



Year 9 Chemistry Learning Map



- TERM 1 -

Useful Chemical Reactions

Metals are vital in the construction of new buildings. We will explore common physical properties of metals and study their main chemical properties. We will also explore the idea that reactions can occur at different speeds and how that links to the general reactivity series of metals.

Chemistry of the Atmosphere

In this topic we learn about the composition of the Earth's atmosphere and how natural processes such as volcano emissions, lightning, and bombardment by solar particles from the sun have influenced the atmosphere. Moreover, we will study the effects of human activity on human health, crops and ecosystems.



LINKS TO PRIOR LEARNING

Previously you would have learnt:

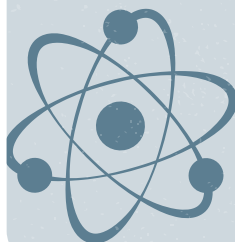
- About grouping together everyday materials based on their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. You would also recall that dissolving, mixing and changes of state are reversible changes and that the formation of new materials, including changes associated with burning and the action of acid on bicarbonate of soda, is not usually reversible.
- About the production of carbon dioxide by human activity and the impact on climate.
- About the acidity of non-metal oxides.



- TERM 2 -

Atomic Structure

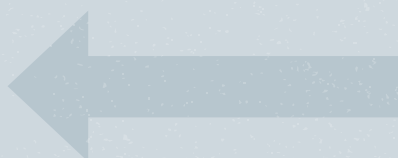
In this topic we will learn how our ideas of atoms have changed over time and that all matter is composed of atoms, each of which has a central nucleus and one or more electrons that travel in orbits around the nucleus, like satellites around the earth.



LINKS TO PRIOR LEARNING

Previously students will have learnt:

- About the particle model of matter.
- How Dalton's ideas about atoms helped explain the properties of matter.
- How elements are arranged in the periodic table.



- TERM 3 -

Structures and Bonding

Bonds are the fundamental forces of attraction that hold our universe together. In this topic we will learn how bonds are formed and broken through bond physical and chemical changes.



LINKS TO PRIOR LEARNING

Previously students will have learnt:

- About the particle model of matter.
- How Dalton's ideas about atoms helped explain the properties of matter.
- How elements are arranged in the periodic table.

