



Examination Board: CCEA

## Overview

Chemistry at A level will follow the CCEA specification. Further information on Chemistry at A level can be viewed on the CCEA website: [www.ccea.org.uk](http://www.ccea.org.uk).

Chemistry is the study of the elements and the compounds they form. The spiritual, moral, ethical, social and cultural issues which arise from this study will provide the opportunity for students to discuss and analyse the contribution of Chemistry to society. This will involve a critical appraisal of the use of finite resources, the way in which they are used, and the development of global responsibility for ethical use of advances in Chemistry. The Key Skill of Communication can be used to explore these issues.

## AS LEVEL

Unit	Content	Assessment
<b>AS 1: Basic Concepts in Physical and Inorganic Chemistry</b>	Formulae, equations and amounts of a substance; Atomic structure; Bonding and structure; Shapes of molecules and ions; Intermolecular forces; Redox ; The Periodic Table; Group VII (fluoride, chlorine, bromine and iodine); Titrations	35% of AS 17.5% of A Level
<b>AS 2: Further Physical and Inorganic Chemistry and Introduction to Organic Chemistry</b>	Formulae and amounts of a substance; Nomenclature and isomerism in organic compounds; Hydrocarbons – alkanes; Hydrocarbons – alkenes; Halogenoalkanes; Alcohols; Infra-red spectroscopy; Energetics; Equilibrium; Kinetics; Group II elements and their compounds (Mg to Ba); Qualitative analysis	35% of AS 17.5% of A Level
<b>AS 3: Internal Assessment</b>	In this section you will be carrying out practicals, recording results and analysing your findings.	30% of AS 15% of A Level



## A LEVEL

Unit	Content	Assessment
<b>A2 1: Periodic Trends and Further Organic, Physical and Inorganic Chemistry</b>	Lattice enthalpy; Enthalpy, entropy and free energy; Kinetics; Equilibrium (including principles from Unit 2); Acid-base equilibria; Isomerism (incorporates examples from Unit 2); Aldehydes and ketones; Carboxylic acids ; Esters, fats and oils; Periodic trends; Environmental chemistry (simple treatment only)	20% of A Level
<b>A2 2: Analytical, Transition Metals, Electrochemistry and Further Organic Chemistry</b>	Mass spectrometry; Nuclear magnetic resonance spectroscopy; Volumetric analysis; Colorimetry; Chromatography; General properties; Complexes; Oxidation states; Catalytic behaviour; Applications of transition metal complexes; Electrode potentials; Arenes; Amines; Amides; Amino acids; Polymer chemistry	20% of A Level
<b>AS 6: Internal Assessment</b>	This involves practical work at a more advanced level than last year	10% of A Level

## Careers

Agricultural Scientist, Chemist, Biochemist, Environmental Health Officer, Scenes of Crimes Officer, Biotechnologist, Pharmacist, Pharmacologist, Pharmacy Technician, Forensic Scientist, Industrial Chemist, Materials Scientist, Oceanographer, Dentist, Medicine, Nature Conservationist, Animal Technician, Metallurgist, Scientific Archaeologist, and many more.