

Science year 9 long term plan

Week/ Lesson	Term	Topic	Knowledge	Skills	
1 2	Autumn T1	Organisms 3	<ul style="list-style-type: none"> • Prokaryotic/Eukaryotic Cells/Microscopes • Diffusion & Osmosis • Digestive systems & Enzymes 	<ul style="list-style-type: none"> • Microscope work • Magnification Calculations 	
3 4 5		Matter 3	<ul style="list-style-type: none"> • Particle Model/Sub-atomic particles • Changes of state/Pure & Mixtures • Separating Techniques • Periodic Table/Group 1 & 7/Polymers 	<ul style="list-style-type: none"> • Extended Writing – Experimental Method 	
6		Reteach Week ASSESSMENT	<ul style="list-style-type: none"> • Organisms 3/Matter 3 		
7 8		Forces 3	<ul style="list-style-type: none"> • D-t & v-t graphs/Acceleration • Balanced & Unbalanced forces • Mass & Weight/Hooke's Law 	<ul style="list-style-type: none"> • Drawing/Analysing Graphs & Calculations 	
9		Autumn T2	Genes 3	<ul style="list-style-type: none"> • Genes/Chromosomes/Genetic Crosses • Menstrual Cycle • Natural Selection & Selective Breeding 	<ul style="list-style-type: none"> • Extended Writing – Menstrual Cycle
10 11			Reteach Week ASSESSMENT	<ul style="list-style-type: none"> • Organisms 3/Matter 3/Forces 3/Genes 3 	
12	Reactions 3		<ul style="list-style-type: none"> • Equations & Formulae • Properties of metals & non-metals • Reactivity series/Displacement reactions. • Neutralisation & Salts • Combustion/Exo & Endothermic 	<ul style="list-style-type: none"> • Practical Skills – Collecting data (Tables) • Balancing Equations – Ratios 	
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16	Spring T1	Energy 3	<ul style="list-style-type: none"> • Power/Energy/Energy Stores • Heating & Cooling/Specific Heat Capacity • Dissipation of Energy/Energy efficiency 	<ul style="list-style-type: none"> • Evaluate – Renewable Energy resources • Calculations – Multi-step
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19		Reteach Week ASSESSMENT	<ul style="list-style-type: none"> • Organisms 3/Matter 3/Forces 3/Genes 3/Reactions 3/Energy 3 	
20	Spring T2	Ecosystems 3	<ul style="list-style-type: none"> • Pyramids/Bioaccumulation/Predator-prey relationships/Adaptations • Respiration/Fermentation • Photosynthesis/Leaf Structure/Diffusion & Osmosis/Xylem & Phloem 	<ul style="list-style-type: none"> • Graphs – Describing trends
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24		Earth 3	<ul style="list-style-type: none"> • Atmosphere/Carbon cycle/Greenhouse gases & Global Warming • Deforestation • Atmospheric pollutants • Extraction of Metals/Bioleaching & Phytomining 	<ul style="list-style-type: none"> • Extended writing – Evaluate Bioleaching & Phytomining
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25		Reteach Week ASSESSMENT	<ul style="list-style-type: none"> • Organisms 3/Matter 3/Forces 3/Genes 3/Reactions 3/Energy 3/Ecosystems 3/Earth 3 	
26	Summer T1	Waves 3	<ul style="list-style-type: none"> • Wavelength & Frequency • Longitudinal & Transverse • Reflection/Refraction/Diffraction 	<ul style="list-style-type: none"> • Calculations – Wave properties • Practical Skills – Angle measurements
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28		Electromagnets 3	<ul style="list-style-type: none"> • Current/p.d/Resistance/I-V Graphs • Series & Parallel • Transformers/Static/Electromagnets 	<ul style="list-style-type: none"> • Practicals – Building Circuits and taking measurements. • Calculations & Rearranging Formulae
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32		Reteach Week ASSESSMENT	<ul style="list-style-type: none"> • Organisms 3/Matter 3/Forces 3/Genes 3/Reactions 3/Energy 3/Ecosystems 3/Earth 3/Waves 3/Electromagnets 3 	
33	Summer T2			
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