



Key Stage 4 Science: Biology Curriculum Plan

KS4 Curriculum Intent - Students will have the knowledge, skills and desire to understand and question the world around them

Year 10 LTP

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit covered	Cells Cell specialisation Cell differentiation Microscopy Magnification Chromosomes and mitosis Stem cells Diffusion <u>Triple</u> Communicable diseases Viral, bacterial and fungal diseases Protists Human defence Vaccinations Plant disease and defence Monoclonal antibodies Antibiotics and painkillers	Osmosis Enzyme Theory Tissues & organs. The digestive system <u>Triple</u> Homeostasis The nervous system The brain The eye	Structure and function of the lungs. Structure and function of the heart. Blood vessels The blood. Heart disease. <u>Triple</u> Communicable diseases Viral, bacterial and fungal diseases Protists Human defence Vaccinations Plant disease and defence Monoclonal antibodies Antibiotics and painkillers	Health issues. Effects of life-style. Cancer. Plant tissues, organs & systems Transpiration. Photosynthesis. Uses of glucose. Factors affecting rate of photosynthesis. Limiting factors <u>Triple</u> Homeostasis The nervous system The brain The eye	Aerobic and anaerobic respiration. Metabolism. Response to exercise. Communicable (infectious) diseases Viral diseases, Bacterial disease, Fungal diseases, Protist diseases. Human defence systems. <u>Triple</u> Communicable diseases Viral, bacterial and fungal diseases Protists Human defence Vaccinations Plant disease and defence Monoclonal antibodies Antibiotics and painkillers	Vaccinations. Antibiotics & painkillers. Development of drugs Revision <u>Triple</u> Homeostasis The nervous system The brain The eye
Assessment	1 KLT per half term 1 KAT per term	1 KLT per half term 1 KAT per term	1 KLT per half term 1 KAT per term	1 KLT per half term 1 KAT per term	1 KLT per half term 1 KAT per term	1 KLT per half term 1 KAT per term
Interleaving	KS3 threshold concepts recap where applicable	Content from Autumn 1	Content from Autumn 1/2	Content from Autumn 1/2/Spring 1	Content from Autumn 1/2/Spring 1/2	Whole year 10 content



Year 11 LTP

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit covered	Communities. Abiotic factors. Biotic factors. Distribution of organisms. Adaptations Levels of organisation- Feeding Relationships How materials are cycled. Human effects on the environment <u>Triple</u> DNA and the genome DNA structure and protein synthesis Sexual and Asexual reproduction	Maintaining diversity Homeostasis. The human nervous system. Endocrine system. Adrenaline and thyroxine <u>Triple</u> Genetic inheritance and sex determination Inherited disorders Understanding genetics- Mendel	Control of glucose concentration. Hormones in human reproduction. Contraception. Use of hormones to treat infertility. DNA and the genome. Protein synthesis. Sexual & Asexual Reproduction. Meiosis Genetic inheritance. <u>Triple</u> Evidence for evolution fossils , extinction and resistant bacteria Classification	Genetic inheritance. Sex determination Inherited disorders. Variation Evolution & evidence. Fossils. Bacterial resistance, Extinction. <u>Triple</u> Selective breeding Cloning Genetic engineering	Selective breeding. Genetic engineering Classification Working Scientifically <u>Triple</u> Working scientifically	
Assessment	1 KLT per half term 1 KAT per term	1 KLT per half term 1 KAT per term	1 KLT per half term 1 KAT per term	1 KLT per half term 1 KAT per term	1 KLT per half term 1 KAT per term	1 KLT per half term 1 KAT per term
Interleaving	Year 10 content	Content from Autumn 1	Content from Autumn 1/2	Content from Autumn 1/2/Spring 1	Content from Autumn 1/2/Spring 1/2	Whole year 10/11 content