

Chemistry A level



Hertswood

Why take this subject?

If you enjoyed Chemistry at GCSE, you'll love this A Level course. You will gain a real in-depth knowledge of this fascinating subject, preparing you for further education or giving you the credentials to enhance your job options straight away. Chemists have greatly improved the quality of life for the majority of people. You also find out how chemists are real innovators, designing solutions to the problems that affect modern life. Students with a wide range of interests enjoy the chemistry course. Whether you want a job in medicine or industry, Chemistry is the solid platform upon which careers are built.

What do I need to have studied in year 11?

- You must have at least 5 GCSEs at grades 9-5 including English and Maths
- At least a Grade 6 in in their separate sciences or a minimum 6 in additional science. You should also show consistent effort and homework grades of 2 and above.

What will we study?

In the first year you will be learning some basics of Physical Chemistry, Inorganic Chemistry and Organic Chemistry. In **Physical Chemistry** you will be covering contents like Atomic structure, Amount of substance, Bonding, Energetics. In **Inorganic chemistry** you will be covering topics like Periodicity, Group 2, the alkaline earth metals, Group 7(17), the halogens. In **Organic chemistry** you will be covering topics like Alkanes, Halogenoalkanes, Alkenes, Alcohols and Organic analysis.

In the second year, you will be building upon this foundation to learn about Thermodynamics, Rate equations, Equilibrium constant K_p for homogeneous systems, Electrode potentials and electrochemical cells, Acids and bases in **Physical chemistry**. You will be learning Properties of Period 3 elements and their oxides, Reactions of ions in aqueous solution in **Inorganic chemistry**. You will be exposed to topics like Optical isomerism, Aldehydes and ketones, Carboxylic acids and derivatives, Aromatic, Amines, Polymers, Amino acids, proteins and DNA, Organic synthesis, Nuclear magnetic resonance spectroscopy, Chromatography in **Organic chemistry**.

How will I be examined?

Unit	Assessment	Weighting
Physical (selected topics) & Inorganic chemistry, including relevant practical skills	Paper 1 - 2 hour written exam	35%
Physical (selected topics) & Organic Chemistry, including relevant practical skills	Paper 2 - 2 hour written exam	35%
Paper 3 - Any content from the course and practical skills	Paper 3 - 2 hour written exam	30%

What super curricular opportunities will be available to me?

There will be plenty of extra curricular opportunities – from guest speakers to lectures, trips and visits. Participation in International Chemistry Olympiad conducted by the Royal Society of Chemistry.

What can this subject lead to?

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.

Subject Specification

AQA A Level Chemistry (7405)