



A Level

Specification: OCR Chemistry H432

SCIENCE: CHEMISTRY

Contact:

JMS: Mr B Gilkes

FZ: Mr W Browne

What will I study?

The Physical Chemistry topics are Atomic structure, Amount of substance, Bonding, Energetics, Kinetics, Chemical equilibria and Le Chatelier's principle, and Oxidation, reduction and redox equations.

The areas of inorganic chemistry are Periodicity, Group 2, the alkaline earth metals and Group 7, the halogens. As an introduction to organic chemistry, students will study Alkanes, Halogenoalkanes, Alkenes, Alcohols and Organic analysis. Reaction rates and equilibrium, pH and buffers, Enthalpy, entropy and free energy, Redox and electrode potentials and Transition elements

Further organic chemistry will include Aromatic compounds, Carbonyl compounds, Carboxylic acids and esters, Nitrogen compounds, Polymers, Organic synthesis, Chromatography and spectroscopy.

How will I be assessed?

Assessment is based on three papers, two longer papers covering half the content each. These are made up of a mixture of short answers, longer structured answers and multiple choice questions. There is a slightly shorter, synoptic paper covering everything requiring longer answers. Practical competence is assessed via 12 practical tasks and reported separately as pass or fail.

How will I learn?

Students will undertake practical work to illustrate the underlying ideas throughout the course. There will be short questions set to check understanding along the way and longer questions at the end of each section.

What skills will I need?

You will need to enjoy learning new ideas and be prepared to persevere if you find something difficult. You should be well organised and able to work to a tight time schedule in experiments. You should not be afraid of basic calculations. You do not need to have studied separate sciences at GCSE.

Careers & Progression

There are many careers in Chemistry open to you especially if you study the subject at university. Research and engineering jobs are interesting and rewarding. It is also a useful choice if you want to study sciences at university.

Students will be able to participate the Cambridge Chemistry Challenge for lower sixth form and the Royal Society of Chemistry's Chemistry Olympiad. Both of which are international Chemistry competitions. These competitions aim to stretch and challenge students interested in chemistry, and will provide an excellent experience for anyone considering taking their studies further.

Set by an experienced team of teachers and university chemists, it is designed to be accessible to A level students but will take them significantly beyond the syllabus and encourage them to think about science in the way they would at university.