



Fires ---- Cooking ---- Cleanup

How to build a fire.....

- Step 1: Gather your TINDER, KINDLING and FUEL.
- Step 2: Select type of FIRE LAY and FIRE PLACE you need.
- Step 3: PREPARE your FIRE SITE.
- Step 4: START your fire.

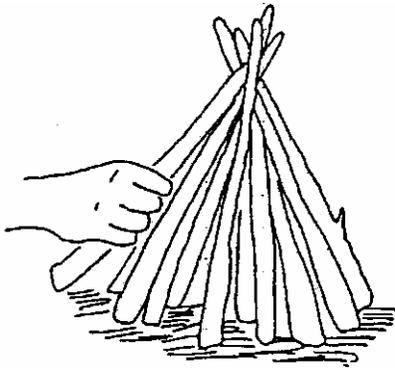
TINDER – anything that flares up when you touch it with the flame of a match. You should have a good handful of it. Grapevines, cedar or birch make excellent tinder. Pull the outer strips of bark from a dead branch or stump.....or make wood shavings with your knife.

KINDLING – the wood that catches the flame from the tinder and ignites the heavier fuel. The best kindling available are dead branches still on the tree. A few handfuls of these branches, pencil thin, make excellent kindling.

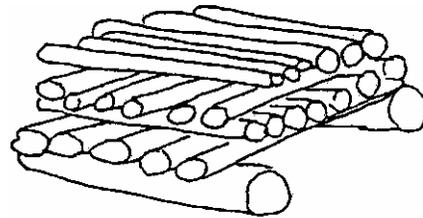
FUEL – whatever wood you can find from a fallen limb or dead branch. Break or chop it into pieces of suitable length for your fire.

FIRE LAYS – For: boiling – you want ‘flames’

For: frying, simmering, roasting or baking – you want ‘coals’



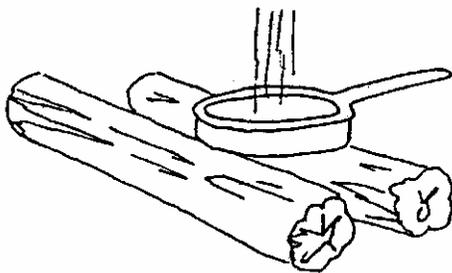
Teepee Fire



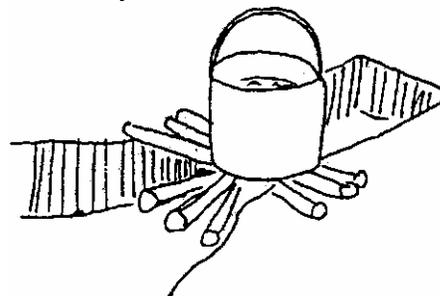
Criss Cross Fire Lay

FIREPLACES – For: short time fires

For: windy days and when you want to go easy on fuel



Hunter's Fire
(you can use rocks instead of logs)



Trench Fireplace

PREPARING your FIRE SITE – clean a spot where the fire will be so there is bare ground, gravel or rock to about 5 feet on all sides (a 10' circle). When sod is removed, it must be replaced afterwards. Then build your fireplace.

STARTING your fire – place enough tinder in the middle of your fireplace to catch fire and get a good flame going. Build your fire lay (teepee or criss cross) around it using kindling and possibly some fuel. Light your fire. When it is burning well, add fuel until you have the kind of fire you need. Remember.....

Flames for boiling.

Coals for frying, simmering, roasting or baking.

TYPES OF COOKING.....

BOIL – in a pan with grease to prevent sticking.

FRY – in a pan with grease to prevent sticking.

SIMMER – cooking just below the boiling point so it goes much slower.

ROAST – to cook in a covered pan or reflector oven at very high temperatures.

BAKE – to cook in a reflector oven at lower temperature than roasting.

TIPS FOR COOKING OVER AN OPEN FIRE.....

(these 'tips' are not required for the Camping Certification Course)

- 1) **Temperatures** – most recipes tell you the exact temperature, but you have no temperature control over an open fire or coals. There is a way. Hold the palm of your hand at a place where the food will go. Count “one hundred one,” “one hundred two” and so on. This will tell you how many seconds you can hold your hand there. You can estimate the temperature by the following:

LOW:	250° to 325°	6 to 8 seconds
MEDIUM:	325° to 400°	4 to 5 seconds
HOT:	400° to 500°	2 to 3 seconds
VERY HIOT:	over 500°	1 second or less

- 2) **Measurements** – you can do it without a teaspoon, tablespoon or cup by the following method.....

