

Chemistry A Level



Course Features:

- Use theories, models and ideas to develop and modify scientific explanations
- Use appropriate methodology, including ICT, to answer scientific questions and solve scientific problems
- Carry out experimental and investigative activities, including appropriate risk management, in a range of contexts

Year 12

Physical chemistry

Including atomic structure, amount of substance, bonding, energetics, kinetics, chemical equilibria and Le Chatelier's principle.

Inorganic chemistry

Including periodicity, Group 2 the Alkaline earth metals, Group 7(17) the halogens.

Organic chemistry

Including introduction to organic chemistry, alkanes, halogenoalkanes, alkenes, alcohols, organic analysis.

Year 13

Physical chemistry

Including thermodynamics, rate equations, equilibrium constant (K_c) for homogeneous systems, electrode potentials and electrochemical cells.

Inorganic chemistry

Including properties of Period 3 elements and their oxides, transition metal reactions of ions in aqueous solution.

Organic chemistry

Including optical isomerism, aldehydes and ketones, carboxylic acids and derivatives, aromatic chemistry, amines, polymers, amino acids, proteins and DNA, organic synthesis, NMR spectroscopy, chromatography.

Methods of Assessment:

Three 2 hour exams in the June of the second year of the course

Paper 1 – Physical and Inorganic Chemistry topics

Paper 2 – Physical and Organic Chemistry topics

Paper 3 – Synoptic paper of all content