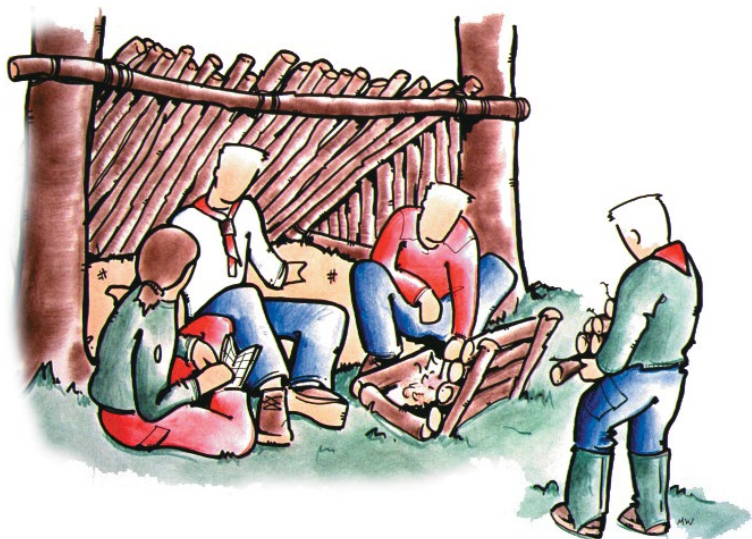


Backwoods Living



Shelter

For a real backwoods adventure and experience you need to be able to build, and live in, a shelter created of natural materials. Plastic sheeting and bivvy tarps are the easy way out, but the true backwoods adventurers can build their own shelters. The design of your shelter is determined by the size of the group, the natural materials available and the landscape that you find yourself in. It is generally best to place your shelter in a wooded



area, so that you are protected from the elements and to avail of suitable trees that can make shelter building easier. Lean to shelters are the easiest to build. The shelter is placed so that the prevailing wind is to the back of it. A reflector fire, placed to the front will reflect heat and warm up your living space - only build a fire in permitted areas.

A simple two person shelter can be built as shown.

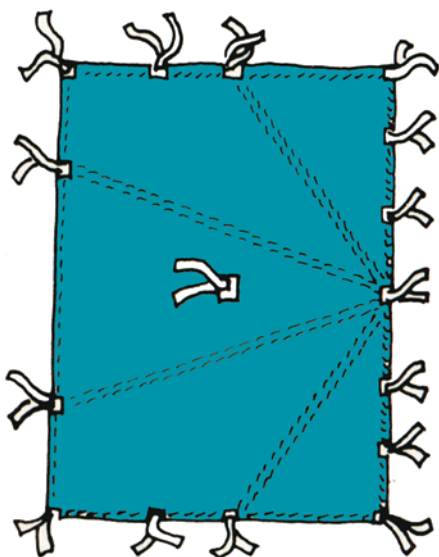


Select a suitable spot and build a framework - a strong ridge and an opening. Build up a framework of smaller timbers on which you can place your roofing material. The roof framework needs to be quite close, otherwise your roofing material will fall through the frame. Use small twigs and branches to intertwine the basic roof framework to avoid big holes.



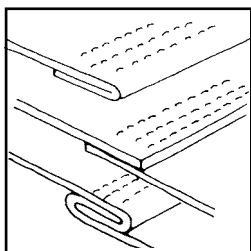
Roof your shelter, starting at the bottom and working up to the top ridge. Moss, grass, and ferns make suitable roofing material. You could also use sods of grass or large pieces of bark. Don't forget to make a soft bedding of ferns or grass on the floor area. Finally, lie in your shelter and look up to find holes that need to be covered.



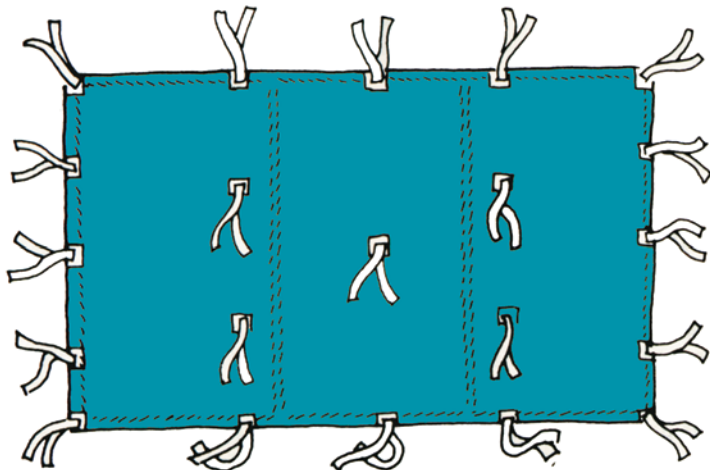
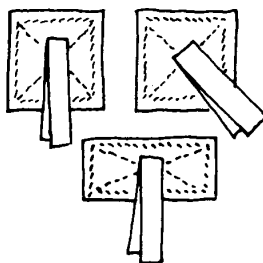


Tarp

A tarpaulin sheet is a useful item of equipment for making shelters. This ready made sheet can be brought in hardware stores which is made of plastic and has a series of eyelets around its edges. The tarp sheet illustrated is made of light canvas or nylon tent material. It will be more durable and lighter than the plastic version. The tarp sheet design can vary depending on its use - small personal tarp sheet for the creation of a one or two person shelter or a larger version designed to sleep a Patrol.



