

## Year 12 BTEC Applied Science Learning Programme 4

<p>The LORIC skill focus for his LP is: INITIATIVE. The Moral Virtues focus for this LP are: INTEGRITY and GRATITUDE.</p> <p>Integrity - Having strong moral principles. I will show integrity by taking responsibility for my actions. Gratitude - Feeling and expressing thanks. I will show gratitude by saying please and thank you.</p> <p><b>What will I be learning about in this Learning Programme?</b> the structure and function of living organisms.</p> <p><b>Where have I seen this learning before?</b> in KS3 and GCSE biology lessons.</p> <p><b>What could I use it for?</b> For future studies on biology or medical based degree programmes.</p>		<p><b>Literacy Non-Negotiables:</b></p> <ul style="list-style-type: none"> <li>• Capital letters must be used at the start of sentences and for the first letter of proper nouns</li> <li>• Full stops must be used at the end of a sentence</li> <li>• Question marks must be used at the end of a question</li> <li>• Apostrophes should only be used for possession or omission</li> <li>• Days of the week and months must be spelled correctly</li> <li>• Key words must be spelled correctly</li> <li>• Vocabulary to be taught using the Frayer model</li> </ul>
<p><b>In LP4.1, I will know:</b></p> <p>the commercial importance of organic reactions; the benefits and problems of organic compounds and reactions.</p>	<p>09/03/26 - (WK 2)</p> <p>Frayer Model Words</p> <p>Organic</p>	<p>Homework</p> <p>Review questions on organic reactions</p>
<p><b>In LP4.2, I will know:</b></p> <p>the organelles in plant and animal cells and describe the function; the structure of prokaryotic cells and the difference between Gram-positive and Gram-negative bacteria.</p>	<p>16/03/26 - (WK 1)</p> <p>Frayer Model Words</p> <p>Prokaryotic</p>	<p>Homework</p> <p>Review questions on plant and animal cells</p>
<p><b>In LP4.3, I will know:</b></p> <p>how to recognise organelles from electron micrographs and photomicrographs and calculate magnification; the structure and function of specialised eukaryotic cells.</p> <p>Extended Task.</p>	<p>23/03/26 - (WK 2)</p> <p>Frayer Model Words</p> <p>Eukaryotic</p>	<p>Homework</p> <p>Review questions on specialised cells</p>
<p><b>In LP4.4, I will know:</b></p> <p>the benefits and risks of the use of stem cells in medicine; the different tissues found in a plant and the process of transpiration.</p>	<p>13/04/26 - (WK 1)</p> <p>Frayer Model Words</p> <p>Stem cell</p>	<p>Homework</p> <p>Review questions on stem cells</p>
<p><b>In LP4.5, I will know:</b></p> <p>the structure and function of the lungs; the structure and function of the cardiovascular system.</p>	<p>20/04/26 - (WK 2)</p> <p>Frayer Model Words</p> <p>Cardiovascular</p>	<p>Homework</p> <p>Review questions on the cardiovascular system</p>
<p><b>In LP4.6, I will know:</b></p> <p>the structure and function of muscles; the difference between fast and slow twitch muscles.</p> <p>Extended Task.</p>	<p>27/04/26 - (WK 1)</p> <p>Frayer Model Words</p> <p>Myosin</p>	<p>Homework</p> <p>Review questions on muscles</p>
<p><b>In LP4.7, I will know:</b></p> <p>the structure and function of the nervous system and tissue; how a nervous impulse is conducted along the axon of a nerve cell.</p>	<p>04/05/26 - (WK 2)</p> <p>Frayer Model Words</p> <p>Saltatory conduction</p>	<p>Homework</p> <p>Review questions on nervous impulses</p>
<p><b>Resources to support learning:</b></p> <p>Knowledge organiser, Synergy, GCSE bitesize</p>		
<p><b>FFET Award Challenge for this Learning Programme:</b></p> <p>Complete a research booklet on the structure and organisation of the human body.</p>		

