

Fire Lighting

Having spent well over 25 years practicing to master the skills of our fore fathers I have had first hand experience of the many processes that each learner will go through to finally achieve each element of natural wilderness survival.

Fire Lighting

The ability to light a fire is the one skill that can truly make the difference between life and death when the chips are down and things have gone bad.

Problem is, nowadays few people get to practice this skill. Take barbeques, have you ever watched people light these. Half a newspaper, a gallon of lighter fluid. Throw some charcoal on top, then 3 of 4 boxes of matches later they have a flash fire going, that is, until the newspaper and lighter fluid have burned out. Then they are reduced to half an hour of puffing to get the whole thing going, by which time the clouds have gathered and turned to rain!

Survival Fire-Lighting

When the chips are down, that sort of barbeque nonsense is a non-starter. You won't have that much gear with you and the conditions will probably be poor before you begin.

The ultimate challenge is to light a fire with the first match or spark (I'll allow you two because I'm nice!) using no man-made materials. Sounds like a challenge but with the right know-how and practice it's actually not that hard!

Fire-Lighting Basics

Before you can learn anything about fire-lighting you must learn about the fire triangle. The fire triangle has three sides to represent air, heat and fuel. If any side is removed the triangle collapses and the fire goes out.

When lighting a fire, always ensure that there is adequate ventilation, that you have enough fuel and a heat source to ignite this fuel. To produce a flame, you need to be able to maintain a high enough temperature while ensuring a good air supply to the fuel to achieve a continuous reaction.

An important point to bear in mind is that the more oxygen (air) that is introduced, the brighter the fire. You can achieve a good air flow by using the wind, or forcing a draught. This way the fire is fanned to a high temperature and the fuel is burned rapidly. By reducing the ventilation the fire burns less fiercely and embers are allowed to glow, which consumes less fuel. Follow these principles and you can totally avoid smoky fires. Smoke is the result of poor combustion and with care, it can be virtually eliminated.

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Building-Blocks of a Good Fire

To get a good fire you have to start small and work your way up.

Tinder

Tinder is the first material that the flame of the match will touch, therefore its role is most important. It goes without saying that it must burn first time and must be bone dry. Good tinder includes:

- Birch bark (one of the best natural tinder material)
- Tinder fungus (probably the best natural tinder - can be lit with a single spark!)
- Pine resin
- Dry grass
- Dry pine needles
- Wood shavings
- Fluff from your clothes or pocket linings (cheating!)
- Cotton wool (cheating but you should have some in your survival kit) Kindling

The best kindling is wood shavings which are obtained from dry sticks using your penknife. These are called feather sticks and catch fire easily. Other material that make great kindling is dry twigs and other materials such as bark and pine cones.

The purpose of kindling is to carry the flame from the tinder and give it strength so that we can get down to the serious business of bigger fuel.

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Fuel

Generally, the main fuel of an outdoor fire is logs.

A wide variety of logs will be required from those slightly bigger than kindling to those about 75 - 100 mm in diameter. When cutting it is best to cut them small so that you can control the size of the fire or to feel one end onto the fire. If they are too large or you burn them at the middle the fire can easily get out of control, which not only is dangerous but wastes fuel.

Any wood you burn must be dead. Never cut down branches which are alive, they won't burn anyway because they will be too wet.

Another point to remember is that not all woods burn the same.

BGMA's Tips!

Here is a rhyme that describes the various woods:

*Beech wood fires are bright and clear, if the logs are kept a year.
Chestnut's only good they say, if for long it's laid away.
Birch and Fir logs burn to fast, blaze up bright and do not last.
It is by the Irish said, Hawthorn bakes the sweetest bread.
Elm wood burns like a church yard mold, even the very flames are cold.
Poplar gives a bitter smoke, fills your eyes and makes you choke.
Apple wood will scent your room, with an incense like perfume.
Oaken log, if dry and old, keep away the winter cold.
But Ash wood wet and Ash wood dry, a king shall warm his slippers by.*

*Beech wood fires burn bright and clear
If the logs be kept for a year;
Chestnut's only good they say,
If for years, 'tis stored away.
Birch and firwoods burn too fast
Blaze too bright and do not last;
But ash wood green and ash wood brown
Are fit for a Queen with a golden crown!*

Lighting Your Fire

The moment you've been waiting for!

Before you start, arrange your wood around the fireplace in easy reach. The last thing you want is to have to keep getting up and risk kicking your fire all over the place.

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Begin by clearing a space for your fire. Clear an area at least a meter in diameter of all combustibles. Then laying a small bed of dry twigs on the ground. This will be the base of the fire.

Using your penknife, take a dry stick and shave the surface to create a fuzz stick. If the stick is damp cut down deeper to the dry wood at the heart of the stick. These shavings should be as thin as possible, so thin that they will curl.

Now trim off some of the shavings and put them into a pile. You will use these to take the flame from the match. You will need enough shavings to make pile the size of your fist. Keep the rest of the feather sticks for kindling. You'll need half a dozen or so feather sticks so you might want to create some more at this stage.

Place the fist full of small curled shavings on the ground loosely. Don't crush them - remember the fire triangle - you need good air circulation.

Now for the tricky bit - The lighting of the match is most important. Here's the procedure:

Crouch down as close to the fire as necessary. Shield the flame from the wind with your body.

Strike the match and keep alight in cupped hands - Most matches go out because people try to light something with the match before the match is properly alight.

Hold the match in your hand flame end downhill so it can light properly.

Once it's properly alight, put the match to the shavings in the same direction as the wind is blowing so that the flame is blown towards the tinder.

As the tinder catches light, add a few of the feather sticks, taking care not to smother the flame. Continue to add more and thicker kindling. When you have a decent fire going, start adding the thinnest of the logs, again, taking care not to smother the fire.

Take your time and don't rush things - rushing at this stage can waste all your efforts!

There you have it - the traditional camp fire!