

## Chemistry

### Course Details

Chemistry is the central science and impacts on all facets of our lives.

An understanding of Chemistry is necessary to all other sciences from astronomy to zoology. All of the materials used by engineers and technologists are made by chemical reactions and we all experience chemical reactions continuously, whether it be breathing or baking a cake, driving a car or listening to a battery driven minidisk player.

Chemistry is concerned with all aspects of molecules, their physical and chemical properties, their composition and structure, their synthesis and use in the 21st century.

### Topics for Study

The topics covered at A Level are divided into the different branches of Chemistry; Physical Chemistry (which includes topics such as Atomic Structure, Bonding, Thermodynamics and Equilibria), Inorganic Chemistry (which includes topics such as Transition Metals and Periodicity) and Organic Chemistry (which includes topics such as Halogenoalkanes, Alcohols and Aromatic Chemistry).

### Practical Assessments

Practical assessments have been divided into those that can be assessed in written exams and those that can only be directly assessed whilst students are carrying out experiments.

A-level grades will be based only on marks from written exams.

A separate endorsement of practical skills will be taken alongside the A-level. This will be assessed by teachers and will be based on direct observation of students' competency in a range of skills that are not assessable in written exams

### Assessment

**Paper 1:** Physical Chemistry topics, such as; Atomic Structure and Bonding are covered in this assessment along with Inorganic Chemistry (Periodicity, Group 2 and Group 7).

Relevant practical skills will also be assessed in Paper 1.

2 hours written examination comprising 105 marks (short and long answer questions) – 35% of A-Level

**Paper 2:** Physical Chemistry topics, such as; Energetics and Kinetics are covered in this assessment along with Organic Chemistry (Alkanes, Alkenes and Organic Analysis).

Relevant practical skills will also be assessed in Paper 2.

2 hours written examination comprising 105 marks (short and long answer questions) - 35% of A-Level.

**Paper 3:** Any content and any practical skills from the course can be examined on in this paper.

2 hours written examination comprising 90 marks (40 marks of questions on practical techniques and data analysis, 20 marks of questions testing across the specification and 30 marks of multiple choice questions) – 30% of A-Level.



## Background Requirements

It is anticipated that students intending to study A Level Chemistry will have followed the Combined Science or Triple Science Award at GCSE and have achieved a minimum of a grade 6. A sound knowledge of Mathematics is also necessary and a grade 6, at GCSE should be achieved prior to studying A Level Chemistry.

## Future Career Prospects

A Chemistry A Level gives you an excellent qualification for a wide career choice within science, industry or commerce as well as being necessary to study medicine.

A Chemistry student is numerate, analytical and practical with good communication skills.

Jobs are to be found in small, medium and multinational chemical companies as well as in business, banking, accountancy, marketing, advertising, teaching and the IT sector.

Of course, you may decide to continue studying Chemistry.

Some graduates opt to do research for a further period of one to three years for a Masters or Doctorate qualification.



## For More Information

Students interested in following the A Level Chemistry course, should contact the Head of Department or subject staff.

### Subject Staff

Miss E Briggs BSc (Hons), P.G.C.E.

Miss L Forster BSc (Hons), MSc, P.G.C.E.

### Head of Department

Miss L Forster BSc (Hons), MSc, P.G.C.E

### Syllabus

Chemistry

*Specification Code: 7405*

### Exam Board

AQA

### Website

Further details of this course can be found on the exam boards' website.

[www.aqa.org.uk](http://www.aqa.org.uk)

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