstamat

Twin (R-value of 9.5) and a down sleeping bag.

The layering principle is really important in icy weather. Image: Earthwell

Clothing and Thermals

The wind can feel like a knife as it tries to infiltrate clothing. The layering principle is really important in icy weather; as you move from inside to outside and back again, you need to be able to easily control your body temperature.

Thermals are body-hugging garments that provide the base layer to all that follows. Not only do they trap warm air against the body, but wick the body moisture away so you remain warm and dry. The following garments are designed and work to keep our core within the right temperature zone – enhanced by windproof quick-drying pants, gloves, and headwear too.

Thermal Layer

There are two choices with thermals: synthetic or, more common now, merino wool. Both have their pros and cons, but both are effective and comfortable.

Base Layer

A base layer can simply be a shirt. This draws away the body moisture and provides the warm, dry environment that is so important for comfort and wellbeing.

Fleece Layer

Over the base layer can be a mid-weight, polar fleece jacket – comfortably warm, but not enough to be the final layer!

Jacket Layer

Over the fleece, a thin but warm down jacket is recommended. Whilst thin, a jacket made from the highest quality down provides maximum warmth for minimum weight. Try for a jacket that's wind-proof with a shower-proof shell, so the warm air trapped within the layers remains still and effective.

Lightweight Rain Jacket Layer

Finally, a lightweight Gore-Tex jacket ensures that there is no leakage of body heat. This layer is not only wind and waterproof, but again wicks the moisture away from my body.

Using my MSR Whisperlite with Multi Fuel Bottle to prepare dinner in a High Country hut. Image: Brendan Barnes

Food

Fuel

Are you planning to use a gas canister stove?

The more common butane canisters stop working when the temperature is below zero degrees, and the liquefied gas ceases to vaporise in the canister due to the cold temperature. Instead, look for four-season or all-season canisters containing either propane, isobutane, or a blend of both. That said, it's worth noting that at really cold temperatures the different gasses in the canister will vaporise unevenly; if it's too cold for butane or isobutane to burn, only the propane will be used and the canister may stop working (even when it feels like it's

still half full of fuel).

Stove

For the most reliable cooking in the snow, it's definitely worth considering a liquid fuel stove. Hiking options like the MSR Whisperlite are well known for their robustness in alpine conditions, and once primed are exceptional cookers – even on the coldest and windiest of days. Car-campers will find cookers running off LPG cylinders will work just fine in cold conditions.

Whether you're a hiker, skier, or snowboarder, don't let the snow and winter chill stop you from camping! Image: Sea to Summit

Keep Safe and Enjoy the Snow!

Conditions in alpine regions can be unpredictable and hazardous. Even those with experience can struggle when temperatures plummet, and snowstorms hit with high winds and falling trees.

Parts of the High Country have weak to no mobile coverage; if you get caught in a bad situation without a signal, that situation can very quickly escalate. For your peace of mind, it's a good idea to carry a Personal Locator Beacon like ACR's ResQLink, so you can raise the alarm and notify the nearest emergency services.

Whether you're a hiker, skier or snowboarder, don't let the snow and winter chill stop you from camping – just be prepared with the right gear!

A Personal Locator Beacon (PLB) is essential for emergencies when camping in extreme conditions out of phone coverage. Image: Brendan Barnes

What's your best tip for planning a snow camping trip away?