Join lengths of material together using the folded seam method. Use some seam sealer to waterproof the joint. When attaching tapes and tie ropes use extra material and stitching to strengthen the area because it will be under tension.



Bivvy Shelters

Bivvy shelters are a lightweight and handy way to travel and live in a backwoods environment. You need to have a bivvy sheet. This can be a piece of plastic sheeting or you can buy a plastic tarpauline

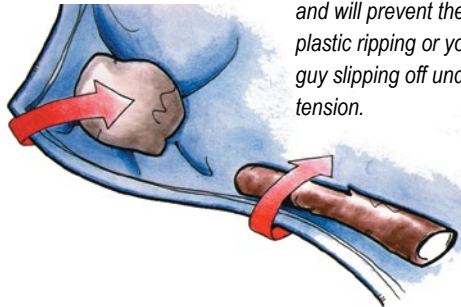


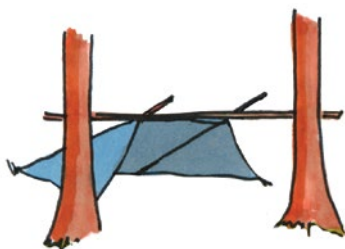
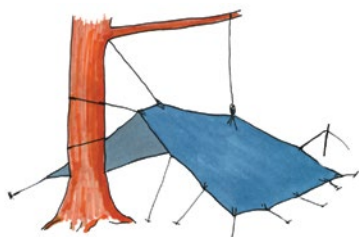
sheet from a local hardware shop. The tarpauline sheet is made of stronger plastic and has eyelets around its edge so it is a better choice than the basic plastic sheet.

To make a basic lean-to shelter it is necessary to construct a simple framework on which the bivvy sheet is stretched to form a shelter. Many designs are possible; see opposite. A number of tent pegs can be used to peg the sheet to the ground. You could also tie off the sheet to a log or large stone. When constructing the framework- keep it simple - choose forked sticks to cut down on lashings. A simple arrangement of the guys will keep the frame straight. The design shown will keep you dry, and at the same time give you that 'back to nature feel' which you want to experience when living backwoods style.



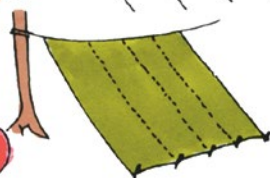
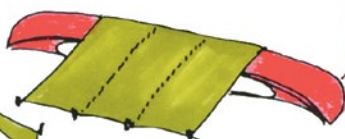
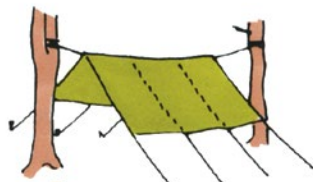
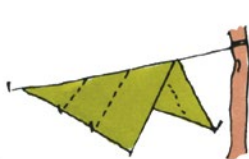
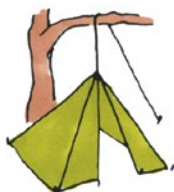
If you are using plastic sheeting, wrap a small rock or piece of wood at the guy point and tie your cord around it. This will give you something to grip and will prevent the plastic ripping or your guy slipping off under tension.





Shelter Designs

Shelter design options using tarp and bivvy sheet - branches and tree locations will often dictate the design used.



Firelighting

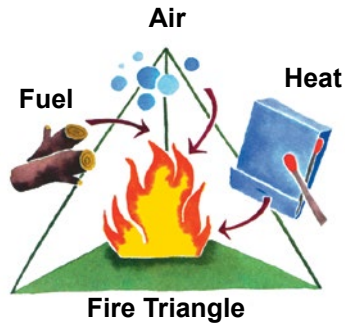
The art of firelighting is a real scouting skill, to be mastered by all. Scouts should be able to light a fire using only natural materials and one match. No fire lighters allowed. Every Scout worth his or her salt should be able to do it and it is a skill that should be learned from the beginning of their time in Scouting.

There are three parts of the triangle of fire; fuel, heat and air. In order to light, a fire must have all three elements. It needs fuel to survive, like we need food. It builds up heat gradually, from your match, to tinder, twigs and bigger fuel. Finally, like us, fire needs to breathe!

When you want to extinguish the fire, simply remove one or more of the parts of the triangle; keep unburnt fuel out of the fire, cool the fire down with water or snow, or smother it with water or clay.

