

# Elements and Compounds: Rusting

WC 1<sup>st</sup> October  
Lesson 3  
Year 6

# Title: Rusting

- **WALT: Describe what causes rusting**
- I must be able to state why rusting of iron occurs
- I should be able to set up a practical to demonstrate this and state the control, input and output variables
- I could write up my practical correctly without any help at all

Last lesson we learnt that when a metal reacts with oxygen it is called.....

- Metal oxides are always .....
- Non-metal oxides are always .....

# Let's read p. 238 of the red books together

- 1) Explain what rusting is.
- 2) Why do we keep sodium and potassium in bottles of oil?
- 3) Why is iron such a useful metal?

# You are going to do an experiment to show how air causes rusting

- Set up 4 test tubes with a nail in each and:
  1. Water and air (no bung)
  2. Boiled water and oil
  3. Boiled water and air
  4. Anhydrous copper sulphate and bung (no water)
- What is the control and what are the input and output variables? Write it down.
- Based on page 239 of the books, what do you expect to happen with our results? Write it down.

# If you are finished

- Read page 240 about a further experiment on rusting.
- Summarise in your own words what the experiment proved.
  - The experiment showed that air contains about 20% oxygen.
  - This was shown since the rusted wire wool absorbed about 20% of the air in the test tube it was placed in (shown by the increase in water level)

# Plenary

- If a plane crashed in a desert, it rarely rusts. In pairs, explain to your partner why rusting doesn't often occur in deserts.
  - Desert air is usually too dry – it doesn't contain enough water vapour for rusting.