Burning

10SCIE - Fire & Fuels

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Learning Outcomes

- To describe what is needed for burning to occur.

Starter

How would you put this fire out?

Keywords

- **Combustion**: A chemical reaction between a **fuel** and **oxygen**. Makes heat, light and other product
- **Fuel**: Any material that releases energy when burned

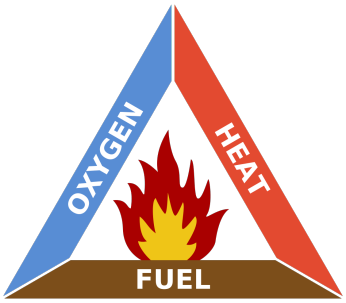
- **Vapour**: Many small particles of liquid in the air

- **Ignition**: Starting combustion

When something is burned, a chemical reaction occurs between the fuel and oxygen.

$$magnesium + oxygen \rightarrow \text{magnesium oxide}$$
$$carbon + oxygen \rightarrow \text{carbon dioxide}$$

Fire Triangle



If all three sides of the triangle are present, a fire could start. By removing any of the three sides you can put out a fire.

Fire-Proof Paper Practical

How can you set paper on fire without destroying it?

Aim: Design a simple experiment to show how fuels burn.

Materials

Meths (ethanol)	Water
Paper	Beaker
Tongs	Bunsen

- 4 groups
- 5mins to think of a method
- Students write down
- 5mins to review methods
- Select best method
- Students run experiment METHS INVISIBLE
- Dip paper in 1:1 meths:water mix
- Use beakers and sink
- Light paper, let burn out
- CLEAN UP, SEATED