

CHEMISTRY – A Level



“The country which is in advance of the rest of the world in chemistry will also be foremost in wealth and in general prosperity.” *William Ramsay*

Overview

You will study a variety of topics which deal with the substances that make up our universe. Learn about the way that elements can be combined in a seemingly limitless number of ways to give countless millions of different materials. Study how atoms link together to form larger structures such as molecules and the mechanisms by which molecules can be reshaped and adapted. This subject occupies a central position between physics, mathematics and engineering on the one hand, and biology, earth science and medicine on the other.

Year 12

Module 1: Practical skills are developed through a range of guided practical activities.

Module 2: Develop your understanding of atomic structure, types of bonding and quantitative chemistry.

Module 3: Further study of Group 7 halogens, comparing their reactions with those of Group 2.

Module 4: Study the varied chemistry of carbon and discover ideas of modern analytical techniques.

Year 13

Module 5: Deal with the practical realities of the chemical industry in a quantitative way. It provides in-depth study of transition metals and their role.

Module 6: More reactions that can be done by carbon, develop problem solving skills and study advanced analysis in settings such as drug testing in sport.

Assessment method

At the end of Year 12 you will sit end of year exams, these will not count towards your final results.

There are three final written examinations at A level, two of which are 2 hours 15 minutes long and the third is 1 hour 30 minutes long. Practical skills will be tested in the exams and you will be awarded a pass on your certificate if you successfully complete the practicals and laboratory books.

Additional information

Additional assessed homework is set weekly per teacher and consists of a range of reinforcement exercises and past examination questions. In addition to homework you will be expected to carry out a minimum of 5 hours independent study per fortnight in each subject studied during which time you are expected to write up lesson notes and complete end of chapter questions. A catch-up session is also held weekly.

All specialist textbooks, scientific papers and publications will be made available. You will need to have a scientific calculator and an internet enabled device such as a laptop or notebook.

We recommend the following books to help support studies but these are not essential - revision guide CGP 'A Level Chemistry' and 'Maths Skills for A Level Chemistry' from Nelson Thornes.

Entry requirements

Five GCSE Grade 5 to 9 including English and Maths. Students require a GCSE Grade 6 in Chemistry or Additional Science together with Grade 6 in Maths and English.

For more information contact

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Futures

Pharmacy, food science, chemical engineering, metallurgy, environmental protection, medicine and other healthcare courses, forensic science, agriculture, business, industrial management and education.

Exam board

OCR
Oxford Cambridge and RSA