

**This resource was downloaded from the York Ebor District Library.**



---

**Resource Type:** Scouts Activity

**Title:** Shelter Building Designs

**Description:** A variety of different shelter designs to be created.

**Badge Criteria:** Camper Activity Badge & Pioneer Activity Badge

**Other Notes:** -

<http://eborscouts.org.uk/district-library/>

---

Thank you for using us. Please continue to upload your own resources and activities using the Google Form located on the District Resource Library homepage.

# Shelter Building

Shelters are one of the most important things to learn how to make. In a survival situation, along with water and heat, this is one of the prime requirements.

With any shelter, one of the major concerns is warmth. When you have made your shelter, floor it with a thick carpet of dry leaves, bracken or grass to insulate your body from the cold ground.

Most can be improved by adding a fire and reflector is possible.

## Natural shelters

### Caves and overhangs

The simplest shelter can be an overhang under a cliff, or a cave, but each come with their own problems.

There is a risk with an overhang, or a cave, that rocks or other items may fall from above. In warmer climates, there is also the chance of unpleasant creatures such as poisonous spiders, snakes, scorpions or even bears and the like may already have taken up residence. Also a dry cave may suddenly become a river in torrential rain.

A fire lit around 6 feet or so from the wall will reflect the heat back warming the area under the overhang, and lit in the mouth of a cave will prevent any nocturnal visitors, clear smoke and prevent cold air entering the cave mouth.

It is not recommended that you build this shelter without prior training however knowing about the type and method is useful.

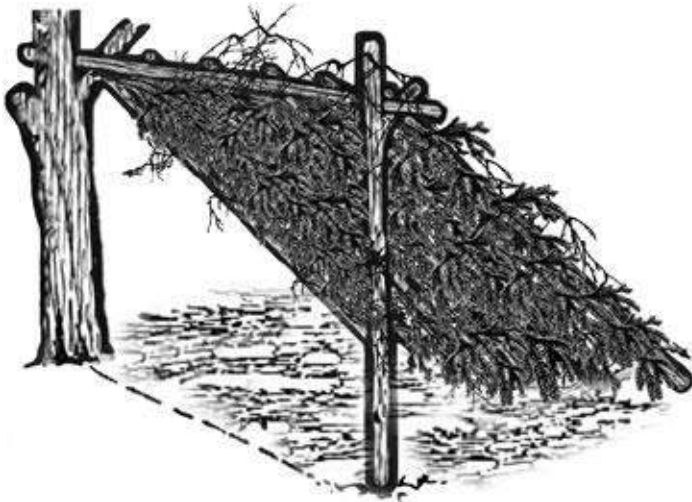
### Lean to

A lean to is very simple to construct against a cliff face. Limbs are cut to lean against the wall and cross-spars are tied on to these. Leaf boughs, preferably of either broad leaved trees or better yet of firs, are then layered over these to provide a windproof thatch. Bracken or heather can also be used.

It is possible to also make a lean to against a fallen tree trunk or cut tree that is rested in the crook of another tree.

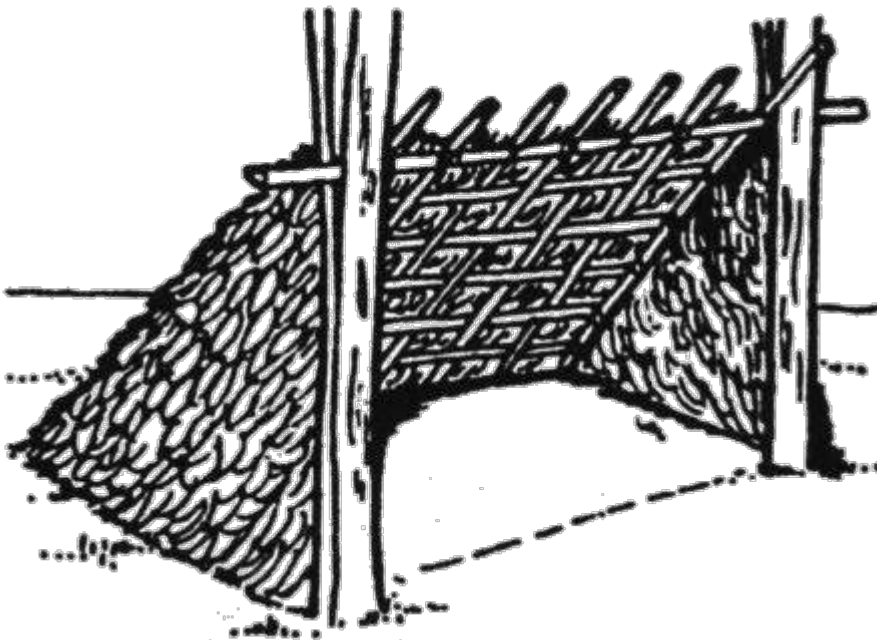
It can even be done against the trunk of a large tree that has fallen.

