



# Chemistry

The International A Level in Chemistry is divided into two years (AS & A2). During these two years the student will study a total of six units. Units 1, 2 and 3 are taught during the AS, whereas units 4, 5 and 6 will be taught during the second year. Units 3 and 6 are practical related.

## AS

### Unit 1: Structure, Bonding and Introduction to Organic Chemistry

- Formulae writing, equation writing and calculating chemical quantities
- Atomic structure and the Periodic Table
- Understand chemical bonding (ionic, covalent and metallic)
- Alkanes and alkenes

### Unit 2: Energetics, Group Chemistry, Alcohols and Halogenoalkanes

- Energetics in Chemistry
- Intermolecular forces
- Periodic table: groups 2 and 7
- Redox reactions in halogens and their compounds
- Rate, direction and extent of chemical change
- Alcohols, halogenoalkanes and spectra

### Unit 3: Practical Skills in Chemistry I

The unit covers all practical assessment related to units 1 and 2.

**Assessment:** Written examinations for all units



# Chemistry

**A2**

## **Unit 4: Rates, Equilibria and Further Organic Chemistry**

- Kinetics
- Organic reaction mechanisms
- Entropy and energy
- Equilibria related to chemical change
- Carbonyl compounds, carboxylic acids and chirality

## **Unit 5: Transition Metals and Organic Nitrogen Chemistry**

- Electrode potentials
- Redox and transition metals
- Arenes, amines, amides, amino acids and proteins
- Organic synthesis
- This unit draws on all other units within the GCE in Chemistry and students are expected to use their prior knowledge when learning about these areas.

## **Unit 6: Practical Skills in Chemistry II**

The unit covers all practical assessment related to units 4 and 5.

**Assessment:** Written examinations for all units

**Prerequisites:** A good knowledge of the GCSE Chemistry specification is assumed. The knowledge for Units 4 and 5 is built on units 1 and 2.