

# The Fire Triangle

Fire needs three ingredients: fuel, heat and oxygen. When a fuel—such as wood or flammable gas—is heated by spark or other source of heat, it combines rapidly with oxygen and bursts into flame. For a fire to start, all three of these ingredients must be present. A fire is extinguished by removing its fuel, heat or oxygen.

## ***Starve It—Remove Fuel***

A fire's fuel might be paper, wood, oil, solvents or gas. Removing the fuel from a fire can be dangerous, but there are exceptions. For example, you can extinguish burning gas that flows from a pipe by turning off the gas valve.

## ***Cool It—Remove Heat***

Wood, paper and cloth fires are best cooled with water, but other types of fires require special chemicals to reduce heat and flame.

Extinguishers are clearly marked according to the type of fires they can put out.

Never use water on grease, electrical or flammable liquid fires.

## ***Smother It—Remove Oxygen***

In order for a fire to burn, it normally needs air that's at least 15 percent oxygen. Covering a pan of flaming food or closing an oven door cuts off the oxygen supply and smothers the flames. Some fire extinguishers use chemicals, powders or liquefied gases to blanket a fire and remove its oxygen supply.

**Remember:** The best way to put out a fire is to prevent it by keeping fuel, heat and oxygen apart. If a fire starts and you are certain it poses no immediate threat, starve it, cool it or smother it to extinguish the flames. If you have any doubt about the seriousness of a fire, don't fight it—get out and report it.

