



Science Curriculum

Year 9/10	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Summary	The Human Body		The Human Body		Energy, Forces and the structure of matter 2	
	Digestion and enzyme action Circulatory system Respiration	Cells and levels of organisation Infectious diseases and the immune system	Medical drugs The nervous and endocrine systems Contraception	Energy resources-renewable and non-renewable Separating mixtures	Speed and stopping distances Types and effects of forces Radioactivity	Chemical bonding
	Energy, Forces and the Structure of Matter 1		Elements, Mixtures and Compounds 1		Elements, Mixture and Compounds 2	
	Energy stores and transfers Reducing unwanted energy transfers	Calculating electricity bills	Atoms and elements Chemical reactions	Compounds and mixtures	Metals and alloys	Polymers
Assessment	Part ELC paper TDA: effect of exercise on heart rate TDA: which material is the best insulator?		Full ELC paper The Human Body Part ELC paper Elements, Mixtures, Compounds TDA : which dye contains the most ink? TDA: does caffeine affect reaction time?		Full ELC papers TDA: what factors affect stopping distance? TDA: what metal is the best conductor of heat?	
Intent	Students have good knowledge of their own bodies and factors which affect their health and the health and wellbeing (including economic) of their families – effect of energy price on household bills		Students develop scientific literacy which enables them to access current debates involving scientific knowledge – debates about renewable vs non-renewable fuels, vaccination, legal and illegal drugs		Students develop scientific literacy which enables them to access current debates involving scientific knowledge, such as vaccination, climate change, sustainable growth, legalisation of drugs –	

		<p>Students have good knowledge of their own bodies and factors which affect their health and the health and wellbeing (including economic) of their families – impact of alcohol and other drugs, and tiredness, on road safety, vaccination and the immune system, how contraception works</p>	<p>environmental impact of mining for and extracting metals, use of plastics</p> <p>Students have good knowledge of their own bodies and factors which affect their health and the health and wellbeing (including economic) of their families – impact of alcohol and other drugs, and tiredness, on road safety</p>
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Year 11	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Summary	Environment, evolution and inheritance 1	Chemistry in our world 1	Environment, evolution and inheritance 2	Chemistry in our world 2	Consolidation and revision	
	Plants and photosynthesis Adaptations and feeding relationships Environmental change and pollution	Acids and metals pH and neutralization Rates of reaction	Evolution, natural and artificial selection Sexual and asexual reproduction Genetics and genetic engineering	The Earth's atmosphere Crude oil and fuels Revise polymerisation Water for drinking		
	Energy, Forces and the Structure of Matter	Electricity, magnetism and waves 1	Electricity, magnetism and waves 2	Electricity, magnetism and waves 3	Consolidation and revision	
	Energy stores and transfers Reducing unwanted energy transfers and electricity bills Energy resources	Current, potential difference and resistance a.c. and d.c. current	Wiring a plug and energy transfers in electrical appliances Magnets and electromagnets	Types of waves The wave equation The electromagnetic spectrum		
Assessment	TDA: Where do woodlice prefer to live? TDA: Which material is the best insulator?		TDA: which metals are magnetic? ELC papers 2, 4, 6 Full GCSE papers			

	<p>TDA: How can you make a chemical reaction go faster?</p> <p>ELC paper 1, 3, 5</p> <p>GCSE papers 1 and 3</p>			
Intent	<p>Students have good knowledge of their own bodies and factors which affect their health and the health and wellbeing (including economic) of their families – impact of energy prices on household bills</p> <p>Students develop scientific literacy which enables them to access current debates involving scientific knowledge - impact of pollution on the environment, impact factors affecting population of a particular species</p>	<p>Students develop scientific literacy which enables them to access current debates involving scientific knowledge, -the use and impact of crude oil, debates around genetic modification</p> <p>Students have good knowledge of their own bodies and factors which affect their health and the health and wellbeing (including economic) of their families – risks associated with ionising radiation</p>		