## The English Martyrs Catholic School and Sixth Form College



<u>Biology Year 8</u>	Module 1	Module 2	Module 3
<u>Topic Theme and</u> <u>Intent</u>	Students learn about health and lifestyle in the contexts of diet, drugs, alcohol, and smoking. This topic is studied so that students can understand and appreciate how their body responds to the things that they consume.	Students focus on where the <b>energy</b> in our food comes from ( <b>photosynthesis</b> ), and how we then unlock this energy ( <b>respiration</b> ). They study this so that they can understand how all organisms are linked by the flow of energy.	Students learn how organisms <b>compete</b> for <b>resources</b> in nature and how this leads to a concept known as ' <b>survival of the</b> <b>fittest</b> ' ( <b>natural selection</b> ). They study this so they can understand how organisms change over time.
<u>Knowledge</u>	<ul> <li>Nutrients in food and how to test for them.</li> <li>Diet and energy balance.</li> <li>The Digestive System</li> <li>Drugs, alcohol, and smoking.</li> </ul>	<ul> <li>Photosynthesis and adaptations of leaves.</li> <li>Plant minerals.</li> <li>Chemosynthesis.</li> <li>Aerobic and anaerobic respiration.</li> <li>Food chains and food webs.</li> </ul>	<ul> <li>Competition and adaptation.</li> <li>Adapting to change.</li> <li>Variation.</li> <li>Inheritance.</li> <li>The theory of Natural Selection</li> <li>Evolution and extinction.</li> </ul>
<u>Skills</u>	Identify the nutrients in foods using a series of food tests.	Investigate the relationship between recovery and exercise performance.	Investigate the continuous and discontinuous variation in class.
<u>Literacy Links</u>	<ul> <li>Reading – Students will read about energy intake and expenditure.</li> <li>Writing – Students start to communicate scientific ideas and concepts through writing.</li> <li>Oracy – Students start to use scientific vocabulary in discussion and question and answering.</li> </ul>	Reading – Students will read about 'TheBell Jar experiment'.Writing – Students practise	Reading – Students will read about identical and non-identical twins. Writing - Students will communicate scientific ideas and concepts through writing. Oracy – Students use scientific vocabulary in discussion and question and answering.
Essential Vocabulary	Nutrients, Malnutrition, Malnourishment, Enzymes, Medicinal, Recreational, Withdrawal, Depressant, Stimulant.	Producer, Consumer, Photosynthesis, Chlorophyll, Chemosynthesis, Aerobic, Anaerobic, Respiration, Interdependence, Bioaccumulation.	Adaptations, Hibernation, Migration, Inherited, Chromosomes, Genes, Evolution, Extinction, Biodiversity, Endangered.

