

## Year 10 Combined Science (Bio/Chem)

### Learning Programme 3

<p>The LORIC skill focus for his LP is: RESILIENCE The Moral Virtues focus for this LP are: RESPECT and JUSTICE</p> <p>Respect - treat others how you would wish to be treated yourself. Justice - our College rules are fair and reasonable.</p> <p><b>What will I be learning about in this Learning Programme?</b> You are learning about the structure and function of various organ systems, including the digestive system and the circulatory system.</p> <p><b>Where have I seen this learning before?</b> You have learnt about these systems at KS3 and primary school.</p> <p><b>What could I use it for?</b> You will use this knowledge in A-level Biology, BTEC Applied Science and if you pursue a BSc in Sports Science.</p>		<p><b>Literacy:</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> </ul>
<p><b>In LP3.1, I will know:</b></p> <p>the different food groups and their importance for a healthy diet; how to investigate the main food groups using standard food tests; review the results of food tests.</p>	<p>06/01/25 - (WK 2)</p> <p>Key Vocabulary</p> <p>reagents</p>	<p>Homework</p> <p>Past paper questions on food tests.</p>
<p><b>In LP3.2, I will know:</b></p> <p>the roles played by different digestive enzymes and the factors that may affect them; how to investigate the effect of pH on the rate of amylase action.</p>	<p>13/01/25 - (WK 1)</p> <p>Key Vocabulary</p> <p>enzyme</p>	<p>Homework</p> <p>Past paper questions on the amylase practical.</p>
<p><b>In LP3.3, I will know:</b></p> <p>how hydrochloric acid and bile make digestion more efficient structure of the villi; the structure and function of blood vessels in carrying blood and the importance of valves; the structure and function of the heart.</p>	<p>20/01/25 - (WK 2)</p> <p>Key Vocabulary</p> <p>circulation</p>	<p>Homework</p> <p>Past paper questions on the heart.</p>
<p><b>In LP3.4, I will know:</b></p> <p>causes and symptoms of CVD and how to treat it; the structure of blood and how it is adapted to its function; explain the changes that happen in the body due to exercise.</p> <p>Extended Task.</p>	<p>27/01/25 - (WK 1)</p> <p>Key Vocabulary</p> <p>cardiovascular disease</p>	<p>Homework</p> <p>Past paper questions on blood.</p>
<p><b>In LP3.5, I will know:</b></p> <p>the importance of surface area to volume ratio and how to calculate it; the adaptations of the gas exchange surfaces; the organs and tissues in the human gas exchange system, their roles and how breathing occurs.</p>	<p>03/02/25 - (WK 2)</p> <p>Key Vocabulary</p> <p>surface area: volume</p>	<p>Homework</p> <p>Past paper questions on gas exchange surfaces.</p>
<p><b>In LP3.6, I will know:</b></p> <p>the structure of the human gas exchange system and how gases are exchanged across the alveoli; the parts of the plant organ system and describe how substances are transported around the plant.</p>	<p>10/02/25 - (WK 1)</p> <p>Key Vocabulary</p> <p>transpiration</p>	<p>Homework</p> <p>Past paper questions on the human gas exchange system.</p>
<p><b>LP3 RLW, I will:</b></p> <p>review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.</p>	<p>24/02/25 - (WK 2)</p> <p>Key Vocabulary</p> <p>evaporation</p>	<p>Homework</p> <p>Learning review activity</p>
<p><b>In LP3.7, I will know:</b></p> <p>the role of transpiration, the stomata and guard cells and factors that affect the rate of transpiration.</p> <p>Extended Task.</p>	<p>03/03/25 - (WK 1)</p> <p>Key Vocabulary</p> <p>stomata</p>	<p>Homework</p> <p>Past paper questions on transpiration.</p>
<p><b>Resources to support learning:</b> Knowledge organiser, BBC GCSE bitesize, science booklet, Synergy.</p>		
<p><b>FFET Award Challenge for this Learning Programme:</b> Create a revision resource on a topic of your choice.</p>		

PRT Task 1

PRT Task 2