A LEVEL

Chemistry

Chemistry is the study of substances, what they are made of, their interaction with each other and the role they play in living things. Plainly, it helps us understand the world in which we live.

This A Level course is a fascinating exploration of atomic structure, chemical bonding, and reactions of organic and inorganic chemicals and builds upon knowledge and understanding from GCSE.

The subject is academically rigorous but also hugely rewarding; students will learn the value of Chemistry, both in subject and application, the impact it has on society today and how it may be used responsibly.

COURSE CONTENT

This two-year course contains topics on physical, inorganic and organic chemistry. Core practicals are embedded into the teaching, covering a variety of laboratory procedures and techniques to help students gain confidence with apparatus and substances.

The course is structured around the following topics:

Year 12:

- Atomic Structure and Bonding
- Energetics, Kinetics and Redox
- Groups 2, Alkaline Earth Metals and Group 7, Halogens
- Organic Functional Group Chemistry

Year 13:

- Thermodynamics and Equilibrium
- Acids and Bases
- Period 3 and Transition Metal Chemistry
- Functional Group Chemistry
- Organic Synthesis and Analysis

SKILLS REQUIRED

GCSE Grade 8 or above is required in Chemistry due to the rigours of this course. Separate rather than combined GCSE Chemistry is highly recommended as a precursor to studying at A Level. In exceptional cases, applicants with a Grade 7 may be considered on the understanding that the course can be challenging for such individuals. At least 20% of the marks in Chemistry assessments will require using mathematical skills. These skills will be applied in the context of the course and will be at least higher tier GCSE mathematics.

ASSESSMENT

All course content is examined at the end of the two-year course. Assessment objectives include knowledge and understanding, application and analysis and interpretation, evaluation and evidence of ideas.

Paper 1:
Written exam. Inorganic Chemistry.
Certain Physical Chemistry topics. Relevant practical skills 2 hours. 35% of final marks.
Paper 2:
Written exam. Organic Chemistry. Certain Physical Chemistry topics. Relevant practical skills. 2 hours. 35% of final marks.
Paper 3:
Written exam. Any content. Any practical skills. 2 hours. 30% of final marks.

Practical Skills Assessment
The assessment of practical skills is a compulsory requirement of the course of study for A Level qualifications in biology, chemistry and physics. Throughout the course, students undertake 12 practicals in which they will demonstrate their competency. Practical skills are internally assessed and moderated externally. A practical skills endorsement is reported alongside (but does not contribute to) the A Level grade.

ENRICHMENT

We offer the opportunity for students to take part in the Science Crest Awards, trips to London for lectures and universities, and competitions such as the Chemistry Olympiad.

FUTURE PATHWAYS

This course underpins a wide range of science-based degree courses and careers. Success with A Level Chemistry will prepare you for a future in chemistry, pharmacy, pharmacology, chemical engineering, biochemistry, biomedical sciences, medicine and dentistry.

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