

Chemistry

A Level (AQA)

A level Chemistry is designed to encourage students to: gain hands-on practical skills and data analysis skills, appreciate how science works and its relevance beyond the laboratory, develop an enthusiasm for Chemistry, and study Chemistry in a contemporary context.

Entry Requirements

- **Minimum Standard:** Five or more grades at 4+ in GCSE or equivalent, including English and Maths.
- **Additional Criteria:** Minimum standard with a 6+ in Chemistry or a 6-5 in Combined Science. A 5+ in Maths is also required.

What will you learn?

A level Chemistry is a two year course leading to a full A level. From the first year, this course stimulates the enthusiasm and independence of students, emphasising the ways in which Chemistry underpins modern life and how chemists work. The course also focuses on developing practical skills and investigation methods. The content is split into three main sections: Physical Chemistry, which includes Atomic Structure, Amount of Substance, Bonding, Energetics, Kinetics, Chemical Equilibria, Redox reactions, Thermodynamics, Rate equations, Electrochemistry, Acids and Bases. Organic Chemistry includes Alkanes, Halogenoalkanes, Alkenes, Alcohols, Analysis, Isomerism, Aldehydes, Ketones, Carboxylic acids, Aromatics, Amines, Polymers, DNA and proteins, Synthesis, NMR and Chromatography. Inorganic Chemistry includes Periodicity, Group 2, Group 7, Period 3 and their oxides, Transition metals and Reactions of ions.

How will you learn?

You will learn AQA A-Level Chemistry through a mix of classroom lessons, practical lab work, and independent study broken into three core branches: physical, inorganic, and organic chemistry.

- **Physical Chemistry:** Covers mathematical and theoretical concepts like kinetics, equilibria, thermodynamics, and electrode potentials.
- **Inorganic Chemistry:** Explores periodic trends, Group 2, Group 7, and transition metals.
- **Organic Chemistry:** Teaches carbon-based molecules, reaction mechanisms, synthesis pathways, and analytical techniques like NMR.
- **Practical Endorsement:** You will complete 12 required practicals in class to build lab skills, which teachers assess separately alongside exam questions on practical methods

Alongside your written exams, you will work toward the Practical Endorsement. This is a continuous teacher assessment based on your performance during the 12 required practicals across the two years.

How will you be assessed?

35%

Paper 1 – 35% Inorganic and Physical Chemistry (and relevant practical skills).
Written exam: 2 hours.

35%

Paper 2 – 35% Organic and Physical Chemistry (and relevant practical skills).
Written exam: 2 hours.

30%

Paper 3 – 30% Synoptic (any topic) and Practical Skills (inc. multiple choice).
Written exam: 2 hours.

Where will it take you?

Chemistry unlocks the door to a realm of further study and career opportunities, including medical, research, and product design. When paired with Biology A-Level, it allows students to take their pick of high quality university courses. This is an academic course which would suit students who enjoy science and can envision a future career in a scientific field.

Who should you talk to?

Please speak to Mrs Jones or email:
liz.jones@thebourneacademy.com