

# FIRE SAFETY

When we look at a fire we are actually watching a chemical reaction. The name we give to this reaction is "combustion". This sounds quite complicated but it isn't. Fire only needs three things to allow it to happen:

**OXYGEN** The air contains 21% oxygen.

**FUEL** Anything that burns is called fuel: We can break this down into

SOLID - wood, plastic, fabric etc:

LIQUID - petrol, oil etc

GAS - methane, butane

**HEAT** There are many sources of heat, some of which cannot be seen.

All we need to make a fire is heat to make fuel hot enough to burn.

The fuel will give off flames and of course will produce smoke.

## The Fire Equation

Heat + Oxygen + Fuel = Fire and Smoke



**SMOKE** This is the biggest danger to us. Smoke takes the place of oxygen in the air so that we cannot breathe. Smoke is extremely poisonous.

1. Make a copy of the fire equation. Replace the words 'heat' and 'fuel' with real things which you have in your house. Do six examples. For example

Matches + Oxygen + Newspaper = Fire



2. Make a list of all the sources of heat in your house.
3. Which room has the most sources of heat?
4. Which room is most likely to catch fire?

you will need:  
a pencil and  
paper

