

## Science Stage Four Curriculum – Carre’s Grammar School

<b>Subject</b>						
	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 3</b>	<b>Spring 4</b>	<b>Summer 5</b>	<b>Summer 6</b>
<b>Year 10</b>	<b>Food and digestive, circulatory and respiratory systems</b> <ul style="list-style-type: none"> <li>• Photosynthesis</li> <li>• Respiration (aerobic and anaerobic)</li> <li>• Digestive system</li> <li>• Chemistry of food</li> <li>• Food tests</li> <li>• Enzymes and digestion</li> </ul>		<b>Plant tissues and organs, Communicable and non-communicable disease</b> <ul style="list-style-type: none"> <li>• Blood &amp; blood vessels</li> <li>• The heart &amp; circulation</li> <li>• The lungs and gaseous exchange</li> <li>• Tissues and organs in plants</li> <li>• Plant transport systems</li> <li>• Evaporation and transpiration</li> </ul>		<b>Bioenergetics, biological responses</b> <ul style="list-style-type: none"> <li>• Communicable diseases</li> <li>• Growing bacteria</li> <li>• Preventing and treating disease</li> <li>• Non-communicable disease</li> <li>• Metabolism and the liver</li> <li>• The nervous system</li> <li>• The brain and the eye</li> </ul>	
	<b>Assessment</b> End of topic tests		<b>Assessment</b> Mock examination End of topic tests		<b>Assessment</b> End of topic tests	
<b>Year 11</b>	<b>Biological responses, genetics and reproduction</b> <ul style="list-style-type: none"> <li>• Hormonal control – blood glucose levels</li> <li>• Reproduction and the menstrual cycle</li> <li>• Homeostasis – controlling body temperature and removing waste.</li> <li>• Types of reproduction</li> <li>• Cell division &amp; stem cells</li> <li>• DNA and inheritance</li> <li>• Variation</li> <li>• Evolution</li> <li>• Fossils and extinction</li> <li>• classification</li> </ul>		<b>Required practical focus</b> <ul style="list-style-type: none"> <li>• RP1: Using a light microscope</li> <li>• RP2: The effect of antiseptics or antibiotics on bacterial growth</li> <li>• RP3: The effect of concentration on the mass of plant tissue (osmosis)</li> <li>• RP4: Food tests</li> <li>• RP5: The effect of pH on enzyme action</li> <li>• RP6: The effect of light intensity on the rate of photosynthesis</li> <li>• RP7: The effect of a factor on human reaction time</li> <li>• RP8: The effect of gravity or light on the growth of newly germinated seedlings</li> <li>• RP9: Measure the population size of a common species in a habitat</li> <li>• RP10: The effect of temperature on the rate of decay.</li> </ul>		<b>Revision</b> <ul style="list-style-type: none"> <li>• Paper 1</li> <li>• Paper 2</li> </ul>	
	<b>Assessment</b> Mock examination End of topic tests		<b>Assessment</b> Past papers		<b>Assessment</b> GCSE examinations (May/June)	