



Year 10- Science Curriculum Plan Overview

Year 10 - GCSE New Content

Term	Topic	Learning	How can parents' best support	Key Vocabulary
Autumn 1	Cell Biology	<ul style="list-style-type: none"> Cell structure Microscopy Cell Division Cell Transport 	Grow your own vegetables or discuss plant growth and needs in the garden. Watch Gardening shows or CountryFile How does the plant get water? How does it grow a root vegetable?	Membrane, vacuole, cell wall, chloroplast, nucleus, mitochondria, ribosomes, meiosis, cloning, mitosis, tissues, organs, brain, stomach, heart, liver, intestines, eyes, ears, muscles, bones, enzymes, proteins, protease, lipase, fats, amylase, carbohydrates, minerals, vitamins, osmosis, active transport.
	Organisation	<ul style="list-style-type: none"> Level of Organisation Digestion 		
Assessment:				
Autumn 2	Infection and Disease	<ul style="list-style-type: none"> Blood and Circulation Non-Communicable Disease Transport in Plants Pathogens and Disease Human Defence against Disease Plants Disease 	Discuss healthy living, keeping fit and the long term benefits. Take part in a family physical activity that is appropriate and maintainable for your family. Discuss the importance of a healthy mental and physical health. Discuss healthy living, keeping fit and the long term benefits. Take part in a family physical activity that is appropriate and maintainable for your family. Discuss the importance of a healthy mental and physical health.	plasma, white blood cells, platelets, red blood cells, oxygen, heart disease, cancer, diabetes. Transpiration, translocation, osmosis, active transport. Virus, bacteria, fungi, protists. malaria, salmonella. influenza, covid. Tobacco mosaic virus. skin, enzymes, mucus, hair, lysozyme, hydrochloric acid, slin, sebum. Light, carbon dioxide, water, oxygen, glucose. heart rate, anaerobic, aerobic
	Photosynthesis	<ul style="list-style-type: none"> Photosynthesis Respiration and Exercise 		
Assessment:				
Spring 1	Homeostasis and response	<ul style="list-style-type: none"> Homeostasis Diabetes Hormones 	Discuss growing up and the changes hormones have on our bodies.	water balance, temperature balance, blood glucose, oestrogen, progesterone, insulin, type 1, type 2, adrenaline.
Assessment:				

Spring 2	Reproduction.	<ul style="list-style-type: none"> ● Plant Hormones ● Reproduction ● DNA-Mutations 	Watch Countryfile or Gardeners World and find out about gardening and farming techniques	auxin, hydrotropism, phototropism, geotropism, meiosis, mitosis, genetic mutation, genes, deoxyribonucleic acid, chromosomes
Assessment:	GCSE practice paper			
Summer 1	Inheritance, Variation and Evolution	<ul style="list-style-type: none"> ● Variation ● Evolution ● Speciation ● Selective Breeding 	<p>If appropriate discuss characteristics in your family and their family tree.</p> <p>Watch nature and farming documentaries to identify the whole range of diversity on planet Earth and in the UK.</p>	variation, genetic, environmental, genes, DNA, chromosomes, adaptation, survival of the fittest, sexual reproduction, asexual reproduction, cloning, genotype, phenotype, familial, traits, species
Assessment:				
Summer 2	Ecology	Adaptations Feeding the World	Watch nature programmes from different habitats and identify how animals adapt to their environment on iplayer.	species, organism, community, population, estimation, habitat, adaptation, interdependence, survival of the fittest, Lemark, Darwin, Mendel, Wallace