

Subject	Year	Term
<b>Biology</b>	<b>13</b>	<b>1</b>
Topic		
<b>Module 5 Communication, homeostasis and energy; Module 6 Genetics, evolution and ecosystems</b>		
Content (Intent)		
<p><b>Prior Learning (Topic)</b>    Module 4 – Biodiversity, Evolution and Disease; Module 5 – Communication, homeostasis and energy (photosynthesis)</p> <hr style="border-top: 1px dashed black;"/> <p><b>Module 5 Energy transfers in and between organisms</b> - Respiration, homeostasis, neuronal Communication, brain structure and function, muscle contraction.</p> <p><b>Module 6 Genetics</b> – Inheritance patterns, control of gene expression, Selection, hardy Weinberg calculation, speciation, Manipulating genomes, DNA sequencing, genetic engineering, DNA profiling, ethical issues.</p> <hr style="border-top: 1px dashed black;"/> <p><b>Future Learning (Topic)</b>    Module 5 Communication, Homeostasis and Energy; Module 6 – Genetics, evolution and ecosystems</p>		
What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)	
<p><b>Module 5 – Aerobic and anaerobic respiration</b> glycolysis, krebs cycle, chemiosmosis, oxidative phosphorylation and</p> <p><b>Practical investigations</b> into the effect of factors such as temperature, substrate concentration and different respiratory substrates on the rate of respiration.</p> <p><b>Module 6</b> – Ecosystems, populations and sustainability; predator prey relationship, conservation and management.</p>	<p>Homework – a mark, A level grade and formative feedback provided.</p> <p>Autumn Pre-mock Assessment and Mock Exams – A level grading and formative feedback given.</p>	
<p><b>Module 5 – Communication</b> between cells, temperature regulation, nerve impulses and synapses. Muscle structure and function.</p> <p><b>Module 6 – Cellular control</b>; gene mutations and control of gene expression, development of body plan and form.</p> <p><b>Patterns of inheritance</b>; monohybrid and dihybrid crosses, linkage, multiple alleles, codominance.</p>	<p>Homework – a mark, A level grade and formative feedback given</p> <p>End of topic tests and mock exams (Feb 2023) – A level grading and formative feedback given.</p>	
How can parents help at home?		
<p>Ensure all class notes are complete and homework submitted on time</p> <p>Encourage pupils to revise for tests and exams and to create revision resources such as flash cards and posters.</p> <p>Encourage pupils to actively research future University courses and careers.</p>		
Helpful further reading/discussion (including Reading and Vocabulary Lists)		
<p><b>Reading</b></p> <p>OCR revision guides</p> <p>OCR CGP Text book</p> <p>Essential Maths Skills for AS/A level Biology CGP</p> <p>Resources on Teams</p> <p><b>Websites</b></p> <p><a href="https://www.ocr.org.uk/qualifications/as-and-a-level/biology-a-h020-h420-from-2015/specification-at-a-glance/">https://www.ocr.org.uk/qualifications/as-and-a-level/biology-a-h020-h420-from-2015/specification-at-a-glance/</a></p>	<p><b>Vocabulary Lists</b></p> <p>Chemiosmosis</p> <p>Glycolysis</p> <p>Allele</p> <p>Homeobox</p> <p>Hox</p> <p>Epistasis</p> <p>Dominant</p> <p>Dihybrid</p>	<p>Codominance</p> <p>Impulse</p> <p>Action Potential</p> <p>Stimulus Threshold</p> <p>Neurotransmitter</p> <p>Restriction Enzymes</p> <p>Sarcomere</p> <p>Actin</p> <p>Myosin</p>