

## STEPS IN MAKING A FIRE

- Clean the surrounding area of any flammable material and watch for overhanging trees.
- A source of a flame, a spark, or other heat source. Start with a material that is easy to burn as grass, twigs, and other materials listed under tinder and kindling.
- Build a fire step by step taking all the factors listed below into account and you will succeed on your first try. Do not build a fire that is too large as it will be too hot to use for cooking and consume much fuel.

### 1 Tinder

Used to start a fire when no flame or matches are available.



### 2 Kindling

Small sticks and leaves that will catch fire from the tinder or a match are placed in a teepee fashion. Leave one side open for the tinder and/or match.

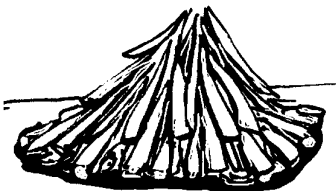
Kindling stacked in the form of a teepee



Match and/or tinder at the opening

### 3 Wood Fuel

Wood is gradually added not too much to smother the fire. The first pieces should be finger thin and then when the fire is hot enough add larger pieces.



### 4 Fire Burning to Coals and Ashes

Once the fire is at the coal stage it can be used for cooking as the heat will be fairly constant. Two stones or greenwood supports can be added to each side of the fire to support a frying pan.



### 5 Heavy Log Star Fire

If the cooking fire is to be used as a heating fire for the night large logs can be butted together as a star. The log tips are gradually pushed into the fire. The advantage of this is that the logs do not have to be cut. A long heavy log can be placed across the fire and be burnt in half. Green wood can be used selectively to retard the burning.

Advance logs to increase size of fire.

Star Shaped Fire for Heating



## TINDER

Prepare some extremely dry tinder before attempting to start a fire without matches. Once prepared, shelter this tinder from wind and dampness.

Some tinder is:

- Birch bark, resin shavings, and pitch or fat from coniferous trees (described below). They burn even when wet.
- Punk (the dry insides of rotten trunks of trees), lint from cloth, rope or twine, dead palm frond, finely shredded dry bark, dry moss, powdered dry bat droppings, dry powdered wood, bird nests, shelf mushrooms growing on tree trunks, wooly material from plants (pussy willow, cat tail), dry grass, dry crushed leaves, and wood dust produced by insects and often found under the bark of dead trees.
- These can be saturated with light oil, gasoline, or alcohol based insect repellants.

To prepare the tinder for use break it, roll it in your hands, or cut it into small powdery pieces to minimize the surface area that the sparks or hot wood have to heat to ignite and smoke.

To save tinder for future use, store it in a waterproof container.

## KINDLING

Kindling is material that also is used to start a fire. It is a step up from tinder, which is used to start a fire in very difficult situations i.e. having no matches or starter fire.

- Kindling can be small strips of dry wood, pine knots, bark, twigs, palm leaves, pine needles, dead upright grass, ground lichens, ferns, plant and bird down, and the dry, spongy threads of the giant puffball, which by the way are edible.
- Cut your dry wood into shaving before attempting to set it on fire.
- One of the best and most commonly found kindling material is punk as described under tinder. Dry punk can be found even in wet weather by knocking away the soggy outer portions with a knife, stick, or even your hands.
- Paper or gasoline may be used as tinder.
- Even when wet the resinous pitch (fat) in pine knots or dried stumps readily ignites. *See article below.*
- Loose bark of the birch tree also contains a resinous oil which ignites well.
- Arrange the kindling in a wigwam or log cabin pile to maximize the air flow.

## Pitch, Fat, or "Pine-Gum"

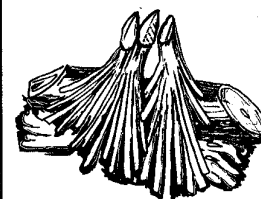
Is the resinous deposit found in old coniferous tree stumps or butt cuts on pine trees especially trees that died on the stump. The resin will have flowed down and collected at the bottom part of the tree. Old-timers and Indians swear by its use in fire making. A few shavings of pitch can start a fire at the touch of a match. Whenever you see some collect a few pieces for future use. Find pitch in the debris of rotting logs. It is yellowish in color and looks like a resin wood lamination on old stumps. Watch for old stumps that look yellowish as they might contain pitch. If the stump is gray it probably is rotten, old and soggy and contains no pitch.



Pine Needle Tinder



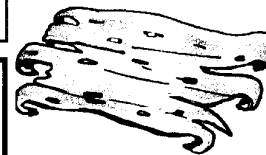
Cutting a Fuzz Stick



Placing Fuzz Sticks

## Fuzz Sticks

Cut a dry soft wood stick making sure that the shavings do not fall off the stick. These sticks can be piled, into a teepee shape on some curls of birch bark. Light the fuzz and you will have a good blaze in a few minutes. Have heavier wood ready to add to the fire.



## Birch Bark Kindling

Bark of all species of birch, especially the Paper Birch, is excellent for kindling and torches. It is full of resinous oil which blazes up and will burn in the wind.