



Particles and Their Behaviour

Particle Model

The 3 States of Matter

How can we describe and compare the properties of solids, liquids, and gases?

Changes of State

How do substances change from one state to another, and what happens to the forces between their particles?

Heating and cooling practical

How can we safely measure and record temperature changes as a substance changes of state?

Change of state graphs

What does a heating or cooling graph tell us about the energy changes happening to the particles?

Determining states from numerical data

How can we use melting and boiling points to figure out if a substance is a solid, liquid, or gas?

KEY VOCABULARY

Melting Point, Freezing, Evaporation, Condensation, Diffusion, Property, Pressure, Kinetic, Limitations (of models), SI unit, Risk

Particle Behaviour

Diffusion

How do particles move and mix in liquids and gases, and how does temperature affect this?

Gas Pressure

What causes gas pressure, and why do gases expand when they are heated?

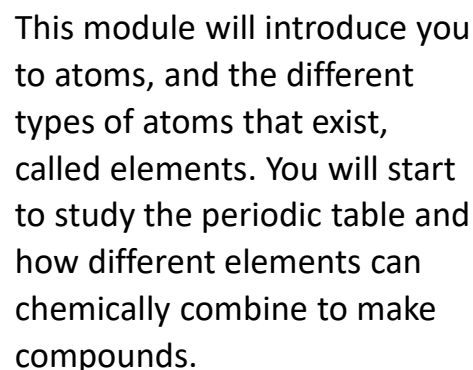
Chemistry is the study of how reactions work.

To understand Chemistry you need to understand the behaviour of particles. This is a theme that will be constantly referred to in future modules.

All Matter is made up of particles and how they behave on a microscopic level affects all materials.



The foundations of chemistry are built on the structure of atoms, the tiniest particles which make up all matter in the universe!



KEY VOCABULARY

**Atom, Element, Compound, Mixture,
Reactant, Product, Proton, Neutron, Electron,
Positive, Negative, Nucleus, Chemical formula,
Observe, Bonds, Nanometer**



7.2 Atoms, elements and compounds

