

Science Department

Foundation Stage Scheme of Work

Year 8 The Periodic Table & Metals and their uses

14 Lessons

Aims: This unit of work is designed to introduce students to The Periodic Table, having a particular focus on Metals and their uses.

Links to KS4:

Chapter 1 Chemistry – The Periodic Table

Chapter 2 Chemistry - Bonding in metals

Chapter 3 Chemistry – Formula mass

| Key Skills | Literacy Links: | Numeracy Links: |
|---|---|---|
| To develop an understanding of The Periodic Table. To develop an understanding of why metals are used in the World. To develop practical skills in a Science labs. | Key Words: metal, group, period, alkali metals, halogens, metallic Be able to read and use these keywords within Scientific situations both verbally and written. | Be able to calculate relative formula mass using a Scientific calculator. |
| Assessment | Cross-Curricular Links | |
| Pink sheet teacher assessed activity – Alloys. | History – The history of | of the Periodic Table. |
| • 50 mark test which will focus on the following key areas: Layout/development of the periodic table, trends in the Periodic Table, Physical and Chemical changes, Corrosion and Reactions of metals with water/acid. | SMSC opportunities and British values | |

Opportunities for further learning

Homework for year 8 is set on a weekly basis. Below are a range of different activities which could be used throughout the unit.

- **Option 1:** Students could research catalytic convertors including cost in different cars etc.
- Option 2: Students could research electrolysis and why it is used.
- Option 3: Research and bring in notes about the physical and chemical properties of metals.
- **Option 4:** Students research the electronic structure of a range of different metals and compare them.
- **Option 5:** Research the properties of group 7 (Halogens).
- Option 6: Research a range of used of alloys.
- **Option 7:** Drawing a graph.
- Option 8: Research Newland and his influence on the development of the Periodic Table.
- **Option 9:** Finding a range of examples of chemical and physical changes.