

Chemistry



Unit 1 : Structure and Bonding and the properties of matter

Students will study the following:

- Metallic bonding
- Ionic bonding and structure
- Simple covalent molecules
- Giant covalent molecules
- Nanoparticles
- Ceramics and composites

Unit 2: The Periodic Table

Students will study the following:

- Historical development of The Periodic Table
- Group 1
- Group 7
- The Noble gases
- The transition metals

Unit 3 : Chemical Analysis

Students will study the following:

- Formulations
- Identification of common gases
- Flame tests
- Tests for hydroxides, sulfates, halides and carbonates.

Unit 4 : Organic Chemistry 1

Students will study the following:

- Fractional distillation
- Cracking
- Properties of alkanes and alkenes
- Addition polymerisation
- Life cycle assessments and recycling

Unit 5 : Chemistry of the Atmosphere

Students will study the following:

- The composition and evolution of the Earth's atmosphere
- Greenhouse gases and global warming
- Acid rain

Unit 6 : Extraction of metals

Students will study the following:

- Blast furnace
- Using electrolysis to extract metals
- Alloys
- Recycling of metals

Unit 7 : Rates of reaction

Students will study the following:

- Collision theory
- A variety of methods to measure the rate of reaction
- Using graphs to calculate the rate at a given time