

SUBJECT GUIDE:

Exam Board: OCR
1 year - A Level Intensive

WHY CHOOSE CHEMISTRY:

Chemistry is the most fundamental of all the sciences, and is the basis of many scientific and technological ideas. The subject looks at how substances react and the principles and laws that predict their behaviour. This ranges from the large scale of the industrial processes to the very small scale of atoms and subatomic particles. If you wish to embark upon a career in Medicine, Dentistry, Pharmacy etc, Chemistry is an essential subject to study at A-level.

WHAT WE STUDY: A LEVEL

Module 1 - H032 - Development of practical skills in Chemistry.

This module involves laboratory based experimental skills in Chemistry. These hands-on skills are divided into 12 categories and form the practical endorsement that every must do.

Module 2 - H032 - Foundation in Chemistry.

This module involves the study of atomic structure, amount of substance, acids and redox, bonding, shapes and intermolecular forces.

Module 3 - H032 - Periodic table and energy

This module involves the study of periodicity, reactivity trends, enthalpy, reaction rates and equilibrium.

Module 4 - H032 Core organic chemistry and analysis

This unit involves the study of basic concepts of organic chemistry, alkanes, alkenes, alcohols and haloalkanes. You will also study about organic synthesis and spectroscopy in this module.

Module 5 - H432 - Physical chemistry and transition elements

This Module involves the study of rates of reactions, equilibrium acids, bases pH and buffer solution, enthalpy and entropy redox and Transitional elements.

Module 6 - H432 - Organic chemistry and analysis

This Module extends your understanding of organic chemistry further. In this module you study aromatic chemistry as well as carbonyl, carboxylic acids, amines, amino acids, organic synthesis and chromatography as well as spectroscopy.

HOW YOU WILL BE ASSESSED:

Unit 1 - Periodic table, elements and physical Chemistry - Written examination paper of 2 hours 15 minutes (37 % of total A level). Assesses content from modules 1,2,3 and 5 described above.

Unit 2 - Synthesis and analytical techniques -
Written examination paper of 2 hours 15 minutes (37 % of total A level). Assesses content from modules 1,2,4 and 6 described above.

Unit 3 - Unified chemistry - Assesses content from all modules (1 to 6) - Written examination paper of 1 hour 30 minutes (26 % of total A level).

Further information can be obtained from ocr.org.uk/alevelchemistrya

COURSE READING LIST:

1. A Level Chemistry for OCR - Year 1 and AS

by Rob Ritchie and Dave Gent
Publisher: Oxford University Press
ISBN 978-0-19-835196-2

2. A Level Chemistry for OCR - Year 2

by Rob Ritchie and Dave Gent
Publisher: Oxford University Press
ISBN 978-0-19-835765-0

For further reading list see Chemistry Teachers.

PROGRESS PATHS:

Chemistry opens doors to a wide variety of careers. The career opportunities available are as vast as the subject itself due, in part, to the transferable skills gained whilst studying physics. It is these transferable skills that make the difference between an employee who is merely satisfactory and one who will significantly improve the performance of the organisation concerned. Employers see a Chemistry qualification as an indication of someone who will immediately be an asset to the organisation. This is because:

Chemistry requires a logical and numerate mind. The ability to solve problems, gained through studying chemistry, is of paramount importance to the future of technology. Communication skills are developed through report-writing and presentations. Computing and practical skills are second nature to those trained in chemistry. Teamwork and flexibility are essential in lab work and projects.

Your future matters. So, if you have an enquiring mind, enjoy a challenge and like solving problems, give yourself the best chance by studying chemistry- the subject of the future.

THE CHEMISTRY DEPARTMENT:

Mr Kenneth Motteram, BSc, Cert.G.I.Biol & QTS

Mr Motteram joined Regent for September 2015. He has taught at a number of schools across London teaching both Science and Chemistry. His most recent post was at a grammar school in Edgware. He is also an examiner for OCR.

Dr. Dilip Joshi, BSc, MSc, PhD & QTS

Dr. Joshi brings considerable expertise to the Regent team. Having most recently held the post of Chemistry teacher at high-achieving North London Collegiate School for eight years, preceded by five years as Head of Science at Stanmore College, he has also published a number of research papers. In addition, he gives instruction and guidance to all students in implementing their UCAS applications.