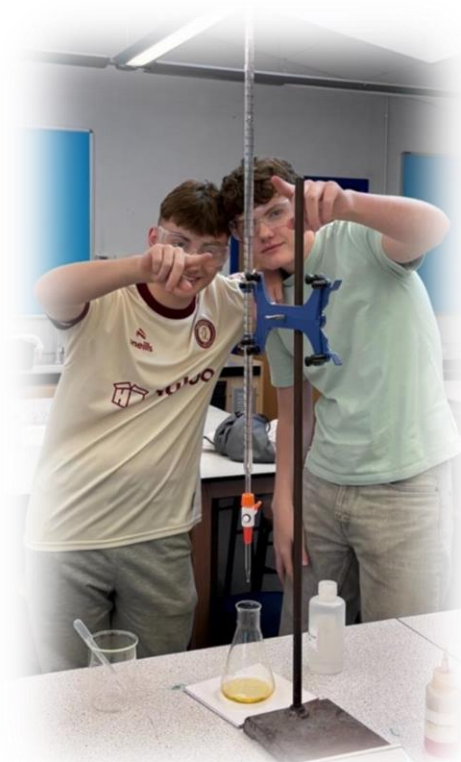


# A Level Chemistry



12 <b>C</b> 6	1 <b>H</b> 1	168 <b>Er</b> 68	55 <b>Mn</b> 25	168 <b>I</b> 68	32 <b>S</b> 16	204 <b>Tl</b> 81	85.5 <b>Rb</b> 37	89 <b>Y</b> 39
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# Introducing A Level Chemistry

A Level Chemistry opens doors. It's a challenging, respected subject that develops your problem-solving, analytical thinking, and practical skills—all highly valued by universities and employers. You'll explore how the world works at a molecular level, from designing medicines to understanding climate change, energy, materials, and life itself.

Chemistry keeps your future options wide open: it's essential for careers like medicine, dentistry, pharmacy and veterinary science, and highly useful for engineering, biochemistry, environmental science, and many more. If you enjoy practical experiments, thinking logically, discovering the science behind everyday life, and have a good work ethic then Chemistry could be the subject for you.

## Specification Content

OCR A Chemistry is divided into **6 modules** that are taught over the two years:

Year 12	Year 13
<b>Module 1: Development of Practical Skills</b> <ul style="list-style-type: none"><li>🧪 Planning, analysis, evaluation</li><li>🧪 Practical techniques and safety</li><li>🧪 Linked to the 12 PAG experiments</li></ul>	<b>Module 1: Development of Practical Skills</b> <ul style="list-style-type: none"><li>🧪 Planning, analysis, evaluation</li><li>🧪 Practical techniques and safety</li><li>🧪 Linked to the 12 PAG experiments</li></ul>
<b>Module 2: Foundations in Chemistry</b> <ul style="list-style-type: none"><li>🧪 Atomic structure</li><li>🧪 Amount of substance</li><li>🧪 Bonding and structure</li><li>🧪 Redox terminology and reactions</li><li>🧪 Acid–base chemistry</li></ul>	<b>Module 5: Physical Chemistry and Transition Elements</b> <ul style="list-style-type: none"><li>🧪 Reaction kinetics</li><li>🧪 Equilibrium (<math>K_c</math>, <math>K_p</math>)</li><li>🧪 pH and buffers</li><li>🧪 Thermodynamics</li><li>🧪 Redox and electrode potentials</li><li>🧪 Transition metal chemistry</li></ul>
<b>Module 3: Periodic Table and Energy</b> <ul style="list-style-type: none"><li>🧪 Periodicity</li><li>🧪 Group 2 and Group 7</li><li>🧪 Enthalpy changes</li><li>🧪 Reaction rates and equilibrium</li><li>🧪 Catalysts</li><li>🧪 Le Chatelier's principle</li></ul>	<b>Module 6: Organic Chemistry and Analysis</b> <ul style="list-style-type: none"><li>🧪 Aromatic chemistry</li><li>🧪 Carbonyls, carboxylic acids, esters</li><li>🧪 Amines, amino acids, polymers</li><li>🧪 Chromatography</li><li>🧪 NMR spectroscopy</li><li>🧪 Synthetic routes and multi-step synthesis</li></ul>
<b>Module 4: Core Organic Chemistry</b> <ul style="list-style-type: none"><li>🧪 Basic organic principles (nomenclature, isomerism)</li><li>🧪 Alkanes, alkenes, alcohols</li><li>🧪 Haloalkanes</li><li>🧪 Organic synthesis pathways</li></ul>	

# A Level Assessment




Students will be assessed by three written examinations at the end of Year 13.

Examination	1	2	3
Modules	1,2,3 &5	1,2,4 &6	1-6
Marks available	100	100	70
Percentage	37	37	26
Time	2hr 15	2hr 15	1 hr 30

In addition to the written examinations there is also the practical endorsement. This assesses competency of the 12 PAG experiments. It will not count towards the A level grade, but it is reported alongside it as a pass or a fail.
















## Subject combinations

A Level Chemistry can be studied with a wide range of other subjects. The three below would support the course the most, however, other subjects like Geography are commonly taken too.









-  **Biology** – supports the organic mechanisms and buffers in the body
-  **Mathematics** – supports physical chemistry, kinetics, thermodynamics and amount of substance.
-  **Physics** – has links to thermodynamics, electrochemistry and enthalpy.

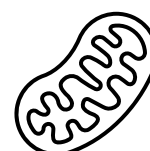
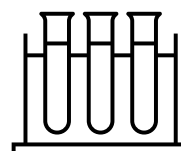
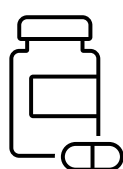
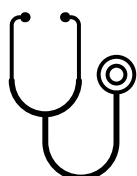
## Progression Routes

Degree courses where Chemistry is **required** or strongly recommended

-  **Medicine**
-  **Dentistry**
-  **Veterinary Science**
-  **Pharmacy**
-  **Chemical Engineering**
-  **Biochemistry**
-  Biomedical Science
-  Natural Sciences
-  Forensic Science
-  Materials Science
-  Environmental Science
-  Molecular Biology / Genetics
-  Food Science
-  Pharmacology
-  Toxicology

Other Degrees Where Chemistry Is Useful

-  Geology / Earth Science
-  Nutrition
-  Neuroscience
-  Marine Biology
-  Sports Science
-  Agricultural Science
-  Energy Engineering
-  Renewable Energy



# Entry and skill requirements

What are the entry requirements for A Level Chemistry

Grade 4 in English and a Grade 6 in Mathematics

And

Grade 6 in Chemistry (separate Science)

Or

Grade 6-6 in Combined Science

## What do our students think?

"It's very interesting learning about the fundamentals of life"  
"It's hard work but good fun"

"If you want to do it, just do it. Don't be put off by people saying "oh that's really hard"."

The course is "vital for future success"

"The experiments are quite fun"  
"Take it if you want to challenge yourself"

"pay attention in year 11- it does help!"

## Contact us

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