





**The curriculum for this stage of students' education has been designed to** provide a more practical, real-world approach to learning alongside a clearly explained and structured theoretical background. This will help to develop the knowledge, understanding and skills that underpins progression in the science industry. Develop the understanding of key scientific theories using skills previously acquired in Year 12 and research.

<p><b>HALF TERM 1</b> Unit 3 Science Investigation Skills</p> <p><b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>• Topic D: Enzymes in action. The function of enzymes and how they are affected by different conditions.</li> <li>• Topic E: Diffusion of molecules. How diffusion occurs and the factors that affect the rate of diffusion.</li> <li>• Topic F: Plants and their environment. Factors that affect plant distribution and growth. How to carry out sampling techniques and how to use a transect.</li> </ul> <p><b>HOW THIS WILL BE ASSESSED:</b> Part A, involves carrying out a practical investigation. Part B is a 90-minute written paper divided into two sections: one section is related to the practical work and the other involves writing a plan for an investigation.</p>	<p><b>HALF TERM 2</b> Unit 3 Science Investigation Skills</p> <p><b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>• Topic G: Energy content of fuels. The energy content of fuels and the properties of different fuels.</li> <li>• Topic H: Electrical circuits. How to construct electrical circuits, interpret measurements and solve calculations using formulae.</li> </ul> <p><b>HOW THIS WILL BE ASSESSED:</b> Part A, involves carrying out a practical investigation. Part B is a 90-minute written paper divided into two sections: one section is related to the practical work and the other involves writing a plan for an investigation.</p>	<p><b>HALF TERM 3</b> Unit 8 Physiology of Human Body Systems</p> <p><b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>• Learning Aim A-disorders of the musculoskeletal system. The effectiveness, limitations, strengths and weaknesses of different forms of corrective action and alternative treatment methods offered by medical professionals for one disorder of the musculoskeletal system. The anatomy, physiology and functional roles of the musculoskeletal system. Three different musculoskeletal disorders and the corrective treatments related to these disorders. The corrective treatments that are used for each of the three disorders.</li> </ul> <p><b>HOW THIS WILL BE ASSESSED:</b> A piece of coursework that explains the impact of disorders of the musculoskeletal system and their associated corrective treatments.</p>
<p><b>HALF TERM 4</b> Unit 8 Physiology of Human Body Systems</p> <p><b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>• Learning Aim B-impact on lymphatic system. The effect of corrective treatments on a named lymphatic disorder and the reasons behind the choice of treatments including benefits and problems. Signs and symptoms of the chosen disorder in conjunction with the effects of the disorder on normal lymphatic function. The anatomy of the lymphatic system. A detailed description of normal lymphatic functions.</li> </ul> <p><b>HOW THIS WILL BE ASSESSED:</b> A piece of coursework that explains the impact of disorder on the physiology of the lymphatic system and the associated corrective treatment.</p>	<p><b>HALF TERM 5</b> Unit 8 Physiology of Human Body Systems</p> <p><b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>• Learning Aim C- digestive system. The effect on human health of dietary disease and the treatments used to correct them. The symptoms of nutritional deficiency resulting from dietary related disease and explain the uses of corrective treatments. The role of digestive enzymes in nutrient uptake and explain the role and location of digestive organs. Practical investigations into the nutrient content of a range of foods.</li> </ul> <p><b>HOW THIS WILL BE ASSESSED:</b> A piece of coursework that explains the physiology of the digestive system and the use of corrective treatments for dietary related diseases.</p>	<p><b>HALF TERM 6</b></p> <p><b>STUDENTS MUST KNOW:</b></p> <p><b>HOW THIS WILL BE ASSESSED:</b></p>

**Embedding this knowledge can be supported at home by reviewing class notes, guided learning wider reading, exam practice questions, independent research and study, completing set independent study tasks, watching scientific documentaries and understanding current issues in the scientific world.**