

# Chemistry

**Subject Lead: Mrs Glaister**

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## Key topics covered

Y12 Section 1 Physical chemistry; Atomic structure, Amounts of substance, Bonding, Energetics, Kinetics, Equilibria, Oxidation and Reduction.

Section 2: Inorganic chemistry; Periodicity, Group 2, group 7.

Section 3: Organic chemistry; Alkanes, Halogenoalkanes, Alkenes, Alcohols, Organic analysis,

Y13 Section 4 Physical chemistry; Thermodynamics, Kinetics, Equilibrium constants, Electrode potentials, Acids, bases and buffers.

Section 5: Inorganic chemistry; Periodicity, Transition metals

Section 6: Organic chemistry; isomerism, carbonyl chemistry, aromatics, amines, amino acids and organic synthesis

## Recommended Textbook and/or resources

Course Text book; AQA Chemistry A level, 2<sup>nd</sup> edition, Ted Lister & Janet Renshaw ISBN 978-0-19-835182-5

Useful websites [www.chemguide.co.uk](http://www.chemguide.co.uk)

[Physicsandmathstutor.com](http://Physicsandmathstutor.com)

Past paper and mark schemes provision ...AQA website [www.aqa.org.uk](http://www.aqa.org.uk)

Maths Skills for A Level Chemistry Second addition (Maths Skills for A Level Science)

Scientific calculator

## Why Study the Subject/what students Like about it

Chemistry is a great choice of subject for people who want a career in the chemical industry or in the medical field such as medicine, biochemistry, dentistry, or forensic science. It will also equip you for a career in industry, for example in the pharmaceutical industry, ICI and leads to other professions such as the Law, accountancy, financial sector.

It teaches you to be analytical and diagnostic, you have to apply theories to solve problems that are complex. Life is a series of problem-solving exercises and chemistry provides you with some of those valuable skills.

## Opportunities outside the classroom

Students studying Chemistry have access to a range of additional resources from exam questions on Class Charts to Ebooks. Visits are also made to the UEA and working laboratories, which allows students to observe and complete practical applications of chemistry discussed within the classroom.

RSC Spectroscopy in a suitcase challenge occurs in Y12.

## Future progression/career routes

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

