

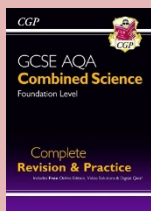
## The English Martyrs Catholic School and Sixth Form College



<u>Biology Year 11</u>	<u>Module 1</u>	<u>Module 2</u>	<u>Module 3</u>
<b><u>Topic Theme and Intent</u></b>	Students revisit <b>reproduction</b> from year 7 and <b>variation</b> from year 8, to focus on how characteristics and disorders are <b>inherited</b> , as well as how scientists intervene to achieve specific and desirable outcomes in <b>phenotypes</b> .	Students revisit <b>evolution</b> by <b>natural selection</b> from year 8 to look more closely at the <b>evidence</b> available to support the theory. Students consider how <b>variation</b> gives some members of certain species <b>survival advantages</b> in changing worlds.	Students discover how to <b>estimate population</b> sizes and / or <b>changes in distributions</b> of organisms. They also focus their attention on the <b>impact humans</b> are having on <b>organisms</b> and what this means for the <b>future</b> .
<b><u>Knowledge</u></b>	<ul style="list-style-type: none"> <li>Sexual and Asexual reproduction.</li> <li>Genetic inheritance</li> <li>Variation</li> <li>Evolution and Natural Selection</li> <li>Selective Breeding</li> <li>Genetic Modification</li> <li>SEP specific – DNA structure, Cloning</li> </ul>	<ul style="list-style-type: none"> <li>Evidence for evolution and Extinction</li> <li>Resistant Bacteria</li> <li>Classification</li> <li>Communities, competition, adaptation and abiotic and biotic factors.</li> <li>SEP specific – key scientists - Darwin, Lamarck, Wallace, Mendel.</li> </ul>	<ul style="list-style-type: none"> <li>Levels of organisation.</li> <li>Sampling.</li> <li>The Water and the Carbon cycles</li> <li>Human impact on Biodiversity and the maintenance of it</li> <li>SEP specific – Decomposition, Trophic levels, and Food production.</li> </ul>
<b><u>Skills</u></b>	Consider the probability of children inherited characteristics.	Consider evidence to support the theory of evolution by natural selection.	Estimate the population size, or change in distribution by sampling methods.
<b><u>Literacy Links</u></b>	<p><b>Reading</b> – Students will read about the Human Genome Project.</p> <p><b>Writing</b> – Students start to communicate scientific ideas and concepts through writing.</p> <p><b>Oracy</b> – Students start to use scientific vocabulary in discussion and question and answering.</p>	<p><b>Reading</b> – Students will read about Abiotic and Biotic factors.</p> <p><b>Writing</b> – Students practise communicating scientific ideas and concepts through writing.</p> <p><b>Oracy</b> – Students practise the use scientific vocabulary in discussion and question and answering.</p>	<p><b>Reading</b> – Students will read about levels of waste production in the UK.</p> <p><b>Writing</b> - Students will communicate scientific ideas and concepts through writing.</p> <p><b>Oracy</b> – Students use scientific vocabulary in discussion and question and answering.</p>
<b><u>Essential Vocabulary</u></b>	Sexual, Asexual, Offspring, Meiosis, Homozygous, Heterozygous, Dominant, Recessive (plus additional vocab for SEP science).	Antibiotics, Taxonomic Ranks, Binomial name, Evolution, Biotic, Abiotic, Interdependence, Extremophiles.	Quadrat, Transect, Transpiration, Decay, Combustion, Exponentially, Biodiversity (plus additional vocab for HT and SEP science).

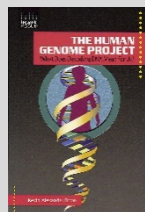
### Disciplinary Reading

CGP Books – GCSE Science COM and SEP, & Oxford Revise COM and SEP.



### Reading for Pleasure

K.A. Boon -The Human Genome Project



A. Roberts – Evolution: The Human Story



J. Juniper – The Ecology Book

