Chemistry



What is the course about?

Chemistry A Level provides a real in-depth knowledge of this fascinating subject, preparing you for further education or giving you the credentials to enhance your job prospects. The course is underpinned by the practical skills we call 'How Science Works'. Chemists have greatly improved the quality of life for the majority of people by being real innovators, designing solutions to the problems that affect modern times. Whether you want a job in medicine or industry, chemistry is the solid platform upon which many careers are built. Chemistry provides an excellent broad range of skills including numeracy and problem solving, desirable in most career paths.

In Year 12 you will study:

There are two learning units in the first year.

- **Unit 1** covers foundation subjects like atomic structure, bonding, periodicity and equilibria and their relevant practical skills.
- **Unit 2** is the study of topics like kinetics, an introduction to organic chemistry and analytical techniques and relevant practical skills.

In Year 13 you will study:

- A similar format is followed in the second year. **Paper 1** Inorganic and physical chemistry (periodicity
- and transition metals).
- Paper 2 Organic and physical chemistry (aldehydes, carboxylic acids, polymers etc).
- Paper 3 Any content from Year 12 and Year 13 (including practical skills assessment).

How is the course assessed?

Year 12 has two end-of-year written exams: 1 hour 30 minutes each

- In Year 13 you will have three A Level assessments:
- Paper 1 120-minute 105 marks of short- and long answer questions.
- Paper 2 120-minute 105 marks of short- and long answer questions.
- Paper 3 120-minute 40 marks on practical techniques and data analysis, 20 marks testing from the whole specification (synoptic questions) and 30 marks for multiple-choice questions.



What skills will I need and develop in this course?

- This course will help you develop a number of skills:
- How to assemble data and assess it.
- How to investigate facts and use deduction.
- · How to express your point of view clearly.
- How to work as a team to achieve results.

Subject combination advice

Students who take chemistry often also study from a wide range of subjects including psychology, sociology, biology, physics, languages, and mathematics.

What can the course lead to in terms of higher education and future careers?

Chemistry is a great choice for people who want a career in health and clinical professions, such as medicine, nursing, biochemistry, dentistry or forensic science. It will also equip you for a career in industries such as petrochemicals or pharmaceuticals. It is also excellent preparation for a career in engineering.

What are the formal entry requirements?

Chemistry GCSE minimum Grade 6, combined science GCSE minimum Grade 7.

What activities enrich this subject?

Reading scientific journals such as *Nature* or *New Scientist*. Watching programmes of wider scientific interest. Keeping abreast of new scientific developments in the news. Attending seminars such as Chemistry in Action.