The stones and logs surrounding your fire need to be spaced to allow air to be drawn into the fire base

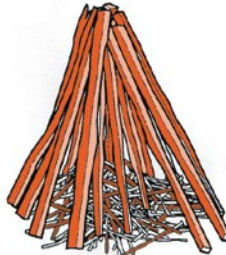
Start building your fire by first placing your tinder on the ground in a light pile. Light your match and let your flame catch hold on the matchstick. Then place it carefully under the tinder and hold it there until the tinder

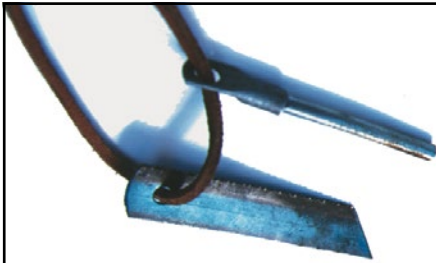


lights. As the fire burns place light tinder and twigs on top of the flame, taking care not to kill the flame as you do so. As fire flares up create a pyramid of timber over the fire.

Once this timber has taken hold introduce heavier logs onto your fire.

A fuzz stick is an excellent way to create dry tinder. You need a sharp knife and a dry - dead wood - stick. Carve the stick into a fuzz as shown. Create long curly shavings if you wish, and collect these to add to your tinder pile. A number of fuzz sticks will be required to light your fire.





Flint and steel

You will need a flint and steel kit as shown, which can be bought in camping shops, and some dry frizzed sisal, or best of all, plumbers hemp or charred cloth as tinder.

Draw the steel blade along the flint stick to create sparks. Watch where the sparks are falling and correct the stroke so that they fall into the same area of the tinder.



When enough sparks are created and hitting the centre wad of the tinder it will suddenly flash into a flame. Now, move quickly to the tinder bundle and create your fire.

Tinder

Tinder is light dry materials that ignites quickly. They are essential to lighting a fire quickly and successfully, using only one match and no paper or firelighters. The simplest of tinder is fluff from pullovers and fleeces. You can also use frizzed up sisal or dry moss. Another

good tinder is paper thin bark strips. By far the best natural tinder is dry curly timber shavings created by carving a dry stick. These shavings must be from a dry deadwood stick rather than a green sapling. If you cannot find a dry stick carve off the wet bark; usually the timber is dry underneath.

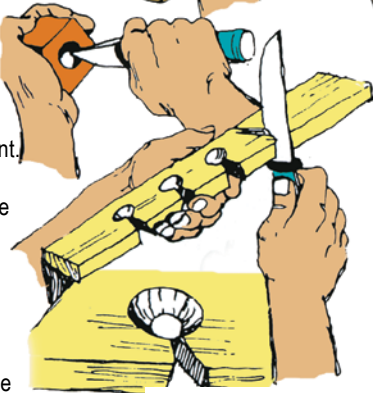
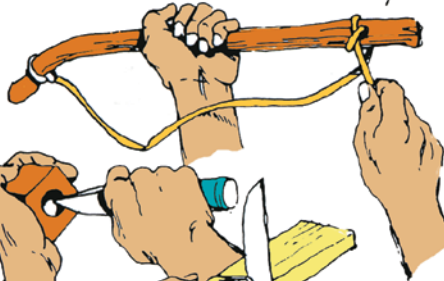


Fire by friction

To create fire by friction - a real scouting skill -you first need to make the elements - a bow, a spindle, a 'thunderbird' and a base board. The timber used needs to be dry deadwood - hazel, ash, lime and elm are good woods to use for this purpose. The spindle is a piece of wood that is pointed at one end and rounded at the other. To get a good grip on the bow string it is best to flatten out the sides of the stick so it has a hexagonal shape. The bow is a bow shaped stick with a loose cord attached as shown. Create a baseboard using a flat piece of wood not more that 10 - 15 mm thick.

A number of burn holes are created using the spindle then a slot is cut so as to create a channel into which you place your tinder. You will also need a 'thunderbird' or spindle holder. This is a simple block of wood with a groove cut into it so that pressure can be applied to the spindle as it turns. Soap or spittle will act as a lubricant. Set up your apparatus as shown, with one turn of the bow around the spindle.

It is best to kneel down, placing your foot on the baseboard. Apply pressure to the spindle and push the bow from side to side in a sawing action This action will cause friction on the baseboard and smoke will rise into the air. The idea is to create enough hot timber ash that will fall on the tinder in the slot and allow it to smoulder. Continue with the sawing action until the smoke thickens and you think it is about to take flame.

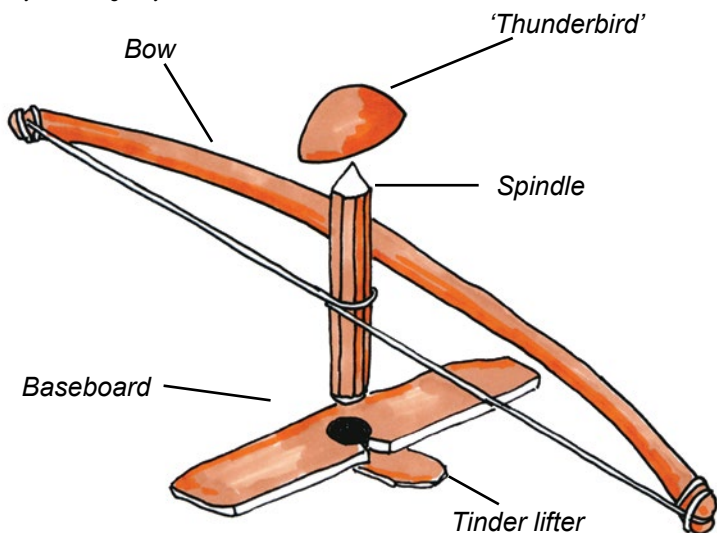


Then stop quickly and blow very lightly onto the tinder. If you are lucky it will catch flame.

