

The chemistry A-level at Pimlico follows the OCR B Chemistry (Salters) specification. In contrast to many traditional ‘topic-based’ approaches, Salters Chemistry is ‘context-led’. Chemical concepts are introduced around contemporary issues in chemistry eg climate change or the development of medicines.

Students study the chemistry in a spiral way so that chemical ideas, introduced in an early topic, are reinforced later. The ‘drip-feed’ approach to teaching and learning chemical principles allows candidates to revisit a particular topic several times during the course, each time taking their knowledge and understanding a step further. The units studied and their order are given below:

	Term 1+2	Term 3+4	Term 5+6
<b>YEAR 12 Chemistry</b>	<p>Elements of life</p> <ul style="list-style-type: none"> <li>• Atomic structure</li> <li>• Amounts of substances</li> <li>• Light and electrons</li> <li>• Bonding</li> <li>• Periodicity</li> <li>• Periodic table - Group 2</li> <li>• Techniques - titration</li> </ul> <p>Developing Fuels</p> <ul style="list-style-type: none"> <li>• Organic chemistry – alkanes and alkenes</li> <li>• Enthalpy changes - combustion</li> <li>• Catalysts</li> <li>• Alternatives to fossil fuels</li> </ul>	<p>Elements of the sea</p> <ul style="list-style-type: none"> <li>• Periodic table -Group 7</li> <li>• Equilibrium</li> <li>• Redox – oxidation states</li> <li>• Electrolysis</li> </ul> <p>Ozone</p> <ul style="list-style-type: none"> <li>• Organic chemistry - Haloalkanes</li> <li>• Radicals</li> <li>• Intermolecular bonds</li> <li>• Gas calculations</li> </ul>	<p>What’s in a medicine</p> <ul style="list-style-type: none"> <li>• Spectroscopy (IR, visible, mass)</li> <li>• Organic chemistry - Alcohols, phenols and carboxylic acids</li> <li>• Techniques - Preparation of a liquid and solid organic molecule, TLC, melting point</li> <li>• Organic chemistry - esters</li> </ul>

<p><b>YEAR 13 Chemistry</b></p>	<p>Chemical industry</p> <ul style="list-style-type: none"> <li>• Nitrogen chemistry</li> <li>• Equilibrium in industry</li> <li>• Rate of a reaction – factors affecting it</li> <li>• Half lives</li> </ul> <p>Polymers and life</p> <ul style="list-style-type: none"> <li>• Spectroscopy (NMR)</li> <li>• Organic chemistry – amino acids, proteins, polyamides, DNA and RNA</li> <li>• Rate of a reaction – enzymes</li> </ul>	<p>Oceans</p> <ul style="list-style-type: none"> <li>• Acid base chemistry</li> <li>• Equilibrium – in weak acids and bases</li> <li>• Buffers</li> <li>• Enthalpy changes – in solution</li> </ul> <p>Developing metals</p> <ul style="list-style-type: none"> <li>• Redox – electrochemical cells, rusting</li> <li>• Periodic table – transition metals – including complexes</li> <li>• Techniques - Colorimetry</li> </ul>	<p>Colour by design</p> <ul style="list-style-type: none"> <li>• Organic chemistry – Arenes, azo dyes, fats and oils</li> <li>• Techniques – glc</li> <li>• Colour chemistry</li> </ul>
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