



Chemistry

Exam Board: AQA

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Why study Chemistry?

Chemistry is everywhere in the world around you. It is in the food we eat, the clothes we wear, the medicines we use and the air we breathe. The A level Chemistry course enables students to see the world in a different way. It is not just about atoms and molecules and things going 'BOOM!', but also about debating current global issues, developing problem solving skills and understanding how the scientific community works. The study of Chemistry at A level is an excellent foundation for any science course at university.

Course details

Year 12	Year 13
Physical chemistry	
Atomic structure	Thermodynamics
Amount of substances	Kinetics
Bonding	Equilibrium constant K _p
Energetics	Electrode potentials and electrochemical cells
Kinetics	Acids bases and buffers
Equilibria	
Inorganic chemistry	
Periodicity	Periodicity
Group 2, the Alkaline Earth Metals	The transition metals
Group 7 (17), the Halogens	Reactions of inorganic compounds in aqueous solutions
Organic chemistry	
Introduction to organic chemistry	Nomenclature and isomerism
Alkanes	Compounds containing the carbonyl group
Halogenoalkanes	Aromatic chemistry
Alkenes	Amines
Alcohols	Polymerisation
Organic analysis	Amino acids, proteins and DNA
	Organic synthesis and analysis
	Structure determination
	Chromatography

Assessments

There are also 12 required practicals that are assessed throughout the 2 year course, which assess your ability to use apparatus and techniques as well as presenting and evaluating data. Overall at least 15% of you're A-level Chemistry course will require the assessment of practical skills.

Paper 1	Paper 2	Paper 3
What's assessed <ul style="list-style-type: none"> • Relevant Physics chemistry topics • Inorganic chemistry • Relevant practical skills 	What's assessed <ul style="list-style-type: none"> • Relevant Physics chemistry topics • Organic chemistry • Relevant practical skills 	What's assessed <ul style="list-style-type: none"> • Any content • Any practical skills
How it's assessed <ul style="list-style-type: none"> • Written exam: 2 hours • 105 marks • 35% of A-Level 	How it's assessed <ul style="list-style-type: none"> • Written exam: 2 hours • 105 marks • 35% of A-Level 	How it's assessed <ul style="list-style-type: none"> • Written exam: 2 hours • 90 marks • 30% of A-Level
Questions 105 marks of short and long answer questions	Questions 105 marks of short and long answer questions	Questions 40 marks of questions on practical techniques and data analysis 20 marks of questions testing across the specification 30 marks of multiple choice questions

How is the course taught and assessed?

The AQA specification has been tailored to follow on from GCSE, and will develop your knowledge and understanding of the subject. The concepts of How Science Works, introduced at GCSE, are further developed. Practical work is integral to the teaching of theory. The new linear course in the Chemistry A specification is divided into six teaching modules with each module divided into key topics. The controlled assessment (practical) unit has been removed and instead 12 practical assignments will be completed over the two years of study and these will be examined in the three written papers. You will be encouraged to read widely in order to broaden your grasp of chemistry and to appreciate the sociological, economic and environmental implications of advances in the subject. The course involves a great deal of practical work so it is important that you enjoy this aspect of the study of the subject.

Entry Requirements

GCSE Triple Science (or Science Trilogy Higher) and Mathematics at grade 6 or above. (Chemistry at this level does involve mathematics so you should be prepared to develop your mathematics skills throughout the course).

Career routes and popular combinations

The subject leads to a host of career opportunities such as agricultural chemistry, chemical engineering, cosmetic science, dentistry, fuel technology, medicine, nuclear engineering, pharmacy, plastics technology, photography and veterinary medicine.