

A Level Chemistry

What is Chemistry?

Chemistry is the study of matter and the interactions between them.

Why study Chemistry? Chemistry is everywhere! The food you eat, clothes, water you drink, medicines, air, cleaners

What makes a successful Chemistry student? A successful chemistry student is mathematically minded, methodical, has good practical skills, confident at balancing equations, learns definitions, rereads around a topic and relates concepts to other contexts.

To study this course, what qualifications will I need and in which subjects? Students considering Chemistry should have at least grade 6 in GCSE Core Science, Additional Science or grade 6 in Chemistry and a grade 5 in GCSE Maths (preferably from the Higher Tier).

What is the structure of the course?

Year 12 Units	Year 13 Units
Unit 1 – Physical Chemistry This unit provides the core principles that underpin physical chemistry, such as: atoms, compounds, molecules and equations; amount of substance; acid-base and redox reactions; electrons, bonding and structure.	Unit 4 – Physical Chemistry This unit provides a deeper knowledge and understanding of physical chemistry, to include reaction rates and equilibria; pH and buffers; enthalpy, entropy and free energy; and transition elements.
Unit 2 – Inorganic Chemistry This unit provides the basis behind inorganic chemistry, such as: the Periodic Table and periodicity; group 2 and group 7; qualitative analysis; entropy changes; rates and equilibria.	Unit 5 – Inorganic Chemistry This unit provides a deeper knowledge and understanding of inorganic chemistry, to include properties of Period 3 elements and their oxides, transition metals and the reactions of ions in aqueous solution.
Unit 3 – Core Organic Chemistry This unit provides the basis of organic chemistry, such as: basic concepts; hydrocarbons; alcohols and haloalkanes; organic synthesis and analytical techniques.	Unit 6 – Organic Chemistry and Analysis This unit provides a more in-depth understanding of organic analysis and synthetic routes: aromatic compounds; carbonyl compounds; carboxylic acids and esters; nitrogen compounds; polymers; organic synthesis; chromatography and NMR spectroscopy.
Assessment – Paper 1: Relevant Physical and inorganic chemistry along with relevant practical skills. Paper 2: Relevant Physical and organic chemistry along with relevant practical skills. Both papers are 2 hours, 105 marks and 35% of the A-level consisting of short and long answer questions. Paper 3: Any content and any practical skills Paper is 2 hours, 90 marks and 30% of the A-level consisting of 40 marks of questions on practical techniques and data analysis, 20 marks of questions testing across the specification and 30 marks of multiple choice questions.	

What opportunities are there for me to study beyond the classroom? Students studying Chemistry have access to a range of additional resources from exam questions on Class Charts to Ebooks. Visits are also made to the UEA and working laboratories, which allows students to observe and complete practical applications of chemistry discussed within the classroom.

What kind of career does this subject/qualification prepare me for? Chemistry is a great choice of subject for people who want a career in health and clinical professions, such as medicine, nursing, biochemistry, dentistry or forensic science. It will also equip you for a career in industry, for example in the petrochemical or pharmaceutical industries.