

Chemistry

A level – AQA

Course Leader: Mr Wood

What's it all about?

Chemistry is the study of substances, what they are made of, how they interact and what role they play in living things. It's the study of all materials and is vital to every aspect of our lives. Chemists work to solve the problems of the world about us, providing solutions for disease, hunger and environmental problems. A chemist may work to discover a new lifesaving drug or to develop smarter and more durable materials to meet our engineering needs.

What are the entry requirements?

Combined Science trilogy grades 9-9 to 6-6 or GCSE Chemistry grades 9-6. Including GCSE Maths grade 9-5, but we will consider a grade 9-4 in GCSE Maths.

What will I learn on this course?

In the first year you will cover foundation subjects such as atomic structure, bonding and basic organic chemistry. In the second year you will move onto thermodynamics, periodicity, redox and transition element chemistry. Chemistry is a practical subject – you will learn fundamental laboratory techniques such as titration, recrystallisation and analysis and identification of functional groups. Twelve of the practical assignments you complete will be assessed. You will receive a practical endorsement certificate at the end of the course. However, examination questions will focus on your understanding of practical techniques in addition to knowledge and understanding of topics. We hope our students will become “chemically numerate” as they learn how to handle such concepts as empirical formulae, Avogadro's constant and the Ideal Gas Equation.

How will I be assessed?

All assessment takes place at the end of this two-year course (summer of Year 13).

Paper 1	Paper 2	Paper 3
Inorganic chemistry, with relevant physical chemistry. Relevant practical skills are assessed in this examination paper. 2 hour written examination. 105 marks – mixture of short and long answer questions. 35% of A-Level.	Organic chemistry, with relevant physical chemistry. Relevant practical skills are assessed in this examination paper. 2 hour written examination. 105 marks – mixture of short and long answer questions. 35% of A-Level.	All practical skills are assessed in this examination paper. All content from the A-Level can be assessed in this examination paper (synoptic). 2 hour written examination. 90 marks <ul style="list-style-type: none">- 40 marks on practical techniques and data analysis- 20 marks on topics across the specification- 30 marks multiple choice questions on topics across the specification

What do your current students say?

“Chemistry is challenging but satisfying when you get it right. I enjoy the challenge.” - Year 13 2018

“An A-Level in Chemistry is essential for me to study Biochemistry at university next year.”- Year 13 2018

Is there anything else I need to know?

You will be provided with a course text book and given the opportunity to purchase recommended revision guides. Our students also purchase their own laboratory coats at the start of the course.

We pride ourselves on a strong, open and honest working relationship between teachers and students. Our students are kept informed of their progress via short topic tests and verbal feedback. We give students ample opportunity to practise their examination technique but also encourage interactive ways of learning and assessment.

An A-Level in chemistry is vital for those students who wish to study chemistry or chemical engineering at degree level and also essential for aspiring doctors, dentists and vets. Students traditionally combine chemistry with biology, physics and mathematics. However, the subject sits well with any combination of post-16 courses. Students that are considering futures in a whole spectrum of careers, from astronomy to zoology, should therefore consider chemistry. Some advanced level subjects are more frequently required for entry to degree courses than others. Russell Group universities call these subjects ‘facilitating’ subjects because choosing them at advanced level leaves open a wide range of options for university study; chemistry is on this list of facilitating subjects. Chemists are seen by universities and employers as good “all-rounders” as a high degree of numeracy, literacy and problem solving skills are required for candidates to be successful in A-Level chemistry.

A-Level chemistry is a very demanding course and students should ensure they are prepared to work consistently to the best of their ability in order to meet these demands.

Who can I contact for further information?

Subject leader for chemistry, jwood@kingcharles1.worcs.sch.uk