Some practice will be required to master this technique - which is based on the pressure and sawing action plus your ability to blow gently and create a flame.

It is also very important that the timber used is dry.

A small thin stick placed under the tinder slot makes it easier to lift the smouldering tinder from the baseboard and carry it to the fire.



Key hole fire

A key hole fire is another way to cook your food backwoods style. Backwoods cooking is done using hot embers rather than flame heat. Embers are raked from the main fire to a side area for ease of cooking. Clear a suitable area by lifting sods or building on gravel or on bare earth. Create a keyhole fireplace as shown.

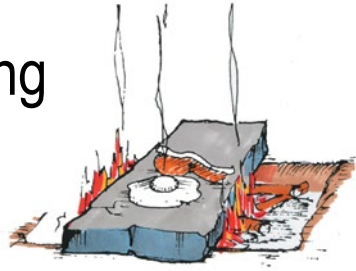


Backwoods cooking

The secret to successful backwoods cooking is to build a good fire that will provide hot embers, for it is on embers that we cook - not flames. One of the problems with embers is that they tend to become cool after a short while.

The keyhole fire solves this problem. A 50mm bed of ashes is required for successful backwoods cooking. Use beech or oak logs, as these will give longer lasting embers. Charcoal can also be used and it will retain the heat longer than wood embers.

Aluminium foil can be used if you want to take the easy way out. With it, it is possible to construct pots and pans for cooking food or you can place your food in an aluminum foil envelope. The pioneers and backwoodsmen



Frying

You will need some form of pan or grill base, usually a flat stone which is placed in the fire to heat it up. The stone is then cleaned off so food can be fried on it. It may be necessary to place small pieces of twig around such things as eggs to stop them rolling off the stone.

of the past used only those materials that could be found locally, for creating cooking utensils.

They often used leaves and clay as well as ingenious cooking spits and holders

made from green twigs and branches (green twigs and branches are less likely to go on fire and are pliable, so they can be worked).



Hygiene

Although backwoods cooking is considered to be primitive in approach, your food hygiene methods should not be. Wash all food before use and keep covered until you intend to use it. Take care not to burn food and avoid cooking the food quickly in a flame. Quick cooking will

cause the food to cook on the outside and be raw inside. Make sure all the food is properly cooked, thus the need for slow cooking over embers.

Clean up the area used when you are finished and dispose of all food scraps carefully. Don't forget to clean your hands also when you have finished cooking. It is traditional to eat using your hands to hold the food.

Container cooking

It is possible to use food as cooking containers, such as, orange skins in which eggs can be cooked. Onion 'shell', created by cutting an onion in half, scooping out the core and leaving three or four shins in place to form a container. You can also use potatoes or pineapples in the same manner.

Orange eggs

Cut an orange in half and eat the contents without breaking the skin. Break an egg into the orange shell and place on embers and allow to cook. When done, eat from the container.

Onion eggs

Cut the onion in half. Remove internal contents except for the remaining three outer layers. Break egg into the onion shell and place on embers. When cooked, eat the onion container as well as its contents, after you have removed the outer scorched layer.

Spud egg

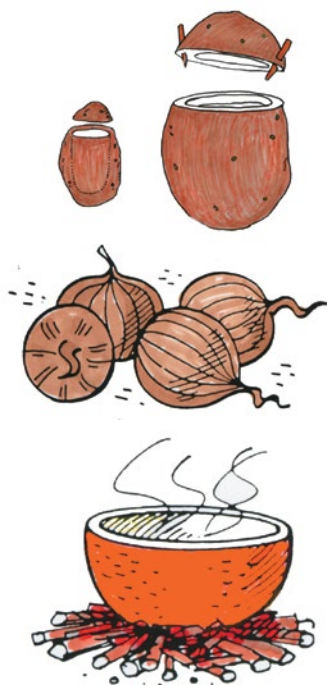
Halve a large potato. Hollow one half. Break an egg into the hollow. Pin two halves of potato together with small sticks and roast in hot embers.

Baked potato

This is perhaps the easiest to cook backwoods style. Take a potato and place it in the embers of the fire. When it is cooked, after about 25 - 30 mins slice open the skin and place a piece of cheese or butter on top.

Instant hot dogs

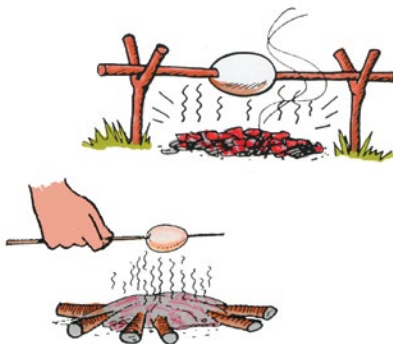
Lay sliced onion on a cabbage leaf, add a sausage or two and place more onions on top. Wrap up the cabbage leaf tightly and



secure it with a number of small green sticks. Place in embers for about 7 - 10 mins, turning occasionally.

