



# A Bit of Bonfire Chemistry

You have been given five white slats. They all look the same. Using the flame test equipment try and identify which one is which.

- 🔥 Copper gives a blue/green flame.
- 🔥 Sodium gives a yellow flame.
- 🔥 Potassium gives a lilac flame.
- 🔥 Calcium gives a red flame.
- 🔥 Magnesium gives no colour at all.

Method

***This experiment is only to be done in a science lab under the supervision of a science teacher***

- 1) Dip the testing wire into some dilute (0.5M) hydrochloric acid.
- 2) Place the tip of the wire into a colourless Bunsen flame.
- 3) Repeat steps one and two until there is no colour in the flame.
- 4) Dip the wire into the hydrochloric acid and then one of the samples. Place the tip of the wire into the flame and note the colour produced.
- 5) Repeat the experiment for each of the samples and record your results.

Salt	A	B	C	D	E
Contains					

**Safety:** All these salts should be considered to be poisonous and corrosive. Wear goggles at all times. Avoid spills. Clear and spills with a dustpan and brush and wipe down surfaces. Let the teacher know if you get any of the chemicals on your skin or clothes.

**Teachers note.**

- 🔥 Standard Flame test kit should be used and where possible stripped of previous debris.
- 🔥 Chemicals to be used are. Anhydrous Copper Sulphate (Hazardous)
- 🔥 Magnesium sulphate, Calcium Chloride, Potassium Chloride and Sodium Chloride.
- 🔥 Small beakers containing 25cm<sup>3</sup> of 0.5M hydrochloric acid should be adequate.

***Please do not attempt this experiment unless you have completed your own schools Risk Assessment following Coshh assessment.***