



SUBJECT: Chemistry A Level

HEAD OF DEPARTMENT:

Mrs K Ardley

EXAM BOARD AND SYLLABUS NUMBER:

OCR A level Chemistry H432 / QAN: 60152552

SYNOPSIS OF CONTENT:

Module 1: Development of practical skills - this module underpins the whole of the specification, and covers the practical skills that students should develop throughout the course.

Module 2: Foundations in Chemistry covering concepts required throughout the remaining modules including atoms, compounds and molecules; equations and amount of substance.

Module 3: The periodic table and periodicity, group 2 and the halogens, qualitative analysis, enthalpy changes, reaction rates and equilibrium (qualitative).

Module 4: Core organic Chemistry, basic concepts, hydrocarbons, alcohols and haloalkanes, organic synthesis, analytical techniques (IR, MS).

Module 5: Reaction rates and equilibrium (quantitative), pH and buffers, enthalpy, entropy and free energy, redox and electrode potentials, transition elements.

Module 6: Aromatic compounds, carbonyl compounds, carboxylic acids and esters, nitrogen compounds, polymers, organic synthesis, chromatography and spectroscopy (NMR).

WHY STUDY THIS SUBJECT?

A Level Chemistry will give you an exciting insight into the contemporary world of chemistry. It covers the key concepts of chemistry and practical skills are integrated throughout the course. You will learn about chemistry in a range of different contexts and the impact it has on industry and many aspects of everyday life. You will learn to investigate and solve problems in a range of contexts. You will develop key transferable skills including investigating, problem solving, research, decision making, mathematical skills and analytical skills.

SELF STUDY ADVICE / USEFUL WEBSITES:

<http://www.chemguide.co.uk/> <http://www.rsc.org/learn-chemistry/> www.knockhardy.org.uk/sci.htm

www.bozemanscience.com

<https://www.youtube.com/playlist?list=PL8dPuuaLjXtPHzzYuWy6fYEaX9mQQ8oGr>

HOW IS IT ASSESSED?

Paper 1 Elements and Physical Chemistry 2 hrs 15 mins. Questions on modules 1, 2, 3 and 5. Paper 2. Synthesis and analytical techniques 2 hrs 15 mins. Questions on modules 1, 2, 4 and 6. Paper 3. Unified Chemistry. 1 hr 30 mins. Structured questions and extended response questions on all modules. Practical skills: non-exam practical endorsement reported separately pass/fail. 12 key practical assessments carried out across the course and examined on the written papers.

ADDITIONAL INFORMATION / CAREER OPPORTUNITIES

Chemistry opens doors to a wide range of careers; great opportunities exist inside and outside the lab. As well as practical knowledge of the subject, chemistry students develop many other skills prized by employers such as problem solving, numeracy, communication, creativity and data analysis. <http://www.rsc.org/careers/future/your-future-chemistry>

SPECIFIC MATRICULATION REQUIREMENTS

Grade 6 in GCSE Chemistry or grade 66 in GCSE Combined Science: Trilogy, with Grade 6 in GCSE mathematics