



Chemistry

Examination Board: AQA

Chemistry is taught as a mixture of practical and theory lessons combined to give a sound understanding of the principles and concepts involved. The topics are divided up into three main areas: Organic, Inorganic and Physical Chemistry.

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

A-level only: Thermodynamics, Rate equations Equilibrium constant K_p for homogeneous systems, Acids and bases.

Inorganic Chemistry: Periodicity, Group 2, the alkaline earth metals, Group 7, the halogens. Properties of Period 3 elements and their oxides, Transition metals, Reactions of ions in solution.

Organic Chemistry: Introduction to organic chemistry, Alkanes, Haloalkanes, Alkenes, Alcohols, Organic analysis. Optical isomerism, Aldehydes and ketones, Carboxylic acids and derivatives, Aromatic chemistry, Amines, Polymers, Amino acids, proteins and DNA, Organic synthesis, NMR spectroscopy, Chromatography.

Year 1 Assessments

Paper 1: 90 minutes, 80 marks (65 marks of short and long answers, 15 marks of multiple choice), 50% of the AS Physical Chemistry, Inorganic Chemistry plus practical skills.

Paper 2: 90 minutes, 80 marks (65 marks of short and long answers, 15 marks of multiple choice), 50% of the AS Physical Chemistry, Organic Chemistry and practical skills.

Year 2 Assessments

Paper 1: 2 hours, 105 marks of short and long answer questions, 35% of A-level Physical Chemistry, Inorganic Chemistry and practical skills.

Paper 2: 2 hours, 105 marks of short and long answer questions, 35% of A-level Physical Chemistry, Organic Chemistry and Practical skills.

Paper 3: 2 hours, 90 marks (40 marks on practical skills and data analysis, 20 marks of questions on testing across the specification and 30 marks of multiple choice questions). Any content and practical skills.

A-level grades will be based only on marks from written examinations. A separate endorsement of practical skills will be taken alongside the A-level. This will be assessed by teachers and will be based on direct observation of students' competency in a range of skills assessed in 12 required practicals.

Students will have the opportunity to attend a variety of academic lectures and trips to local universities where access to material that will enhance the course will be available.

Entry Requirements:

Candidates wishing to study Chemistry in Year 12 must have Grade 7 GCSEs in both Chemistry and Mathematics.