

# **Fires**

## **Fire Safety**

It is important to know how to build, light, and extinguish fires safely. Contact the appropriate agency to obtain the fire regulations for the area in which you will be camping. Agency personnel may be willing to meet with the young women to teach fire safety.

Following are some guidelines for fire safety:

1. Never light a fire anywhere without permission from the owner of the land. In the case of government owned property such as parks, reservations, and forests, follow the regulations for the area.
2. Learn fire fighting procedures before you go camping.
3. Immediately after you arrive at camp, learn where any fire fighting equipment is located. Make sure you know how to use it.
4. When regulations permit an open fire, build the fire in an open area of dirt, rock, or sand at least six feet away from any trees, bushes, or fallen logs. Never build a fire against a fallen tree, a large log, or a stump with roots that go into the ground.
5. Clear the ground within a radius of six feet from the fire by scraping away dry leaves, dry grass, twigs, or pine needles. Replace these items when you are through with your fire. Hollow out a section of ground in the center. Rocks conduct heat and may be used to line the hole. Avoid rocks containing limestone, shale, or moisture because they may explode when heated. In a grassy area, dig up the turf with a shovel and store it in a moist, shady spot. After the fire has been extinguished, replace and water the turf so that it will continue to grow.
6. Do not build fires larger than you need for your purpose. Cooking fires should be just large enough to heat the food. Large fires waste fuel, are hard to control, and are difficult to work over.
7. Keep fires under control. Fire fighting tools such as water, sand, and shovels should be readily available.
8. Stay close to the fire and watch it carefully. Never leave a fire unattended, and never go to sleep before the fire is completely out.
9. Extinguish the fire completely before leaving the area.

## **Gathering Fuel**

Gather tinder, kindling, and fuel before beginning to build the fire. Keep the woodpile close enough to the fire for convenience, but far enough away for safety.

Tinder is pieces of wood or vegetation that are longer but no thicker than a match. Fine twigs, bundles from tops of bushes and weeds, pieces of pine, thin pieces of bark, and dried leaves and grass make good tinder.

Kindling is dry sticks and twigs that are six to twelve inches long and just thicker than tinder up to the thickness of a thumb. Larger pieces of wood may be split for kindling. Kindling should be dry enough to snap when broken. Sticks that bend without snapping are probably green and hard to burn.

Fuel is firm pieces of wood that are larger than kindling, including fairly large logs, depending on the fire's use.

## **Types of Fires**

The type of fire you build will depend on what you plan to use it for.

## Tepee Fire

Build a tepee fire as the beginning for all other types of fires. It is good to use in reflector oven baking because it makes a high flame. To build a tepee fire, place a large handful of tinder in the center of the fire area. Surround the tinder with sticks of kindling arranged so that the tops of the pieces touch like the poles of a tepee. Arrange larger sticks of fuel in tepee fashion around the kindling. Leave a small space on the side of the tepee that faces the wind to allow air to reach the middle of the fire. Reach into this space with a match and light the tinder. The flame will spread to the kindling and then to the fuel. More fuel can be added as needed. Keep the fire compact, with each piece of wood touching other pieces.

## Crisscross Fire

A crisscross fire is used when you need a deep bed of coals such as in Dutch oven cooking, wiener roasts, and foil cooking. Because it burns for a long time, it is also good for campfire programs. To build a crisscross fire, first build a small tepee fire between two large pieces of wood. Using the large pieces for support, lay several layers of fuel in a crisscross fashion over the top of the tepee fire. Light the tepee fire. The crisscrossed pieces of fuel will heat up and catch fire.

## Star Fire

The star fire is sometimes called the lazy man's fire because the fuel is simply pushed into the fire as it burns. Begin by building a tepee fire. Once it is burning, place pieces of fuel in a star fashion around the fire. Push these pieces into the fire as necessary. Use this fire for slow heat, the kind needed for one-pot and tripod cooking.

## Extinguishing Fires

### Campfires

Extinguish regular campfires by smothering them with dirt or sprinkling them with water.

To extinguish campfires with dirt, do the following:

1. Let the fire burn down.
2. Separate the burning pieces, but keep them within the fire area.
3. Pour dirt over the hot coals and ashes to smother the fire. Keep stirring the coals and ashes until they are extinguished.
4. Make sure the fire is completely out by holding your hands over the ashes to see if you feel any heat. Use more dirt if necessary.
5. When the fire is cold, cover the area with dirt. Replace any sod you have removed. Make the spot look as if no one has been there.

To extinguish campfires with water, do the following:

1. Wet the area around the fire.
2. Sprinkle water on the fire. Do not pour water on the fire because the resulting steam may burn you.
3. Spread out the coals with a stick.
4. Sprinkle the coals again with water. Turn smoldering sticks and wet them on all sides.
5. Pour water on the fire, and stir until only soaking wet ashes remain.
6. Make sure the fire is completely out by holding your hands over the ashes to see if you feel any heat. Use more water if necessary.
7. When the fire is cold, cover the area with dirt. Replace any sod you have removed. Make the spot look as if no one has been there.

## Accidental Fires

If a fire starts accidentally, do the following:

1. Send someone to report the fire to local fire fighters.
2. Use firefighting equipment immediately.
3. If a tent catches fire or there is a fire near a tent, pull out the tent poles. Fire in a tent without poles can be smothered by stamping on the tent or throwing water on it, but a standing tent will burn quickly.
4. Follow the instructions of your leaders. If your clothing begins to burn, roll yourself in the dirt; wrap yourself in a blanket, sleeping bag, or towel; or jump into a body of water. Do not run. Running makes the fire burn faster. If a grease fire begins while you are cooking, pour salt, soda, flour, or sand on it. Do not pour water on flaming grease. If possible, smother the fire by covering it with a metal lid, or use a small aerosol fire extinguisher.

## Starting a Fire without Matches

### Flint and Steel

For emergency purposes, many campers carry flint and steel as part of their equipment. You may purchase a small kit at a sporting goods store, or you may find the flint in your area. Flint is a very hard rock with sharp edges that can sometimes be found in the gravel used on roads. Other types of very hard rock may also produce sparks. Test them by striking them with a piece of steel, such as the backside of a closed pocketknife blade or a steel tool. To start a fire using flint and steel, make a nest shape out of fine steel wool or lint from a clothes dryer. This is the spark catcher. Add a few pieces of very fine tinder to it and shield it from the wind. Strike the flint with the steel until sparks ignite the spark catcher. Blowing the sparks can help the flame burn. Add more tinder and kindling gradually.

### Magnifying Glass

A magnifying glass (or a pair of eyeglasses with thick lenses) can also be used to start a fire if the sun is shining brightly. Adjust the glass to focus a bright spot of sunlight on your tinder or spark catcher. It should smolder within a few minutes. Blow the flame gently and add more tinder gradually.

## Waterproofing Matches

Keep matches in waterproof containers. Store them in more than one place in case of rain or accident.