

## Biology Key Stage 3 Curriculum

	Autumn Term	Spring Term	Summer Term
<b>Y7</b>	<p><b>Ecology</b> Representing feeding levels Adaptations</p> <p><b>Cells</b> Plant and animal cell structures and functions Different types of specialised cells</p>	<p><b>Classification</b> Features of the five kingdoms Features of the five vertebrate groups and the invertebrate groups</p> <p><b>Reproduction</b> Human reproductive systems Pregnancy, birth and care of baby</p>	<p><b>Variation</b> Differences in features in organisms</p> <p><b>Photosynthesis</b> Adaptation of leaf Experiments with leaves The role of plants in the environment.</p>
<b>Y8</b>	<p><b>Nutrition and Digestion</b> Digestive system Use of enzymes Absorption</p> <p><b>Respiration</b> Aerobic and anaerobic respiration Structure of the lungs Ventilation</p>	<p><b>Circulation</b> Composition and role of blood Blood groups Heart function &amp; heart disease</p> <p><b>Microbes and Disease</b> Useful microbes Pathogens &amp; role of white blood cells Vaccination</p>	<p><b>Plant Reproduction</b> Flower structure and function Pollination and fertilisation Seed formation Germination</p>
<b>Y9</b>	<p><b>Classification</b> 5 classification system Taxonomy</p> <p><b>Cells</b> Cell structure and specialised cells Bones and muscle functioning</p> <p><b>Biochemistry</b> Protein, carbohydrate and lipid structure Biochemical testing</p>	<p><b>Movement in and out of cells</b> Diffusion, osmosis and active transport</p> <p><b>Enzymes</b> Lock and key hypothesis Investigating effect of different conditions on enzyme activity</p>	<p><b>Variation and Genetics</b> Species and variation Causes of endangering and extinction of organisms DNA structure and function</p>

## Biology GCSE Curriculum Overview

	Autumn Term	Spring Term	Summer Term
<b>Y10</b>	<p><b>Photosynthesis</b>            Reactants and products of photosynthesis            Limiting factors            Transpiration and translocation</p> <p><b>Plant Reproduction</b>            Sexual and asexual reproduction            Structure of a leaf            Pollination types            Fertilisation and germination</p> <p><b>Reviewing</b>            Water potential            Enzymes</p> <p><b>Biotechnology</b>            Fermenters            Use of pectinases</p>	<p><b>Biochemistry</b>            Elements within biological molecules            Testing for different biological molecules</p> <p><b>Nutrition and Digestion</b>            Different food/nutrient disorders and diseases            Mechanical and chemical digestion            Absorption            Cholera</p> <p><b>Respiration</b>            Aerobic respiration            Anaerobic respiration in humans            Anaerobic respiration in yeast</p>	<p><b>Respiration</b>            Lungs structure and function.            Ventilation            Respiratory diseases</p> <p><b>Diseases and Immunity</b>            Pathogens and transmission            Body defences and hygiene            Immunity            Vaccination</p> <p><b>Plant responses</b>            Phototropism            Gravitropism            Commercial uses of growth hormones</p>



<p><b>Y11</b></p>	<p><b>Homeostasis</b>          Temperature          Blood glucose          Adrenaline</p> <p><b>Excretion</b>          Role of liver          Role of kidney          Dialysis and transplants          Drugs</p> <p><b>Human Reproduction</b>          Reproductive systems          Hormones and conception          Development in the womb          Antenatal care          Controlling fertility          Diseases</p>	<p><b>Cell division</b>          Mitosis and meiosis          DNA          Protein synthesis          Genetic engineering</p> <p><b>Genetic inheritance</b>          Monohybrid inheritance          Codominance          Sex-linked inheritance</p> <p><b>Variation</b>          Types of variation          Mutation          Adaptive features and fitness          Artificial selection</p> <p><b>Ecology</b>          Energy flow          Cycles in nature          Pollution          Conservation and sustainability</p>	<p><b>Revision &amp; Exam Skills</b></p>
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