Meat and burgers

Meat and burgers can be cooked by a number of methods, such as the kebab method, or the wrap method whereby the meat is wrapped in cabbage leaves. Meat may also be cooked using a broiler or by frying on a hot stone.



Fish



Fish is an excellent backwoods food. It needs some preparation if caught in the wild and is easy to cook. You can buy some fish in your local supermarket and bring it with you, but it is so much better to catch your own.

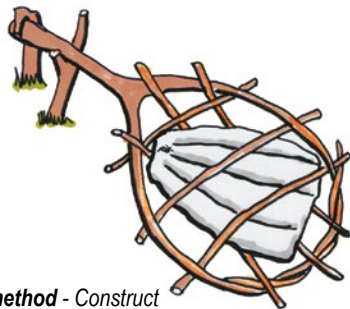
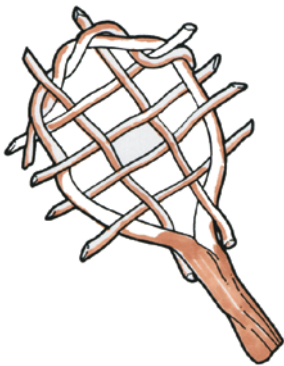
Planked method - Pin the fish, flesh side forward, on a plank or piece of flat board and cook by reflected heat. Place a knob of butter on the fish when it is cooking and later a splash of lemon - delicious!



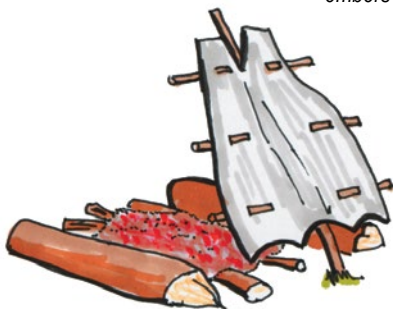
It will be necessary to clean and gut any fish before you cook it. The fish should be cleaned as follows:-

- ☐ Wash the fish thoroughly in clean water.
- ☐ Remove the scales by scraping with the back of a knife(that is, not the sharp edge), working from the tail towards the head.
- ☐ Cut the spine at a point just behind the gills and tear the head off with a steady, slow, forward motion. If you are careful, the fish innards will come out with it. (Dispose of carefully)
- ☐ Slice the belly open from tail to gills and thoroughly wash the inside.
- ☐ Finally, cut off the fins and tail and cook as desired.





Broiling method - Construct a broiler as shown and place your fish in it. Cook over hot embers turning regularly.



Wrap method - wrap fish in grass and cover in mud and place on the fire, or wrap fish in cabbage leaf and pin together with small twigs and place on the fire.



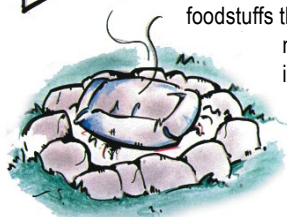
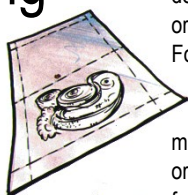
Burgers in leaves

Place three layers of cabbage leaves directly onto the hot embers and put the burgers or mince patties on top of them. After approx. 10 minutes, turn the meat over, putting it onto three new cabbage leaves. Repeat this process until the meat is cooked.

Fish cook very quickly so be careful you do not burn them.

Note: Cabbage leaves can replace foil in most instances when using backwoods cooking recipes. It is important that at no time should rhubarb leaves be used, as they contain a highly toxic substance.

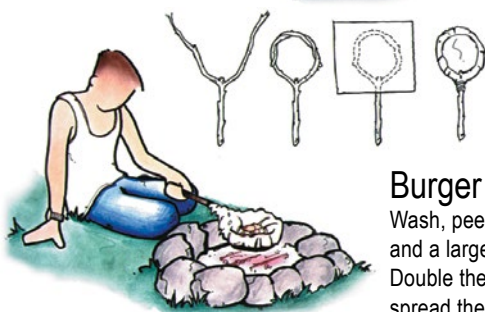
Foil Cooking



Getting ready

Choose heavy duty foil rather than the domestic version as it can be a bit light or you could use two layers of light foil.

Food is a matter of choice. This could include - burgers, sausages, corn on the cobs, onions, mushrooms, tomatoes, potatoes, oranges, eggs etc. It is best to bring foodstuffs that cook quickly. Chunks of meat should be avoided as it is hard to get all the items cooked at the at the same time.



Burger in armour

Wash, peel and cut, a medium potato and a large carrot, into 4mm slices.

Double the foil into a 450mm square and spread the vegetables on one quarter of it, leaving a 50mm margin around them. Put a handmade burger of minced meat or a thawed out frozen burger beside the vegetables. Salt the vegetables, but not the meat; pepper, if you like. Add slices of onion and a dab of butter. Wrap in foil and leave room for expansion. Set on 'not too hot' coals and cover with more coals. Cook for 15 to 20 minutes. Eat from foil.

