

# Curriculum Overview

Subject: Chemistry

Year Group: Year 12



Students taking the A-Level Chemistry course, will build on the prior GCSE knowledge and further explore the theories, principles, and intricacies in greater depth. Chemistry is known as the 'central science' because it connects with all other natural sciences, such as biology, physics, and mathematics. Students will develop analytical skills and applied numerical abilities through A-Level study of the subject.

The course specification is thoughtfully structured into distinct topics, encompassing the key concepts essential to the discipline. Emphasis is placed on modelling and exam skills, with practical work integrated as a vital component of our approach. The required practical activities empower students to embed their skills and knowledge, ensuring they meet the stipulations of the Common Practical Assessment Criteria (CPAC).

Chemistry careers can be fascinating and rewarding. A Level chemistry prepares you to progress onto further or higher education, to follow courses chemistry., It is a compulsory choice for anyone wishing to pursue medicine, dentistry and veterinary science, as well as chemistry-based degrees, such as pharmacy, pharmacology, and biochemistry.

<b>TERM 1</b>	<b>TERM 2</b>	<b>TERM 3</b>
<b>KNOWLEDGE/SKILLS</b> <ul style="list-style-type: none"><li>• Atomic Structure</li><li>• Amount of substances</li><li>• Bonding</li><li>• Periodicity</li><li>• Introduction to organic chemistry</li></ul>	<b>KNOWLEDGE/SKILLS</b> <ul style="list-style-type: none"><li>• Alkanes</li><li>• Halogenoalkanes</li><li>• Alkenes</li><li>• Energetics</li><li>• Kinetics</li></ul>	<b>KNOWLEDGE/SKILLS</b> <ul style="list-style-type: none"><li>• Alcohol</li><li>• Organic analysis</li><li>• Group 2</li><li>• Group 7</li><li>• Equilibria</li></ul>

<p>Skills:</p> <ul style="list-style-type: none"> <li>• AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures.</li> <li>• AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.</li> <li>• AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.</li> </ul>	<ul style="list-style-type: none"> <li>• Oxidation, reduction and redox reactions</li> </ul> <p>Skills:</p> <ul style="list-style-type: none"> <li>• AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures.</li> <li>• AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.</li> <li>• AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures.</li> <li>• AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.</li> <li>• AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.</li> </ul>
<p>KEY ASSESSMENTS</p> <p>Half term 1: Topic test: Atomic structure and Amount of substances</p> <p>Half term 2: Topic test: Bonding, Periodicity</p>	<p>KEY ASSESSMENTS</p> <p>Half term 1: Topic test: Introduction to organic chemistry, Alkanes and Energetics</p> <p>Half term 2: End of year 12 PPE's Term 1 and term 2 topics</p>	<p>KEY ASSESSMENTS</p> <p>Half term 1: Topic test: Alcohol, Group 2 and Group 7</p> <p>Half term 2: End of year PPE paper 1</p>
<p>Extended reading suggestions and external resources:</p> <p>UpLearn <a href="https://uplearn.co.uk/">https://uplearn.co.uk/</a>  Save My Exams <a href="https://www.savemyexams.com/as/chemistry/aqa/16/">https://www.savemyexams.com/as/chemistry/aqa/16/</a>  Quizlet <a href="https://quizlet.com/">https://quizlet.com/</a></p> <p>We actively encourage students to read, research and revise over learnt and sent content during their undirected study time, which is supported through our sixth form team.</p>		

# Curriculum Overview

Subject: Chemistry

Year Group: Year 13



TERM 1	TERM 2	TERM 3
<p><b>KNOWLEDGE/SKILLS</b></p> <ul style="list-style-type: none"> <li>• Isomerism and Carbonyl compounds</li> <li>• Thermodynamics</li> <li>• Aromatic compounds and amines</li> <li>• Rate of Equations</li> <li>• Electrode potential and cells</li> </ul> <p><b>Personalised Revision from Year 12 PPE</b></p> <p>Skills: -</p> <ul style="list-style-type: none"> <li>• AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures.</li> <li>• AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.</li> <li>• AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.</li> </ul>	<p><b>KNOWLEDGE/SKILLS</b></p> <ul style="list-style-type: none"> <li>• Polymers</li> <li>• Period 3 and Transition metals</li> <li>• Amino acids, proteins and DNA</li> <li>• Further synthesis and analysis</li> </ul> <p><b>Personalised Revision from December PPE</b></p> <p>Skills:</p> <ul style="list-style-type: none"> <li>• AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures.</li> <li>• AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.</li> <li>• AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.</li> </ul>	<p><b>KNOWLEDGE/SKILLS</b></p> <p><b>Personalised Revision from Easter PPE</b></p> <p>Skills:</p> <ul style="list-style-type: none"> <li>• AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures.</li> <li>• AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.</li> <li>• AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.</li> </ul>

<p><b>KEY ASSESSMENTS</b></p> <p>Half term 1: Topic test: Isomerism and Carbonyl compounds and Thermodynamics</p> <p>Half term 2: December PPE paper 1</p>	<p><b>KEY ASSESSMENTS</b></p> <p>Half term 1: Topic test: Polymers, Period 3 and Transition metals and Amino acids, proteins and DNA</p> <p>Half term 2: Easter PPE paper 2</p>	<p><b>KEY ASSESSMENTS</b></p> <p>A level Exam</p>
<p>Extended reading suggestions and external resources:</p> <p>UpLearn <a href="https://uplearn.co.uk/">https://uplearn.co.uk/</a></p> <p>Save My Exams <a href="https://www.savemyexams.com/as/chemistry/aqa/16/">https://www.savemyexams.com/as/chemistry/aqa/16/</a></p> <p>Quizlet <a href="https://quizlet.com/">https://quizlet.com/</a></p> <p>We actively encourage students to read, research and revise over learnt and sent content during their undirected study time, which is supported through our sixth form team.</p>		