

# Chemistry A-Level

Exam Board: AQA

## Summary of course content Chemistry

Qualification	Modules studied	
Year 1	Physical chemistry	Atomic structure Amount of substance Bonding Energetics Kinetics Chemical equilibrium
	Inorganic chemistry	Trends of the periodic table Group 2 the alkaline earth metals Group 7 the halogens
	Organic chemistry	Introduction to organic chemistry Alkanes Halogenoalkanes Alkenes Alcohols Organic analysis.

## Summary of course content Chemistry A-Level

Qualification	Modules studied	
<b>A-level Chemistry</b>  Linear assessment, with <u>all exams</u> at the end of the 2 year course.	Physical chemistry	<b>Year 1 content plus:</b> Thermodynamics Rate equations Equilibrium constant (K <sub>p</sub> ) Acids & bases Electrochemical cells.
	Inorganic chemistry	<b>Year 1 content plus:</b> Properties of Period 3 elements and their oxides Transition metals Reactions of ions in aqueous solution.

<p><b>A-level Chemistry (cont)</b></p> <p>Linear assessment, with <u>all exams</u> at the end of the 2 year course.</p>	<p>Organic chemistry</p>	<p><b>Year 1 content plus:</b>  Optical isomerism  Aldehydes and ketones  Carboxylic acids and derivatives  Aromatic chemistry  Amines  Polymers  Amino acids, proteins and DNA,  Organic synthesis  NMR spectroscopy  Chromatography</p>
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### A-Level Chemistry Exams

Content	Assessment	Questions
<p><b>Paper 1</b></p> <ul style="list-style-type: none"> <li>Inorganic chemistry, with relevant physical chemistry</li> <li>Relevant practical skills</li> </ul>	<p>Written exam: 2 hours</p> <ul style="list-style-type: none"> <li>105 marks</li> <li>35% of A-level</li> </ul>	<p>105 marks: a mixture of short and long answer questions</p>
<p><b>Paper 2</b></p> <ul style="list-style-type: none"> <li>Organic chemistry, with relevant physical chemistry</li> <li>Relevant practical skills</li> <li></li> </ul>	<p>Written exam: 2 hours</p> <ul style="list-style-type: none"> <li>105 marks</li> <li>35% of A-level</li> </ul>	<p>105 marks: a mixture of short and long answer questions</p>
<p><b>Paper 3</b></p> <ul style="list-style-type: none"> <li>All practical skills</li> <li>All content</li> </ul>	<p>Written exam: 2 hours</p> <ul style="list-style-type: none"> <li>90 marks</li> <li>30% of A-level</li> </ul>	<ul style="list-style-type: none"> <li>40 marks: questions on practical techniques and data analysis</li> <li>20 marks: testing across the specification</li> <li>30 marks: multiple choice questions</li> </ul>

### Why you should consider studying Chemistry in the 6<sup>th</sup> Form

The main advantages are:

- Chemistry is one of the eight *facilitating* subjects. Russell Group Universities suggest you take at least one of these subjects at A level.
- The 100% pass rate in A level Chemistry in recent years, with many A and A\* grades..
- A high practical element to the course
- Chemistry is recognised as a highly academic subject - respected by universities and employers alike, as it requires such a broad range of skills.

## **Frequently asked questions**

### **Do I need to have GCSE science qualifications?**

You will need to have either gained high grades in your science GCSE, at least grade 6. Mathematics GCSE at a grade 6 or higher is also desirable.

### **Are there any other A-levels that would be useful to study with chemistry?**

The mathematical content of the A-Level has increased so you will need a good understanding of basic mathematical skills during this course and should be very confident with rearranging equations, being able to draw graphs with confidence and learning and using mathematical formulae. Studying mathematics alongside chemistry would support not only your mathematic skills & but also your ability to solve mathematical problems which are a characteristic of A-level chemistry. The biochemistry elements match well with biology and elements of the physical chemistry match well with physics.

### **What skills do I need to do well?**

In our experience, there are 4 qualities which are particularly important to do well in both AS and A-level chemistry:

- The ability to learn factual material thoroughly
- A good understanding of concepts
- The ability to communicate clearly and precisely in writing
- The ability to dissect and solve mathematical problems accurately