



Curriculum Plans – Key Stage 4 Biology

Please find below a detailed outline of the curriculum covered in Biology through Year 10 in Key Stage 4.

Year 10

	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 7
	<p>Organisms (Unit 1)</p> <p>Characteristics and classification</p> <ul style="list-style-type: none"> • Study of life and living organisms • The variety of life • Plants • Invertebrate animals • Vertebrate animals • Organisms are made up cells • Organisation of living organisms <p>Photosynthesis and Plants</p> <ul style="list-style-type: none"> • Photosynthesis and plant nutrition • The rate of photosynthesis • Leaf structure and photosynthesis • Photosynthesis and the environment • Plants and minerals • Diffusion • Osmosis 	<p>Organisations (Unit 2)</p> <p>Food and Nutrition</p> <ul style="list-style-type: none"> • Carbohydrates, lipids and proteins • Vitamins, minerals, water and fibre • Food as the fuel that drives the processes of life • Balancing energy intake and demand • Animal nutrition • Ingestion • Digestion • Absorption and assimilation <p>Enzymes & Biological molecules</p> <ul style="list-style-type: none"> • Organic molecules • Testing for biochemicals • Enzymes in living organisms • Enzyme experiments 	<p>Organisations (Unit 2)</p> <p>Plant & Animal Circulation</p> <ul style="list-style-type: none"> • Uptake of water and minerals by roots • Transport systems in plants • Transpiration • The leaf and water loss • Transport systems in animals • The circulatory system • Capillaries • The heart • Coronary heart disease 	<p>Organisations (Unit 2)</p> <p>Health and Disease</p> <ul style="list-style-type: none"> • Pathogens • Preventing disease • Combating infection • Antibodies and the immune response • Respiration • Contraction of muscles in respiration • The measure of respiration • Gas exchange in respiration • Breathing and the lungs • Smoking and disease 	<p>Organisations (Unit 2)</p> <p>Excretion</p> <ul style="list-style-type: none"> • Waste products of metabolism • Dialysis and kidney failure <p>Homeostasis</p> <ul style="list-style-type: none"> • Maintaining a steady state • Control of body temperature <p>The Nervous System</p> <ul style="list-style-type: none"> • Coordination • Neurones • Integration by the central nervous system • Receptors and senses • The endocrine system • Drugs and disorders of the nervous system • Tropisms 	<p>Development (Unit 3)</p> <p>Reproduction in Plants and Humans</p> <ul style="list-style-type: none"> • Flowers • Pollination • Fertilisation • Germination • The menstrual cycle • Copulation and conception • Contraception • Pregnancy • Birth and the new-born baby • Sexually transmitted infections 	<p>Development (Unit 3)</p> <p>Variation and Inheritance</p> <ul style="list-style-type: none"> • DNA, proteins and the characteristic of organisms • How the code is carried • Cell division • Inheritance • Patterns of inheritance • Inherited medical conditions • Chromosomes
Assessment	End of Unit Assessment October 4 th Monday	End of Section Assessment November 1 st Monday	End of Section Assessment December 13 th Monday	End of Section Assessment	End of Unit Assessment	End of Unit Assessment	End of Unit Assessment