Roasting

For roasting you will require a good bed of embers. For large animals and birds you will need a spit construction over the fire. For smaller animals and fish, the best way, is to peg them out on a board or a flat piece of wood and stand this next to the fire to form a kind of reflector.

Grilling

You will need a grill. This can be made from green sticks, and held over a hot bed of embers. The disadvantage of grilling food is that it tends to dry out.



Foil cooking times

Cooking time will depend on such factors as the size of the package and the heat of the coals. If necessary, peep into the package to see if it is done, but be sure to seal it up airtight again before replacing it in the coals.

When cooking several things together, you must, of course, allow enough time for the slowest one to cook.

Some suggested foods and approximate times -

Food Time (minutes)

Mince beef 8 - 12

Sausages 5 - 10

Lamb chops 20 - 30

Fish (whole) 15 - 20

Fish (fillets) 10 - 15

Carrots (sliced) 15 - 20

Potatoes (whole) 45 - 60

Potatoes (sliced) 10 - 15

Apples (whole) 20 - 30

Corn Ears 6 - 10

Onion (sliced) 10 - 15



Camp Bread

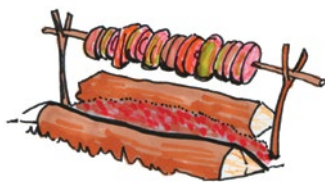
Twists

Mix flour, water, and a pinch of salt together to form a thick dough, adding raisins and sultanas if you like. Make a snake like roll of the dough and twist this, snake like fashion onto a thick green stick (with bark removed). Support it over glowing embers turning occasionally until the outside turns golden brown.

Kebabs

Simple Kebab

Remove the bark from a green stick and onto it spear slices of bacon, mushroom, sausage, carrot, tomato, peppers, pieces of pork. Support the skewer over glowing embers, turning occasionally. Eat when the meat is crisp and golden brown.



Fiji oven

This method is useful if you want a meal to cook while you are away - a bit like a hay box oven. Dig a pit around 60cm deep and 60cm across. Light a fire in the bottom of the pit. Place a thin layer of soil on top of the embers and then place a number of leaves (cabbage leaves are best) on top of the soil . Then place your food on top of the leaves covering it with more leaves. Cover this with more soil and then light a fire on top



of it. It could take a hour or more to cook depending on how big in size it is and the amount of food you are cooking. Another way of baking food is to wrap it in leaves or grass and then in mud. Then bury it in , or surround it with, a fire, and leave it for an hour or more. When you break open the cast of clay, you will find that the grass has kept the food moist.

Containers and utensils

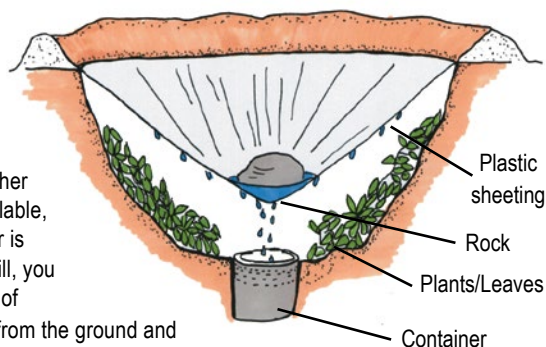


If you are boiling your food then you will need some form of container. It is possible to use a paper bag to boil up water - the trick is to ensure that the heat only touches that part of the bag that has liquid behind it to absorb the heat. In stone age times a water hole was created. Into this hole were placed hot stones heated on a fire nearby, resulting in heating and boiling the water. You can also make containers out of foil or foodstuffs such as oranges and potatoes.

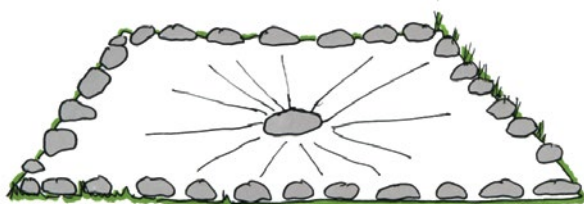
Stone age people used the materials they found around them in order to survive. Simple containers were made from the bark and leaves of trees. These were sown together using sinew or roots and sealed using pine pitch or sap. Clay was moulded and fired to create pots and cups. Apart from the cooking methods shown earlier, using sticks etc., you could also carve your own utensils, such as spoons and ladles or perhaps a cup and a plate from a sawn log.

Water still

A water still is a method of collecting water when no other water source is readily available, or when the source of water is suspect. Using the water still, you can collect small quantities of water through evaporation from the ground and from vegetation. The water still is essentially a survival tool rather than a water collecting method. In normal backwoods conditions, a stream is more likely to be the source of water or bring a supply of water with you.



The water still has two functions, to collect water by evaporation and to collect water by precipitation - rain and dew.

