



**Year 11**

**Pathway 2/3/4**

**Science - Autumn Term**

**Learning Intention: OCR Science Entry Level - Physics**

- OCR ELP9 Pushes and Pulls
- ELP10 Driving Along
- ELP4 Hot Stuff
- ELP12 Final Frontiers
- ELP5 Alternative Energy

**Key knowledge that should be learned during this SoW**

All (Pathway 2)

Most (Pathway 3)

Some (Pathway 4)


**Concept:**

**Knowledge:**

**Key Skills:**

**Language and/or communication skills:**

<b>Curricular Links</b>	
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	<b>Year 11</b>	<b>Pathway 2/3/4</b>	<b>Science - Spring Term</b>
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<p><b>Learning Intention: OCR Science Entry Level - <u>Biology</u></b></p> <ul style="list-style-type: none"> <li>● ELB2 Babies</li> <li>● ELB6 Casualty</li> <li>● ELB9 Creepy Crawlies</li> <li>● ELB10 Extinction</li> <li>● ELB11 My Genes</li> </ul>			
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<b>Key knowledge that should be learned during this SoW</b>	All (Pathway 2)		
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<b>Concept:</b>			
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<b>Knowledge:</b>			
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<b>Key Skills:</b>			
<b>Language and/or communication skills:</b>			
<b>Curricular Links</b>			


	<b>Year 11</b>	<b>Pathway 2/3/4</b>	<b>Science - Summer Term</b>
<p><b>Learning Intention: OCR Science Entry Level - <u>Chemistry</u></b></p> <ul style="list-style-type: none"> <li>• ELC2 Acids and Alkalis</li> <li>• ELC1 Physical or Chemical Change</li> <li>• ELC10 Are You Overreacting?</li> <li>• ELC5 Novel Materials</li> <li>• ELC3 Everything in its Place</li> </ul>			
<b>Key knowledge that should be learned during this SoW</b>	<b>All (Pathway 2)</b>		

<b>Concept:</b>			
<b>Knowledge:</b>			
<b>Key Skills:</b>			
<b>Language and/or communication skills:</b>			
<b>Curricular Links</b>			

	<b>Year 11</b>	<b>Pathway 2/3/4</b>	<b>Science - Summer Term 2</b>
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## Learning Intention: OCR Science Entry Level - Chemistry

### ELC2 Acids and Alkalis

Key knowledge that should be learned during this SoW	All (Pathway 2)	Most (Pathway 3)	Some (Pathway 4)
<b>Concept:</b>	Students will have the opportunity to learn and investigate the properties of Acid and Alkalis and how to use simple indicators to identify them.		
<b>Knowledge/Key Skills:</b>	<ul style="list-style-type: none"><li>● Be able to label simple laboratory apparatus used to obtain a dye from a plant (limited to beaker, stirring rod, heating apparatus, filter funnel, filter paper and mortar and pestle).</li><li>● Know that the colour of some dyes can be changed by adding acids and alkalis.</li><li>● Understand safety precautions when using acids or alkalis.</li><li>● Interpret simple information about the use of indicators to classify solutions as acid, neutral or alkali.</li><li>● Know how to use the pH scale</li><li>● Know that pH can be measured electronically.</li></ul> <div data-bbox="1473 943 1594 1075" style="text-align: center;"></div> <ul style="list-style-type: none"><li>● Know that neutralisation occurs when acids and alkalis are mixed.</li><li>● Know that acids produce protons (H<sup>+</sup>) and alkalis produce hydroxide ions (OH<sup>-</sup>).</li><li>● Know that when you mix acids and alkalis together the protons (H<sup>+</sup>) and hydroxide ions (OH<sup>-</sup>) form H<sub>2</sub>O this is called neutralisation (introduce the name ions to higher level learners, lower level learners may just refer to 'H' and 'OH').</li><li>● Understand the uses of neutralisation, limited to curing indigestion and reducing the acidity of soils.</li><li>● Know that excess acid in the stomach is a cause of indigestion.</li><li>● Interpret simple information comparing the effectiveness of different indigestion remedies [no recall expected].</li></ul>		

<b>Language and/or communication skills:</b>	<ul style="list-style-type: none"><li>● Acid</li><li>● Alkalis</li><li>● Dye</li><li>● Plant</li><li>● Solution</li><li>● Neutralisation</li><li>● pH Scales</li><li>● Protons</li><li>● Hydroxide ions</li><li>● Stomach</li><li>● Indigestion</li></ul>
<b>Curricular Links</b>	This specification provides opportunities for the development of the Key Skills of Communication, Application of Number, Information Technology, Working with Others, Improving Own Learning and Performance, Problem Solving, and Observation skills