

OCR AS & A Level Chemistry (A)

Course Overview

A Level Chemistry will give you an exciting insight into the contemporary world of chemistry. It covers the key concepts of chemistry and practical skills are integrated throughout the course. This combination of academic challenge and practical focus makes the prospect of studying A Level Chemistry highly appealing. You will learn about chemistry in a range of different contexts and the impact it has on industry and many aspects of everyday life. You will learn to investigate and solve problems in a range of contexts. Key features

- Simple straightforward assessment through examinations.
- Based on key concepts in chemistry
- Opportunities to build practical skills through a range of experiments and investigations.

Course Content

Year 12

- **Module 1:** Development of practical skills in chemistry
- **Module 2: Foundations in chemistry.** This includes: Atoms, compounds, molecules and equations; Amount of substance; Acid–base and redox reactions; Electrons, bonding and structure.
- **Module 3: Periodic table and energy.** This includes: The periodic table and periodicity; Group 2 and the halogens; Qualitative analysis; Enthalpy changes; Reaction rates and equilibrium (qualitative).
- **Module 4: Core organic chemistry.** This includes: Basic concepts; Hydrocarbons; Alcohols and haloalkanes; Organic synthesis; Analytical techniques (IR, MS).

Year 13

In addition to the modules studied as part of Year 12, the following modules are studied in Year 13:

Module 5: Physical chemistry and transition elements. This includes: Reaction rates and equilibrium (quantitative); pH and buffers; Enthalpy, entropy and free energy; Redox and electrode potentials; Transition elements.

Module 6: Organic chemistry and analysis. This includes: Aromatic compounds; Carbonyl compounds; Carboxylic acids and esters; Nitrogen compounds; Polymers; Organic synthesis; Chromatography and spectroscopy (NMR).

Assessment

For the new A levels from September 2015 the AS Level examinations do not contribute to the final grade awarded for A Level at the end of Year 13.

In Year 12 you will sit the following examinations:

- **Breadth in chemistry:** 70 Marks, 1h30mins written paper (50% of AS Level)
- **Depth in chemistry:** 70 Marks, 1h30mins written paper (50% of AS Level)

In Year 13 you will sit the following examinations:

- **Periodic table, elements and physical chemistry (01):** 100 marks, 2h15mins written paper (37% of A Level) - assesses content from modules 1,2,3 and 5
- **Synthesis and analytical techniques (02):** 100 marks, 2h15mins written paper (37% of A Level) - assesses content from modules 1,2,4 and 6
- **Unified chemistry (03):** 70 marks, 1h30mins written paper (26% of A Level) - assesses content from modules 1 to 6



Trinity 6th form Catholic College

Entry Requirements

To follow A Level Chemistry successfully, students should have gained a minimum of two grade 5, at higher tier. It is anticipated that students will have studied Chemistry as a Separate Science subject or will have followed the Combined Science route. A Level Chemistry has approximately 20% maths content therefore we require a minimum GCSE Mathematics Grade 5 but will consider each applicant of an individual basis.

Progression

A Level Chemistry is a good facilitating subject and can lead directly into further study at university across a range of subjects. Science based A Level subjects can also be of value to many vocational options post-18 because of the transferable skills developed throughout the course.

Course Contact

Dr Adrian Frank
Mr Nick Mitchinson
Mrs Joanne Crossley

frank.a@trinitycatholiccollege.org.uk
mitchinson.n@trinitycatholiccollege.org.uk
crossley.j@trinitycatholiccollege.org.uk

