



Chemistry A level

A-level Chemistry is a 2 year linear course. Chemistry is essential for many degrees, for example, medicine, dentistry, veterinary science, pharmacology to name a few. Achieving A-level Chemistry will show that you have skills in many areas such as; problem solving, the application of scientific knowledge and practical skills. Approximately 50% of the course is mathematical and therefore involves calculations. Chemistry is a popular and widely respected course that many students enjoy due to its practical and challenging elements.

What is the course content?

Year 12:

Physical chemistry

- Atomic structure
- Amount of substance
- Bonding
- Energetics & Kinetics
- Chemical equilibria and Le Chatelier's principle
- Oxidation, reduction and redox equations

Inorganic chemistry

- Periodicity
- Group 2, the alkaline earth metals & Group 7(17), the halogens

Organic chemistry

- Introduction to organic chemistry
- Alkanes
- Halogenoalkanes
- Alkenes & Alcohols
- Organic analysis

Year 13:

Physical chemistry

- Thermodynamics
- Rate equations
- Equilibrium constant K_c for homogeneous systems
- Electrode potentials and electrochemical cells
- Acids and bases



Inorganic chemistry

- Transition metals
- Reactions of ions in aqueous solution

Organic chemistry

- Optical isomerism
- Aldehydes, ketones, carboxylic acids and derivatives
- Aromatic chemistry
- Amines
- Polymers
- Amino acids, proteins and DNA
- Organic synthesis
- Nuclear magnetic resonance spectroscopy
- Chromatography

How is the course assessed?

The course is assessed at the end of two years. This will take place through 3 two hour exams. There is no controlled assessment or coursework.

- Exam 1 will consist of physical chemistry, inorganic chemistry and practical skills.
- Exam 2 will consist of organic chemistry, physical chemistry and practical skills.
- Exam 3 will consist all the content and practical skills.
- A separate practical endorsement will be awarded alongside the A-level.

Future Opportunities

Chemistry offers a wide range of opportunities. Many students will go on to study degree courses such as; Medicine, Biochemistry, Biomedical Sciences, Clinical Sciences, Environmental Science, Law, Psychology, Engineering, Dentistry, Journalism, Teaching, Pharmacy, Veterinary Science, Optometry and many more.

Key Contact

For further information, please contact Mrs Emma Robinson

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