

Sixth Form

GCE A Level Chemistry

Duration:

Two Years for Full A Level

The A level is fully linear so assessment of students' knowledge and understanding of the whole course takes place at the end of two years of study. There are 3 examinations; One paper covers modules 1, 2, 3 & 5 and the other paper covers modules 1, 2, 4 & 6. There is also an additional shorter exam that will include multiple choice questions that covers all modules.

There is no coursework. It has been replaced with the new 'Practical Endorsement'. This means that there are far more opportunities for students to complete practical work as well as the associated calculations, research and questions to go with them. These assessments will take place over the entire two years and will also help prepare students for practical questions within all the examinations. (module 1)

Specification:

OCR Specification - Chemistry A.

Further details are available from their website

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

Entry Requirements/Student Suitability:

Students are required to achieve:

- Grade 6 or above in at least 2 of the Separate Science GCSEs
- OR
- Grade 6 or above in both Core **and** Additional Science GCSEs.

In addition to these Science GCSEs you also need

- Grade 6 or above in a Maths GCSE

Course Content:

- Module 1 – Development of practical skills in chemistry • Practical skills assessed in a written examination • Practical skills assessed in the practical endorsement
- Module 2 – Foundations in chemistry • Atoms, compounds, molecules and equations • Amount of substance • Acid-base and redox reactions • Electrons, bonding and structure
- Module 3 – Periodic table and energy • 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 and MS)

- Module 5 – Physical chemistry and transition elements • Reaction rates and equilibrium (quantitative) • pH and buffers • Enthalpy, entropy and free energy • Redox and electrode potentials • Transition elements
- Module 6 – Organic chemistry and analysis • Aromatic compounds • Carbonyl compounds • Carboxylic acids and esters • Nitrogen compounds • Polymers • Organic synthesis • Chromatography and spectroscopy (NMR)

For further information and exemplar question papers see the exam board website.

Methods of Study:

Individual and group based problem solving activities. Verbal and written presentations and posters, etc. Practical activities e.g. mini investigations. Using websites, television programmes and scientific journals to keep up to date with current research. Practicing exam questions.

Independent Study Time:

Students will be expected to commit to one hours independent study for every hour of contact time. This will be in the form of set homework during study time and independent research/exam papers during revision time. There will also be an expectation that students complete some D.I.R.T (Dedicated improvement and reflection time) work outside of lessons.

Progression and the Future:

This course is perfectly suited to the following career pathways:

Biochemist, Biologist, Chemist, Doctor, Dietician, Geologist, Dentist, Optometrist, Forensic Scientist, Microbiologist, Veterinary Surgeon, Nutritional Therapist, Science Teacher, Environmental Scientist.

However, it is also worth noting that Chemistry is a facilitating subject. This means that many universities and employers commonly prefer applicants with qualifications in these subjects. Studying chemistry will equip you with the skills to prepare you for a wide range of university courses/jobs.

Subject Contact:

Miss Sarah Davis

sdavis@wadebridge.cornwall.sch.uk

How to Apply:

The Application Process begins in November of each year. Please contact Debbie Chick, Sixth Form Support, for further information or to request an application form.

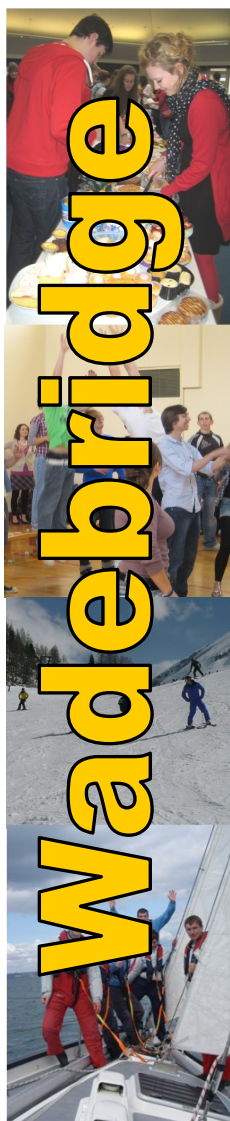
sixthform@wadebridge.cornwall.sch.uk

For further information and to apply for this course:

Please contact Debbie Chick, Sixth Form Administrator

sixthform@wadebridge.cornwall.sch.uk

Telephone 01208 893905



Wadebridge