It is not recommended that you build this shelter without prior training however knowing about the type and method is useful



### Advanced lean to 1

Once the structure of the basic lean to has been made, the ends are also blocked off with screens and thatched. Now build a reflector around 6 foot from the open side of the shelter using two stout posts with horizontals lashed between them, then build a fire between the shelter and the reflector.



## Advanced lean to 2

If you will be using the shelter for an extended period, a retaining wall of slender tree trunks can be placed in the front of the shelter and the hollow filled with bracken, dry leaves or fir boughs to make a comfortable mattress.

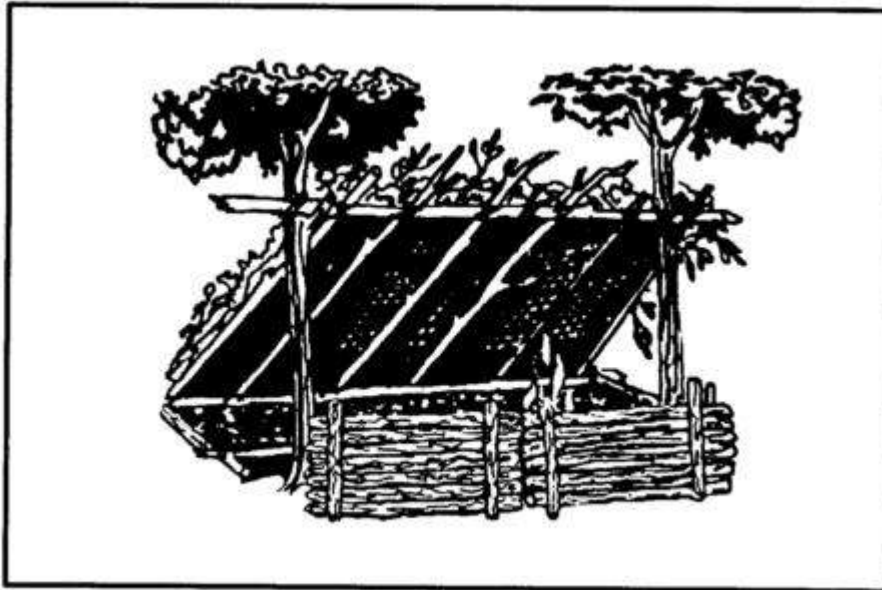


Figure 5-9. Field-expedient lean-to and fire reflector.

## V-frame

This shelter can be made by either a long pole or cutting a tall, sturdy sapling and resting one end in the crook of a tree.

Stout sticks are then laid to either side so that a triangular shape is made.

Cross-members are then tied or woven in and bracken or leafy branches are then woven in to this frame. Leaves are then piled on top of this followed by more leafy branches and more stout sticks.

The open end can be fitted with a 'door' of a woven lattice.

A candle lit inside can raise the temperature inside the shelter to a quite comfortable level.



## A-frame shelter

This is a more complex shelter to make in some ways, but also very simple.

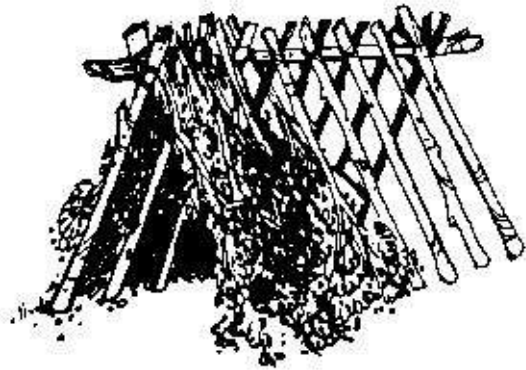
First two reasonably long sets of stout poles driven into the ground and each set lashed together to make bottom heavy 'X' shapes.

A long ridge pole is then placed between the top 'V' of the frames. Lash this to the frames. Next lash 2 stout beams at a comfortable sitting height to the outside of the frames. If you extend the poles out one end, you can make a convenient table.

Either tie a tarpaulin across these to form the bed, or place smooth, straight 1 inch thick sticks across the beams to form a base for your sleeping bag.

Finally throw a tarpaulin over the ridge and tie off, or roof over with frames thatched with leafy limbs, bracken etc.

This will keep you and your gear off the ground and in the dry.



