HIGHAM LANE
SIXTH FORM

Chemistry

FAQs

What are the entry requirements?

You must have a grade 6 or above in Chemistry or grades 6-6 in Combined Science and a grade 6 in Mathematics due to the mathematical demands of Physical Chemistry.

‘What is the world made of?’ If you want to search for the answer to this big question then A-Level Chemistry is for you. From understanding how pharmaceuticals interact with our bodies, how we affect the environment and how modern materials are made. In this course you will develop essential knowledge and understanding of fundamental chemical concepts, as well as a variety of areas of chemistry, and you will get to grips with how these relate to each other.

Exam Board: AQA (7405)

Assessment:

A-level
Paper 1: Physical Chemistry, Inorganic Chemistry and relevant practical skills
Paper 2: Physical Chemistry, Organic Chemistry and relevant practical skills
Paper 3: Any content and practical skills
All papers last 3 hours

Course details:

Physical Chemistry

Atomic structure
Amount of substance
Bonding
Energetics
Kinetics
Chemical equilibria
Redox reactions
Thermodynamics
Rate equations
Equilibrium constant
Electrode potentials
Acids and bases

Inorganic Chemistry

Periodicity
Group 2 elements
Group 7 elements
Properties of Period 3 elements
Transition metals
Reactions of ions in aqueous solution

Organic Chemistry

Alkanes
Halogenalkanes
Alkenes
Alcohols
Organic Analysis
Optical isomerism
Aldehydes and Ketones
Carboxylic acids
Aromatic Chemistry
Amines
Polymers
Amino acids, proteins and DNA
Organic synthesis
Nuclear Magnetic Resonance
Spectroscopy
Chromatography

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What is the jump from GCSE to A – Level like?

While there is a jump in both the difficulty of the content and the demands of the course, many aspects of A – Level Chemistry build on topics studied at GCSE such as structure and bonding and organic chemistry. You will delve further into areas previously studied, while new topics such as thermodynamics are introduced.

Other Learning Opportunities:
· Lecture demonstrations at local Universities
· Industry tours
· Supporting KS3/4 students in Science lessons

Where next with this course?

A level Chemistry is often a requirement for degree courses in Medicine, Dentistry, Veterinary Science, Pharmacy, Pharmacology, Analytical Chemistry and Chemical Engineering.
Some courses that find chemistry desirable include food technology, nursing, physiotherapy, radiography, paramedical courses, law and zoology.

A degree in Chemistry could lead to opportunities in chemical industries, such as pharmaceuticals, agrochemicals, petrochemicals, toiletries, plastics and polymers. However, those who study chemistry could enter many different sectors including the food and drink industry, utilities and research, health and medical organisations, journalism and scientific research organisations and agencies.

FAQs

Do I have to have taken triple science?

While not required, if you have studied triple science (rather than combined) you will have covered more aspects that are built upon at A – Level, such as a range of calculations from the quantitative chemistry. Therefore you will have a background knowledge to build upon.

For more information about courses that are available at Higham Lane Sixth Form, please visit our website