

Why choose A-level Chemistry



How can one substance drastically change into another?

Can a new wonder drug save millions of lives?

A-level Chemistry attempts to answer the big question 'what is the world made of?'

You will learn a variety of skills including how to assemble data and assess it, how to investigate facts and use deduction, how to put over your point of view fluently and how to work as a team to achieve results.

What topics will you study?

Physical chemistry

Including atomic structure, amount of substance, bonding, energetics, kinetics, chemical equilibria, Le Chatelier's principle and K_c , oxidation, reduction and redox equations. Thermodynamics, rate equations, equilibrium constant K_p for homogenous systems, electrode potentials and electrochemical cells, acids and bases.

Inorganic chemistry

Periodicity, Group 2, the alkaline earth metals. Group 7(17), the halogens, properties of period 3 elements and their oxides, transition metals, reactions of ions in aqueous solution.

Organic Chemistry

Alkanes, alcohols, organic analysis, optical isomerism, aldehydes and ketones, carboxylic acids and derivatives, aromatic chemistry, amines, polymers, amino acids, proteins and DNA, organic synthesis, nuclear magnetic resonance spectroscopy, chromatography

Possible career options

Studying Chemistry at university can give you a whole host of exciting career options, including:

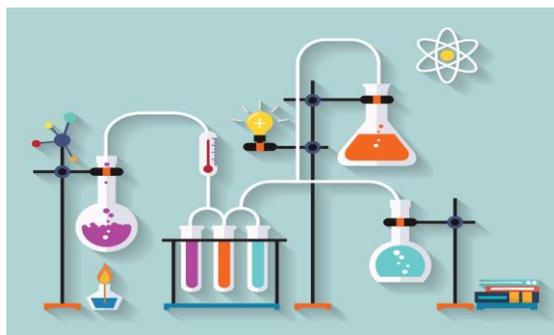
- Analytical chemist
- Chemical engineer
- Clinical biochemist
- Doctor
- Environmental consultant
- Patent attorney
- Research scientist
- Toxicologist
- Chartered certified accountant

Entry requirements

5 GCSEs at grade 5 or above, including English language. Combined science is a minimum requirement at grade 5-5. Ideally you will have separate Chemistry and mathematics at grade 6 or above.

Assessment

There are three exams. The three exams are 2 hours each and consist of short and long answer questions. Practical techniques are endorsed by a certificate of competency on completion of twelve key experiments over two years.



Chilwell School Sixth Form

chilwellschool.co.uk/sixthform