2-finger pinch	=	1/8 teaspoon
3-finger pinch	=	1/3 teaspoon
4-finger pinch	=	1 teaspoon
1 fist full	=	¼ cup
1-finger gob	=	½ teaspoon

Test them at home with a measuring cup and teaspoon so they will be sure to fit your own hand.

3) **Other tips.....**

- For easier POT WASHING, smear a thin layer of soap paste, toothpaste or grease on the outside of the pot before cooking. The soot will then come off in cold water.
 - When you FRY FISH, line your pan with foil. No cleaning will be needed, and there will be no fish smell.
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CLEAN-UP.....

- Step 1: Dishes must be washed and sterilized.
- Step 2: The fire must be put out (or the camp stove cleaned).
- Step 3: Trash and garbage must be gotten rid of properly.
- Step 4: Dish water must be gotten rid of properly.

DISHES – a large pot of water should be put on the fire just before you sit down to eat. It should come to a boil before you begin washing dishes. Pour some of it into another pot for dishwater (add cold water if too hot for your hands). The remaining water in the pot should continue to boil. All dishes and eating utensils should be dipped into the boiling water for sterilization.

FIRE OUT – sprinkle, do not pour water on the embers. Stir with a stick until only soaking wet ashes remain. Turn logs and sticks and drench both sides. Wet the ground around the fire. Never leave a fire or coals unattended.

When you are putting out the fire for the last time on a campout, cover the spot with dirt or bury the wet ashes. If sod has been removed, replace it. Make the place look as if no one has been there.

TRASH & GARBAGE –

if receptacles have been provided, use them. If not, burn whatever garbage will burn before putting out your fire – paper, peelings, steak bones, etc. The rest should either be kept in a plastic bag for disposal later with cans and jars, or placed in your Refuse Pit (see page 3 in this section).

DISH WATER –

either pour it down a PROPER drain in the area, or use a Grease Trap (see page 2)

The best rule for Clean-Up is: **MAKE NO MESS AND YOU HAVE NO MESS!!!!**

The Burning Properties of Wood

Below is a list of the most common woods for burning, there are more. It is worth remembering that ALL wood will burn better if split.

There is an old saying, "before starting a fire - collect the right wood." It is worth learning which wood is best for your fires as it will make life a lot easier. A natural result of tree recognition is to learn the burning properties of their woods

Alder: Poor in heat and does not last,

Apple: Splendid/ It burns slowly and steadily when dry, with little flame, but good heat. The scent is pleasing.

Ash: Best burning wood; has both flame and heat, and will burn when green, though naturally not as well as when dry.

Beech: A rival to ash, though not a close one, and only fair when green. If it has a fault, it is apt to shoot embers a long way.

Birch: The heat is good but it burns quickly. The smell is pleasant.

Cedar: Good when dry. Full of crackle and snap. It gives little flame but much heat, and the scent is beautiful.

Cherry: Burns slowly, with good heat. Another wood with the advantage of scent.

Chestnut: Mediocre. Apt to shoot embers. Small flame and heating power.

Douglas Fir: Poor. Little flame or heat.

Elder: Mediocre. Very smoky. Quick burner, with not much heat.

Elm: Commonly offered for sale. To burn well it needs to be kept for two years. Even then it will smoke. Very variable fuel.

Hazel: Good.

Holly: Good, will burn when green, but best when kept a season.

Hornbeam: Almost as good as beech.

Laburnum: **Totally poisonous tree**, acrid smoke, taints food and best never used.

Larch: Crackly, scented, and fairly good for heat.

Laurel: Has brilliant flame.

Lime: Poor. Burns with dull flame.

Maple: Good.

Oak: The novelist's 'blazing fire of oaken logs' is fanciful, Oak is sparse in flame and the smoke is acrid, but dry old oak is excellent for heat, burning slowly and steadily until whole log collapses into cigar-like ash.

Pear: A good heat and a good scent.

Pine: Burns with a splendid flame, but apt to spit. The resinous Weymouth pine has a lovely scent and a cheerful blue flame.

Plane: Burns pleasantly, but is apt to throw sparks if very dry.

Plum: Good heat and aromatic.

Poplar: Truly awful.

Rhododendron: The thick old stems, being very tough, burn well.

Robinia (Acacia): Burns slowly, with good heat, but with acrid smoke.

Spruce: Burns too quickly and with too many sparks.

Sycamore: Burns with a good flame, with moderate heat. Useless green.

Thorn: Quite one of the best woods. Burns slowly, with great heat and little smoke.

Walnut: Good, and so is the scent. Aromatic wood.

Willow: Poor. It must be dry to use, and then it burns slowly, with little flame. Apt to spark.

Yew: Last but among the best. Burns slowly, with fierce heat, and the scent is pleasant.