

Year 11 Biology Subject Name – Outline Programme of Study

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Big ideas/ topics	Homeostasis and Response	Homeostasis and Response	Inheritance, variation and evolution / Ecology	Inheritance, variation and evolution/Ecology	Revision	
Key Knowledge	<p>The structure and function of the nervous system including the mode of action of the reflex arc.</p> <p>The structure of the brain and the eye and how the focusses and how sight defects can be corrected. (ss only)</p> <p>How body temp is monitored and controlled (ss only)</p> <p>The location of the major endocrine glands.</p> <p>How blood sugar is monitored and controlled and how diabetes is treated.</p> <p>Maintaining the water balance of the body via the kidneys. (ss only)</p>	<p>Human reproductive hormones and the control of the female menstrual cycle. How hormonal and non hormonal methods can be used for prevention pregnancy or increasing fertility.</p> <p>The roles and regulation of thyroxine and adrenaline.</p> <p>The roles and mechanisms of plant hormones including auxin, ethene and gibberellins. (ss only)</p>	<p>Sexual and asexual reproduction in plants and animals.</p> <p>Cell division by meiosis.</p> <p>The structure and function of DNA and the importance of the genome.</p> <p>Mutations and protein synthesis (ss only)</p> <p>Patterns of inheritance including the recognition of the work of Gregor Mendel.</p> <p>Inheritance of genetic disorders limited to Cystic fibrosis and Polydactyly.</p>	<p>Variation in populations.</p> <p>Selective breeding, genetic engineering and cloning in animals and plants.</p> <p>Evolution and the work of Darwin and Wallace. Speciation, fossils and extinction.</p> <p>Classification of living organisms focusing on the work of Carl Linnaeus and Carl Woese .</p> <p>Adaptations of living organisms and their interaction in the environment including biotic factors. The water and carbon cycles. Decomposition.</p> <p>Homo sapians impact on the environment. Food production and farming techniques.</p>		

Further information and reading list

- AQA [Trilogy](#) (8464) or AQA [Biology](#) (8461) specifications.
- [CGP AQA Trilogy \(8464\)](#) or [CGP AQA Biology \(8462\)](#) revision guides
- [Educake](#)
- [Focus elearning](#)
- <https://www.bbc.co.uk/bitesize/examspecs/z8xtmnbb> BBC bitesize
- [Physics maths tutor](#)
- [Savemyexams](#)
- [Freesciencelessons.co.uk](#)
- [Malmesbury Science](#)
- [Biology /Chemistry/ physics](#) textbooks
- [AQA Command words](#) [Subject specific vocabulary](#)
- <https://revisionworld.com/>
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Ways to support and extend student learning in this subject

- Use educake to reinforce key knowledge
- Pearsons target grade 5 books.
- New scientist
- Links to past papers
- Youtube sites
- Christmas lectures
- Lesson powerpoints and other resources are also put onto google classroom.