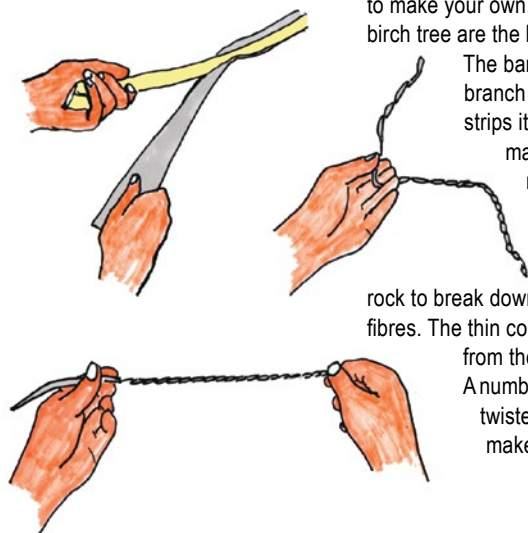


Cordage

Rope and twine is made by using natural materials such as barks and plants. It is easy to make your own. The lime tree and the birch tree are the best for bark material.

The bark is easy to strip off a branch and when cut into thin strips it is very strong and pliable, making it excellent as a tying material. The common nettle is the best plant.

The plant stem needs to be beaten on a rock to break down and obtain the cordage fibres. The thin cordage strips can be drawn from the inside of the plant stem. A number of fibres can be rubbed, twisted or plaited together to make a strong string.



Finding your

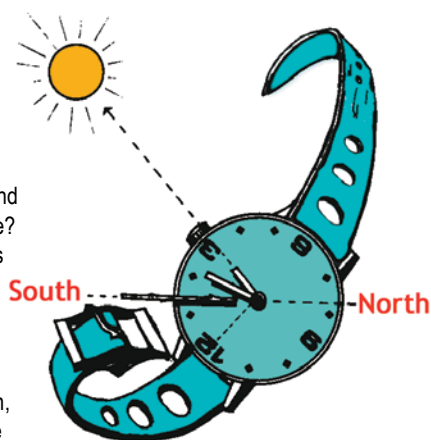
Finding your way using map and compass can be exciting, but what if you had no map or compass and found yourself stranded in open countryside? Nature navigation relies on your skills of observation, through it you can find your way to safety.

Nature provides us with a variety of ways of discovering direction, the sun, the stars, the trees and the wind. The simplest and most obvious way to find North is by the sun. At dawn it rises in the East, at mid day it is due South and in the evening it sets in the West.

Finding your way at night

Except for a few nights every month the moon, like the sun, can help give you direction. Because the moon reflects the sun's light, the moon always points towards the sun, and even at night indicates the direction of the sun. Whether the moon is waxing or waning. If the moon rises before the sun has set the illumination side will be on the west. If the moon rises after midnight the illumination side will be on the east.

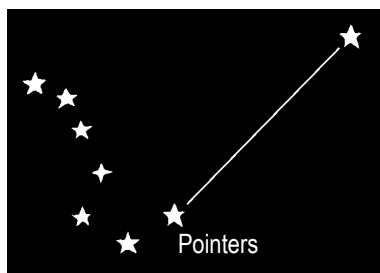
The location of North can also be determined from the stars using the Pole Star. The 'Plough' Constellation is visible all year round as it moves around the Pole Star. On a clear night the Pole Star can be found by plotting a line through the 'pointers'. As with the sun and the moon, the stars also appear from the East and sink in the West. So, if you face a rising star you are facing East, if you face a descending star you are facing West.



Using your watch as a compass

You can use your watch to tell the direction. This is done by using the hour hand and the 12 o'clock mark on your watch.

To discover where South is, point the hour hand towards the sun. Then divide the angle between the hour hand and the 12 o'clock mark on your watch. This will give you the North - South line, the direction towards the sun is South. Once you know where one of the directional points lies it is easy to discover the others.



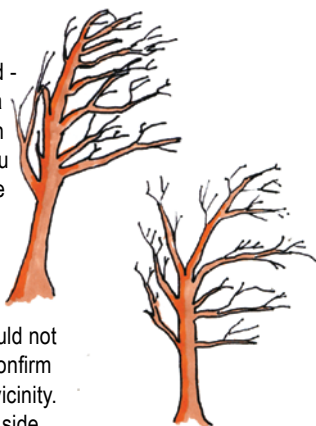


Needle Compass

It is a good idea to have a magnetised needle in your personal survival kit. If not, you can magnetise a needle by rubbing it in the same direction towards the point of the needle using a piece of silk or nylon based cloth. In order to find direction, the needle needs to be suspended so that it moves freely. This can be done in two ways, either by suspending it from a thread as shown or by floating it in a pool of water on a piece of grass or a small leaf. The pointed part of the needle points north.

The wind

Almost every area has what is called a prevailing wind - that is a wind that blows longest and strongest from a particular direction. (in Ireland it blows from the South west). Prevailing winds have their impact on trees. You can very often observe how trees in a given area have been influenced by a prevailing wind to lean in a particular direction. There are but a few exceptions to this general rule - such as with the trees on some of our coastlines which always lean away from the sea. Trees are affected by many factors, and you should not jump to conclusions after studying a single tree, but confirm your findings by observing several trees in the same vicinity. Most trees tend to develop more foliage on the sunny side. Mosses and lichens will tend to grow more on the North side of a tree trunk, rather than on the Southern sun facing side.



