

Key Stage 3

Year 9

After Christmas in Year 9, students cover the following modules from the AQA GCSE Chemistry course:

4.9 – Chemistry of the Atmosphere

The changing composition of the atmosphere, pollution and climate change.

4.10 – Using Resources

How we use the Earth's resources and produce potable water. Composite materials, ceramics & plastics.

Key Stage 4: GCSE

Year 10

In Year 10, students cover the modules that are examined in Paper 1 of the GCSE examination. In chronological order:

4.1 – Atomic Structure & the Periodic Table

The nature and history of the atomic model and the Periodic Table.

4.2 – Bonding, Structure & the Properties of Matter

How matter is held together and how this affects its properties.

4.4 – Chemical Changes (Part 1)

The reactivity of metals and electrolysis.

4.3 – Quantitative Chemistry

Chemical calculations. How much will we make?

4.4 – Chemical Changes (Part 2)

The reactions of acids.

4.5 – Energy Changes

The transfer of energy during reactions and electrochemical cells.

Year 11

In Year 11, students cover the remaining modules that are examined in Paper 2 of the GCSE examination. In chronological order:

4.6 – The Rate & Extent of Chemical Change

The rate of reactions and chemical equilibrium.

4.7 – Organic Chemistry (Part 1)

Chemicals from crude oil, alkanes, alkenes & addition polymers.

4.8 – Chemical Analysis

Identifying substances by practical testing and instrumental methods.

4.7 – Organic Chemistry (Part 2)

Alcohols, carboxylic acids, esters & condensation polymers.

Over both years, students complete a series of eight 'Required Practicals' to demonstrate experimental skills.

A Level

Year 12

A Level content is split into six teaching modules. In Year 12, students cover:

- 1 - Development of Practical Skills in Chemistry
- 2 - Foundations in Chemistry
- 3 - Periodic Table and Energy
- 4 - Core Organic Chemistry

Following the Mock exam, students cover 'Enthalpy & Entropy' and 'Aromatic Chemistry' from Module 5.

Year 13

In Year 13, students cover:

- 1 - Development of Practical Skills in Chemistry
- 5 - Physical Chemistry and Transition Elements
- 6 - Organic Chemistry and Analysis

Over both years, students complete a series of practicals (PAGs) to demonstrate experimental skills. Completion of these is needed for the A-level to be endorsed, though they have no influence on the final grade.