

# Curriculum Overview

Subject: Chemistry

Year Group: 10



Year 10 & 11 Chemistry is **academically ambitious**. Throughout Key Stage 4 (KS4) pupils will extend the **powerful knowledge** already developed in KS3. Each Lesson has a particular **LORIC** and **Career focus** reflecting the school's improvement plan.

With a focus on Key Concepts, Apparatus and Techniques across all topics pupils will develop the **subject disciplinary knowledge** needed to scrutinise the world around them and communicate their findings effectively. Pupils will follow the AQA GCSE Chemistry specification and are required to undertake 8 required practical activities, developing analytical and rational thought processes through planning, experimentation and reflection. **Interleaving questions** at the beginning of every lesson allow pupils to spend time recalling previous learning so that **practise** makes permanent.

TERM 1	TERM 2	TERM 3
<p><b>KNOWLEDGE/SKILLS</b></p> <p><b>C5-</b> Chemical changes (acids and alkali, the reactivity series, extracting metals)</p> <p><b>C6</b> - Electrolysis</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> </ul>	<p><b>KNOWLEDGE/SKILLS</b></p> <p><b>C7</b> - Energy changes (Endo/Exothermic reaction, bond energy, batteries, fuel cells)</p> <p><b>C8</b> - Rates and equilibrium (Rates of reactions and how they can be manipulated)</p> <p><b>C9-</b> Crude oil and fuels (Hydrocarbons, fractional distillation)</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> </ul>	<p><b>KNOWLEDGE/SKILLS</b></p> <p><b>C13-</b> Chemistry of the atmosphere ( Earths early atmosphere, Green house effect)</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> </ul>

<ul style="list-style-type: none"> <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>• 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>• 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 5 test</p> <p>Half term 2: EOT test</p>	<p><b>KEY ASSESSMENTS</b></p> <p>Half term 1: Topic 7/8 test,</p> <p>Half term 2: EOT test</p>	<p><b>KEY ASSESSMENTS</b></p> <p>Half term 1: PPE paper 1</p> <p>Half term 2: QLA assessment.</p>
<p>Extended reading suggestions and external resources:</p> <p>KS4 Bitesize Science <a href="https://www.bbc.co.uk/bitesize/subjects/zs6hvcw">https://www.bbc.co.uk/bitesize/subjects/zs6hvcw</a></p> <p>Oak National Academy Lessons <a href="https://classroom.thenational.academy/subjects-by-key-stage/key-stage-4/subjects/chemistry">https://classroom.thenational.academy/subjects-by-key-stage/key-stage-4/subjects/chemistry</a></p> <p>Chase High Youtube Playlists <a href="https://www.youtube.com/channel/UCSK4ImJfi5sPH4UBp7cZtyQ">https://www.youtube.com/channel/UCSK4ImJfi5sPH4UBp7cZtyQ</a></p> <p>We actively encourage pupils to read and research about the wider Scientific world- Planet Earth and Perfect Planet both on BBC iPlayer are examples of where pupils can engage with Science from the safety and comfort of their own homes.</p>		