



Year 7 Chemistry
Curriculum



Year 7 Chemistry

Introduction

This document outlines what students will learn in Chemistry in Year 7.

1. Introduction to Chemistry

What is chemistry?

- Definition and scope of chemistry.
- The role of chemistry in everyday life.

The Scientific Method

- Steps involved in the scientific method.
- Conducting experiments and collecting data.

Atoms and Elements

- Basic structure of an atom (protons, neutrons, electrons).
- Elements and their symbols.
- The periodic table.

2. Properties of Matter

States of Matter

- Solids, liquids, and gases.
- Particle theory to explain the properties of matter.

Physical Changes

- Changes that do not alter the substance's identity (e.g., melting, freezing, boiling).

Chemical Changes

- Changes that produce new substances (e.g., burning, rusting)



3. Mixtures and Solutions

Mixtures

- Homogeneous and heterogeneous mixtures.
- Separation techniques (e.g., filtration, distillation, chromatography).

Solutions

- Solutes and solvents.
- Concentration of solutions.
- Solubility.

4. Acids and Bases

Properties of Acids and Bases

- Indicators (e.g., litmus paper, universal indicator).
- pH scale.

Neutralisation

- Reactions between acids and bases.
- Salts.

5. Elements and Compounds

Elements

- Metals, non-metals, and metalloids.
- Properties of metals and non-metals.

Compounds

- Formation of compounds from elements.
- Chemical formulas.
- Ionic and covalent bonding.

Practical Activities and Investigations:

- Conduct experiments to investigate the properties of matter, acids, and bases.
- Explore the periodic table and the properties of different elements.
- Investigate the separation of mixtures using various techniques.
- Carry out reactions to observe chemical changes.



Assessment

- Regular quizzes and tests.
- Practical assessments.
- Project work (e.g., researching a specific chemical reaction or element).

Evaluation and Review

The curriculum will be reviewed annually to ensure its effectiveness. Feedback from students, teachers, and parents will be considered in the review process.

Updated August 2024

Next review: August 2025