

TRIPLE SCIENCE—BIOLOGY OVERVIEW



	Year 10		Year 11	
	<p><i>This is a new GCSE course so the order at which content is covered may be subject to change whilst the course is developed. Students will be given a variety of assessments each term to track their progress in literacy (RLITs), practical skills (RPs), application of knowledge through context questions (RCQs) and subject knowledge (EUTs). In addition they will be given a Mid-year exam (MYE) that covers the content of the year 9 course and the Autumn term units in year 10. The MYE assesses skills as well as subject knowledge and application.</i></p>			
	<p>In June students will be given an exam that assesses skills, subject knowledge and application of content covered in year 9 as well as year 10</p>		<p>In November and March students will be given a mock exam that assesses skills, subject knowledge and application of content covered in years 9 & 10 as well as year 11. The first Mock exam is used to inform predicted grades for the summer.</p>	
Term	Units	Assessments	Units	Assessments
Autumn	<p>10.1 Cell Structure & Transport</p> <p><i>Covering the differences between animal and plant cells and the process that govern transport in and out of cells.</i></p>	<p>End of Unit test (unit 10.1) Required Practical – Microscopy</p> <p>Required Practical - Osmosis</p>	<p>11.1/2 Biological Responses INCLUDES: The human nervous system covering the principles of homeostasis, the reflex arcs and synaptic transmission. Hormonal coordination covering the principles of hormonal control and the endocrine system.</p> <p><i>Triple students also cover the brain and structure and function of the eye.</i></p>	<p>End of Unit test (unit 11.1)</p> <p>Required Practical – Nervous system & Plant Tropisms</p>
	<p>10.2 Cell Division <i>Covering the process of cell division and the cell cycle. They will also study cell differentiation and stem cells.</i></p>	<p>End of Unit test (unit 10.2) Context Question – Stem Cells</p>	<p>11.3 Homeostasis in action (This module is for triple students only)</p> <p><i>Covering thermoregulation and the structure and function of the kidneys and kidney failure.</i></p>	<p>Y11 Mock paper 1 (All Year 9 & 10 material)</p> <p>Context Question – Cycle Racing</p>

Spring	10.3 Organisation and the Digestive System <i>Covering the principle of organisation. They will focus on the digestive system and enzymes.</i>	Required Practical – Food Tests Required Practical – Enzymes	11.4 Reproduction <i>Covering asexual and sexual reproduction, the role of DNA in inheritance and genetic diagrams. Triple students also cover the detailed structure of DNA and study protein synthesis.</i>	End of Unit test (unit 11.4) Literacy Task – Meiosis vs Mitosis
		End of Term test (all year 9 units, 10.1 & 10.2)		Y11 Mock paper 2 (11.1, 11.2, & Ecology from Year 9)
	10.4 Organising animals and plants Covering the organisation of animals and plants. Including a detailed investigation of the heart and respiratory system as well as the vascular systems of plants.	End of Unit test (unit 10.4) Literacy Task – Helping the heart	11.5 Variation & Evolution <i>Covering types of reproduction & the structure of DNA as well as selective breeding and the process of genetic engineering. Triple students also study cloning of animals and plants</i>	End of Unit test (unit 11.5) Context Question – Genetic Engineering
	10.5 Preventing and Treating disease Covering the prevention of disease by vaccination and how the immune system works. Students will also cover the development and effectiveness of drugs and the processes of clinical trials. Triple students will also study the production of monoclonal antibodies.	End of Unit test (unit 10.5) Literacy Task – Antibiotic Resistance	11.6 Genetics & Evolution <i>Covering variation & evolution by natural selection and survival of the fittest as well as classification. Triple students also study speciation</i>	Literacy Task – Natural Selection Context Question – Speciation.
			11.6 Biodiversity <i>Covering the effects of humans on the planet covering such topics as biodiversity, deforestation, acid rain and habitat protection.</i>	Context Question – Population Literacy Task – Deforestation.
Summer	10.6 Photosynthesis <i>Covering the study of photosynthesis and the adaptations of leaves for efficient photosynthesis.</i>	Required Practical – Photosynthesis	Revision and exam practice	
		End of Year EXAM (all year 9 units & year 10 units covered to date)		
	10.8 Respiration <i>Covering the study of respiration and giving examples of living processes that need the energy released from respiration such as metabolism.</i>	End of Unit test (unit 10.5&10.6 combined) Context Question – Growing Strawberries		