

<b>Subject</b>	<b>Chemistry A Level</b>
<b>Context / relevance</b>	<p><b>Organic</b></p> <p>You will have encountered basic organic chemistry at GCSE (mainly hydrocarbons; and if you did Triple also alcohols, carboxylic acids and a brief mention of halogenoalkanes). At A-Level you will expand your knowledge of this, becoming familiar with the behaviour of a greater variety of organic compounds. At the heart of this will be your ability to represent these compounds and learn how they are used to make new products.</p> <p><b>Physical</b></p> <p>At GCSE you cover basic principles of physical chemistry involving calculations (for example using moles to find amounts of substances; and if you did Triple also yield and atom economy). At A-level you will apply this to new situations which you will take forward into your lab work. You will need a good understanding of standard form, significant figures and the ability to rearrange equations.</p> <p>You will also be required to construct chemical formulae and balanced chemical equations.</p> <p>Structure and bonding forms the bases of much of our work in both physical and organic chemistry, so your GCSE knowledge should be secure when moving forward with this.</p>
<b>Securing</b>	<p><b>Organic</b></p> <p>1. Follow both links and read through the rules on drawing and naming organic molecules:  <a href="http://www.chemguide.co.uk/basicorg/conventions/draw.html">http://www.chemguide.co.uk/basicorg/conventions/draw.html</a>  <a href="http://www.chemguide.co.uk/basicorg/conventions/names.html">http://www.chemguide.co.uk/basicorg/conventions/names.html</a></p> <p>Make notes on the following:</p> <ul style="list-style-type: none"> <li>• Molecular formulae, displayed formulae, simplified structural formulae, skeletal formulae.</li> <li>• Naming alkanes, cycloalkanes, alkenes, compounds containing halogens, alcohols. [no need to do aldehydes and ketones now]</li> </ul> <p>Be prepared to share these with your teacher.</p> <p><i>Note: those of you who took Combined Science at GCSE will have learnt fewer organic functional groups (only alkanes and alkenes). This is a good opportunity to ensure you are introduced to a wider range of molecules</i></p>

	<p><b>Physical</b></p> <p>2. Complete the question sheets on:</p> <ul style="list-style-type: none"> <li>• Rearranging formulae</li> <li>• Writing substance formulae and names</li> <li>• Structure and Bonding</li> </ul>
<b>Processing</b>	<p>Complete the question sheet on Calculations.</p> <p>You <b>must</b> show your working out</p> <p>If you need help, please refer to the following links:</p> <p><a href="https://www.bbc.co.uk/bitesize/topics/z87mw6f">https://www.bbc.co.uk/bitesize/topics/z87mw6f</a></p> <p><a href="https://www.bbc.co.uk/bitesize/guides/z2ty97h/revision/3">https://www.bbc.co.uk/bitesize/guides/z2ty97h/revision/3</a></p> <p><i>Note, you may not have come across empirical formulae, depending on your exam board. If you took Combined science, you are unlikely to have done concentration calculations. Use the links to help you with both of these, and we will consolidate them as part of your taught work in Year 12.</i></p>
<b>Exploring</b>	<p>Research and write a response to the question:</p> <p>“The Ozone Layer, what is it and what are the issues?”</p> <p>The word limit is <b>500 words ± 10%</b></p> <p>Please include the following:</p> <ul style="list-style-type: none"> <li>• What is the ozone layer? Where is it? Why is it important?</li> <li>• What are CFC's? What are they used for?</li> <li>• What impact were CFC's found to have on the ozone layer? What was the issue with this? What has been done to reduce this?</li> </ul> <p>Include 2-3 references. If these are from a web page, please write/copy out the <b>full</b> URL, and give the date you accessed the page.</p>
<b>Reviewing</b>	<p>Complete the worksheet on Naming organic compounds, which will review some of the principles you learnt in the organic tasks.</p>