Shadow method

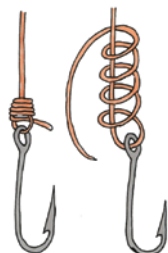
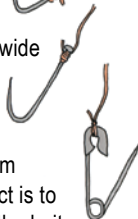
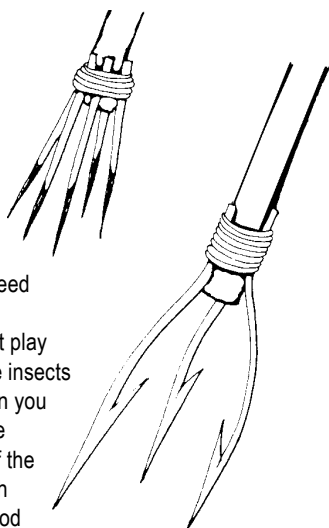
Place a stick in an upright position in level ground (90 degrees to the ground) and mark the tip of the shadow cast. Wait at least 15 minutes and again mark the tip of the shadow. A line can be drawn between the two tips, is the East - West line. If you scribe a line at right angles to this line you have North and South

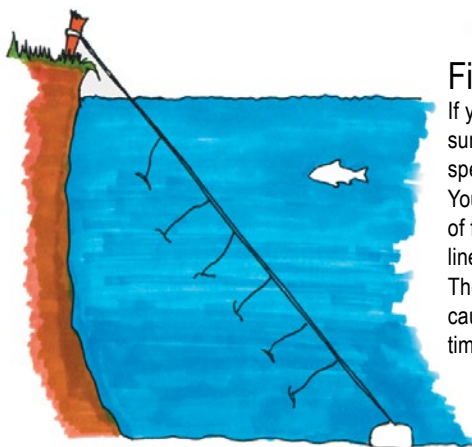
Fishing

In order to catch a fish, you must first understand how a fish looks for food and when it chooses to eat. Fish in rivers generally feed on insects whereas at sea they feed on sea creatures.

When the heat of the sun is at play along a river or lake bank, the insects begin to buzz around and then you will observe fish coming to the surface to feed. This is one of the best times to catch a fish. Fish are on a constant quest for food and this urge will drive them onto your hooks. On the seashore the best time to fish is when the tide is coming in. If the water is clear and there are many shallow pools then you might consider using the fishing spear. This is a skillful way to catch fish but requires practice.

Hooks can be made from a wide variety of materials, from the simple safety pin to chicken bones. Useful hooks can also be made from thorns. In all cases the object is to create a hook that will hold the bait and catch a fish. By their nature they will be small and require some time to make. You will also need some form of weight to bring the hook to the depth required, and of course a fishing line.



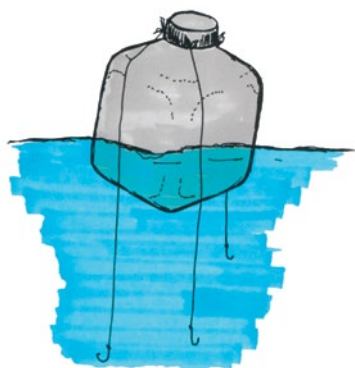


Fixed and night lines

If you were to find yourself in a true survival situation, you could not afford to spend all day sitting by the river fishing. You would therefore consider the use of fixed lines and night lines. These lines are fixed and left to do their work. The fish come in their own time and get caught. Lines are checked a couple of times a day.

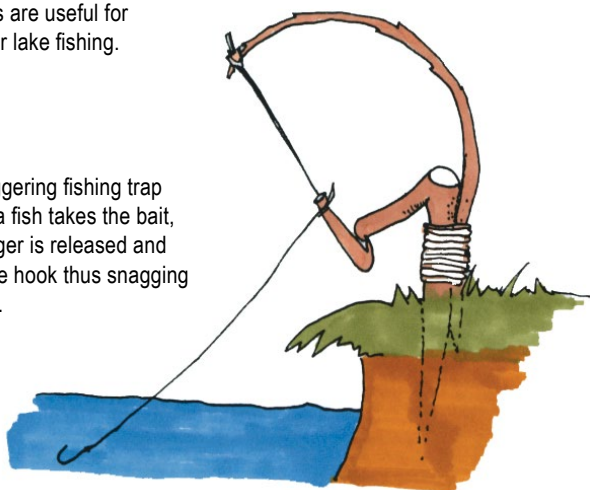
The location of fixed lines is important and observation of the waterway is the key. By

observation you will be able to see where fish are likely to be. Note where the shadows fall from trees, the deep and shallow areas, where the fish are jumping etc., other indicators are birds, in particular, birds that live on fish. Birds with pointed beaks are usually flesh eating birds and feed on fish and animal life that live near the water. Discovering the best locations to place your lines will increase the possibilities of catching a fish.



Floating fixed lines are useful for seashore fishing or lake fishing.

Self triggering fishing trap - once a fish takes the bait, the trigger is released and pulls the hook thus snagging the fish.





Baden Powell, the founder of Scouting was very keen on backwoods living. This painting by Baden Powell shows a backwoods shelter he constructed on a trip to a Canadian wilderness area in 1911.