

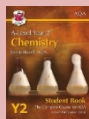
## The English Martyrs Catholic School and Sixth Form College



<b>Chemistry Year 13 - B</b>	<b>Module 1</b>	<b>Module 2</b>	<b>Module 3</b>
<b><u>Topic Theme and Intent</u></b>	Students learn about <b>Optical isomerism, aldehydes and ketones and carboxylic acids and their derivatives</b> . These topics are studied so that students start to build a toolkit of reactions required to design and produce specific molecules.	Students learn about <b>aromatic chemistry, amines, polymers, biochemistry and structure determination</b> . These topics are studied so that students can further deepen their knowledge of organic synthesis and understand the methods employed to identify chemicals produced.	In this module students consolidate their learning and revise <b>key concepts</b> in the build up to their exams. Students look at <b>specific areas</b> identified in the mocks as weaknesses and complete broader revision of specific topics identified on an <b>individual</b> basis.
<b><u>Knowledge</u></b>	<ul style="list-style-type: none"> <li>Optical isomerism</li> <li>Aldehydes and ketones</li> <li>Carboxylic acids and derivatives</li> </ul>	<ul style="list-style-type: none"> <li>Aromatic chemistry</li> <li>Amines</li> <li>Polymers</li> <li>Amino acids, proteins and DNA</li> <li>Nuclear magnetic resonance spectroscopy</li> <li>Chromatography</li> </ul>	<ul style="list-style-type: none"> <li>Organic chemistry</li> <li>Physical chemistry</li> <li>Required practicals</li> </ul>
<b><u>Skills</u></b>	Students plan and carry out an investigation to produce aspirin and determine its purity.	Students use Thin Layer Chromatography to identify the chemicals present in a mixture.	Students practice their exam technique to better prepare them for their exams. They focus on command words and an understanding of mark schemes.
<b><u>Literacy Links</u></b>	<p><b>Reading</b> – Students will read about the importance of medicinal chemicals.</p> <p><b>Writing</b> – Students start to communicate scientific ideas and concepts through writing.</p> <p><b>Oracy</b> – Students start to use scientific vocabulary in discussion and question and answering.</p>	<p><b>Reading</b> – Students will read about the uses of NMR spectroscopy.</p> <p><b>Writing</b> – Students practise communicating scientific ideas and concepts through writing.</p> <p><b>Oracy</b> – Students practise the use of scientific vocabulary in discussion and question and answering.</p>	<p><b>Reading</b> – Students will read about the key ideas they have covered.</p> <p><b>Writing</b> – Students practise communicating scientific ideas and concepts through writing.</p> <p><b>Oracy</b> – Students practise the use of scientific vocabulary in discussion and question and answering.</p>
<b><u>Essential Vocabulary</u></b>	Optical isomer, Enantiomer, Chiral, Ketone, Aldehyde, Addition-elimination, Ester, Acyl Chloride, Acid Anhydride	Benzene, Aromatic, Friedel Crafts, Amines, Amides, Condensation polymers, Amino acids, DNA, NMR, Chemical shift	Mechanism, Structure determination, synthesis, aromatic, aliphatic, isomers

### Disciplinary Reading

CGP Books – A level Chemistry, & Oxford Revise A level Chemistry.



### Reading for Pleasure

P. Ball - H<sub>2</sub>O: A Biography of Water



P. Atkins - Chemistry: A very short introduction



. Bryson – A short history of nearly everything

