

# FIRE SAFETY

## WHAT IS A FIRE?



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**

## Homework

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?