



Chemistry

Everything is Chemistry, from the air that surrounds us to the organisms that breathe it, from industry to agriculture, from art to medicine. Defined as the study of matter and the changes this matter undergoes, chemistry underpins every other science and life itself.

The course

Following the OCR A specification, A level Chemistry will give pupils an exciting insight into the contemporary world of chemistry. The course covers the key concepts of chemistry and practical skills are integrated throughout. Although the work requires a mathematical and logical approach, the study of A level Mathematics is not essential.

We recognise that pupils will have studied a variety of different GCSE courses and so much of the first term in Lower Sixth is devoted to ensuring that the foundations of the subject are sound and secure.

Studying Chemistry develops important skills including logical thinking, analysis of evidence, making connections, data processing and manipulative skills in practical work.

Pupils will complete six hours' worth of examinations at the end of the Upper Sixth: two papers for 2 hours 15 minutes and one paper for 1 hour 30 minutes.

Where can the course take you?

Chemistry is a highly respected A level and is a choice suited to many degree and career options. It is a compulsory option for anyone wishing to pursue medicine, veterinary science and dentistry as well as chemistry-based degree courses in pharmacy, pharmacology and biochemistry.

Chemistry is also a subject option for law applicants because the skills developed show they can cope with difficult concepts. Chemistry also complements arts subjects.

The subject opens doors for a range of career opportunities in medicine, healthcare, environmental science, chemical manufacturing, research, forensics, engineering and pharmaceutical industries.

The problem skills acquired are useful for other sectors such as finance and law.

Further information about the course can be found at:

<http://www.ocr.org.uk/qualifications/as-a-level-gce-chemistry-a-h032-h432-from-2015/>

<https://www.ocr.org.uk/Images/180070-a-level-chemistry-a-fact-sheet.pdf>



L6 Chemistry

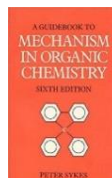
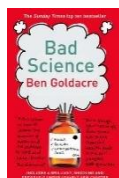
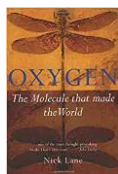
<p>Module 2 – Foundations in Chemistry</p> <ul style="list-style-type: none">• Atomic Structure and Isotopes• Compounds, formulae and equations• Amount of Substance• Acids• Redox• Electron Structure• Bonding and Structure <p>Module 3 – Periodic Table and Energy</p> <ul style="list-style-type: none">• Periodicity• Group 2• The halogens• Enthalpy changes• Chemical Equilibrium• Reaction Rates	<p>Module 4 – Core Organic Chemistry</p> <ul style="list-style-type: none">• Basic Concepts of Organic Chemistry• Alkanes• Alkenes• Alcohols• Haloalkanes• Analytical Techniques (IR and Mass Spec)• Organic Synthesis <p>Module 5 – Physical Chemistry</p> <ul style="list-style-type: none">• Kinetics <p>Module 1 – Development of practical skills in Chemistry</p> <p>Experiments undertaken include a variety of qualitative and quantitative activities. We carry out a significant number of experiments above and beyond the core of 12 experiments required for the practical endorsement element. These continue in U6.</p>
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U6 Chemistry

<p>Module 5 – Physical Chemistry and Transition Elements</p> <ul style="list-style-type: none">• Rates, equilibrium and pH• Energy (Lattice Enthalpy, Enthalpy and Entropy)• Redox and Electrode Potentials• Transition Elements• Qualitative Analysis	<p>Module 6 – Organic Chemistry and Analysis</p> <p>Aromatic Compounds, Carbonyls and Acids</p> <ul style="list-style-type: none">• Nitrogen Compounds, Polymers and Synthesis• Analysis (Chromatography, Qualitative Analysis, NMR Spectroscopy, Combined Techniques)
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Additional Reading

All pupils are encouraged to read from the textbook and beyond the specification. There are many resources available in the school library as well as our Horsefair House Science Library. Some of these are also available to our pupils online via subscription, as is the entire series of OUP books entitled 'A Very Short Introduction to ...'



Additional Opportunities