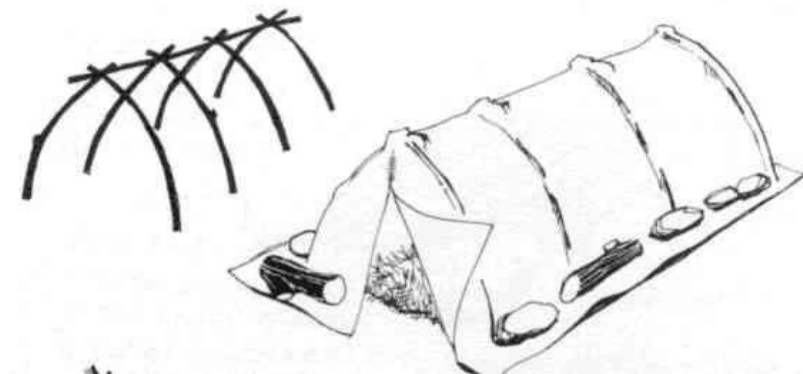
### Wayfarer pine

This is another natural shelter that can be very handy in a survival situation. In northern woods where it snows very heavily the lower branches of fir trees often touch the ground all year round. All that is required is to cut more limbs to fill any gaps, then crawl inside. In winter, all you may need to do is simply brush away some snow to create a door.

Again a candle can raise the temperature inside to a comfortable level as the covering of snow acts as an insulation blanket.

### Sapling shelter

If you are lucky enough to find a number of young saplings growing close together, clear the ground between them, bend pairs together and lash them and lay a 'roof beam across the pairs. Weave other cut saplings between the pairs to form a framework for leafy boughs or throw a trap over the top.



## Wigwam shelter

This can be made in one of two ways, one being easier than the other...

Free standing:

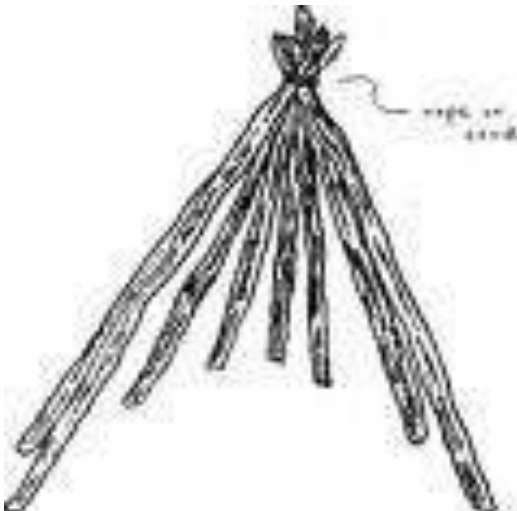
1. Cut a number of saplings around 15 foot long.
2. Lay the poles in a wheel shape.
3. Lash the tops together as if making a tripod.
4. Lift the poles until the required pitch is achieved.
5. Weave springy saplings between the uprights.
6. Lash a cross-spar above the door opening.
7. Thatch with layers of fern or leafy branches.
8. Lash 4 limbs together to make the door.
9. Lash cross-spars between the uprights.
10. Thatch with ferns or leafy branches.

Supported:

1. Find a suitable tree that will act as the central pole.
2. Cut saplings around 15 foot long.
3. Lay the saplings against the tree, resting poles on any available branches.
4. Weave springy saplings between the uprights.
5. Lash a cross-spar above the door opening.
6. Thatch with layers of fern or leafy branches.
7. Lash 4 limbs together to make the door.
8. Lash cross-spars between the uprights.
9. Thatch with ferns or leafy branches.

Extra poles can be cut and laid on top of the thatch to prevent it lifting in the wind.

It is also possible to make either type using a tarpaulin to cover the poles.



## Using a tarpaulin

There are a number of shelters that can be made using a tarpaulin.

### **Wind break**

This is the simplest of the tarpaulin shelters and can be erected in a minute or so. Find two suitable trees that will enable you to create a windbreak. Stretch a line between to trees. Attach tarpaulin to line. Pull bottom of tarpaulin out at an angle and secure to ground.



### **Roofed windbreak**

This is merely a step up from the ordinary windbreak and is made in exactly the same way except that around 1/5 to 1/4 of the top end of the tarpaulin is laid over the line and guy lines are attached to the corners. These are then staked down or tied to other trees to create a roof.



### **Staple shelter**

This is a natural progression from the above two shelters.

As well as a portion forming a roof, part of the tarpaulin is laid on the ground to form a floor.

### **Tent shelter 1**

Use a line staked to the ground or a long slender branch tied to a tree to form the roof spine. Drape the tarpaulin over the spine to form a triangular tent. Weight the sides down with logs, rocks or turf. This will give good protection from the wind so long as it is sited correctly.



### Tent shelter 2a

This is basically the old army Basha. A line is strung between two trees, the tarpaulin thrown over, the sides pegged or weighted.



### Double skin tent shelter 2b

This is exactly the same as the above tent shelter except that a second tarpaulin is strung up in the same way over the 'inner' about 2 to 4 inches above it to form a more rainproof shelter.

