

Metals and Alloys

- What are the properties of metals?
- What do we use metals for?
- Why are metals useful?
- What happens when we react metals with oxygen, water and dilute acid?
- What is the Reactivity series?
- What is an ore?
- How can we extract metals from ores?
- What is corrosion?
- What is rusting?
- How can we prevent corrosion?
- What is meant by “sacrificial protection” of metals?
- How can we make electrochemical cells?
- What is an electrolyte?
- What is an alloy?
- How can we change the properties of alloys?



Materials

- **What is a plastic?**
- **What is a polymer?**
- **What is a monomer?**
- **What is meant by “polymerisation”?**
- **What is the difference between thermosoftening and thermosetting plastics?**
- **What happens when we burn plastics?**
- **What is meant by a “biodegradable” plastic?**
- **What new materials have humans made?**
- **What do we use ceramic materials for?**

Fertilisers

- **Why are fertilisers important?**
- **What elements do we find in fertilisers?**
- **What is meant by “percentage composition” in fertilisers?**
- **What natural fertilisers can we use?**
- **What is the environmental impact of using fertilisers?**

Nuclear Chemistry

- How are elements formed?
- What are the sources of background radiation?

Chemical Analysis

- How can we test the purity of substances?
- How can we find out which elements are in an unknown substance?
- How can we use chromatography to identify substances?
- How can we use pH testing to tell us about unknown substances?
- How can we separate mixtures?