

Biology Curriculum Overview 2018-2019

	IGCSE			A Level	
	Third Form	Fourth Form	Fifth Form	Lower Sixth	Upper Sixth
Autumn Term	<p><i>From Big to Small:</i> biological molecules, cells, organisms and kingdoms</p> <p><i>Energy for life:</i> respiration</p>	<p>Ecology</p> <p>Movement of Molecules</p> <p>Diet, Digestion and Enzymes</p> <p>Excretion</p>	<p>Human Reproduction</p> <p>DNA, protein synthesis and cell division</p> <p>Patterns of Inheritance</p> <p>Applications of genetics: Natural selection, Cloning and Genetic engineering</p>	<p>Biological Molecules – carbohydrates, lipids, proteins, enzymes and DNA</p> <p>Cells – microscopy, cell structure and function, DNA replication and protein synthesis, mitosis and meiosis</p>	<p>Ecology, <i>including residential field work at Nettlecombe Court</i></p> <p>Microbiology and Immunity</p> <p>Respiration</p> <p>Photosynthesis</p>
Spring Term	<p><i>Energy for life:</i> Gas exchange in humans</p> <p>Diet and Digestion</p> <p>Circulatory System</p>	<p>Nerves and the eye</p> <p>Hormones and Homeostasis</p> <p>Immunity and Coronary Heart Disease</p>	<p>Food Production: microbial, fish farming, crop farming and selective breeding</p> <p>Carbon and Nitrogen Cycles</p> <p>Human Impacts on the environment</p>	<p>Transport: cell membranes, diffusion, osmosis, active transport circulatory system and digestion</p> <p>Classification and evolution, <i>including trip to Natural History Museum</i></p>	<p>Patterns of Inheritance, population genetics & evolution</p> <p>Modern Genetics, including stem cells and genetic modification</p> <p>Control systems: nerves, hormones & homeostasis</p>
Summer Term	<p><i>Energy for Life:</i> Photosynthesis</p> <p>Immunity and Disease</p> <p>End of Year Exams</p>	<p>Plant transport</p> <p>Cycles in Nature</p> <p>End of Year Exams</p>	<p>Revision</p> <p>IGCSE examinations</p>	<p>Oxygen and Carbon Dioxide: transport, respiration, gas exchange in animals and plants</p> <p>End of Year Exams</p>	<p>Revision</p> <p>A Level examinations</p>