

## Year 13 Biology – Outline Programme of Study

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Big ideas/ topics	Module 5 Communication, homeostasis and disease	Module 5 Communication, homeostasis and disease	Module 6 – Genetics, evolution and ecosystems	Module 6 – Genetics, evolution and ecosystems	Revision	
Key Knowledge	<p>5.1.3 Neuronal communication The structure and function of the nervous system</p> <p>5.1.4 Hormonal communication How blood sugar is regulated by the pancreas and insulin. How the adrenal gland functions.</p>	<p>5.1.5 Plant and animal responses Plants and plant hormones. The structure of the brain and how muscles contract.</p> <p>5.2.1 Photosynthesis The biochemistry of photosynthesis</p> <p>5.2.2 Respiration The biochemistry of aerobic and anaerobic respiration.</p>	<p>6.1.1 Cellular control How genes are regulated and controlled.</p> <p>6.1.2 Patterns of inheritance The mechanisms of inheritance including monohybrid, dihybrid, codominance and multiple alleles.</p>	<p>6.1.3 Manipulating genomes The principles of PCR, electrophoresis and DNA fingerprinting</p> <p>6.2.1 Cloning and biotechnology Cloning plants and animals and the uses of microorganisms to produce food and drugs.</p> <p>6.3.1 Ecosystems The interactions of organisms in a ecosystem</p> <p>6.3.2 Populations and sustainability. How populations can interact and how humans interact with the natural world.</p>		

Further information and reading list
<ul style="list-style-type: none"> <li>• <a href="#">OCR Biology A</a></li> <li>• <a href="#">Text books Text book 2</a></li> <li>• <a href="https://www.physicsandmathstutor.com/biology-revision/a-level-ocr-a/">https://www.physicsandmathstutor.com/biology-revision/a-level-ocr-a/</a></li> <li>• <a href="https://www.savemyexams.co.uk/a-level/biology/ocr/17/">https://www.savemyexams.co.uk/a-level/biology/ocr/17/</a></li> <li>• </li> </ul>
Ways to support and extend student learning in this subject
<ul style="list-style-type: none"> <li>• <a href="#">Essential maths skills for Biology</a></li> <li>• <a href="#">Oxford Revise</a></li> <li>• Biological Science review – accessed through the school library.</li> <li>• <a href="#">Maths for Biology OCR resources</a></li> <li>• <a href="#">Revision checklists</a></li> <li>• </li> </ul>