

Science Year 7 long term plan

Week/ Lesson	Term	Topic	Knowledge	Skills Complex activity: Writing genre:	
1 2	Autumn T1	Practical Skills	<ul style="list-style-type: none"> • Safety Rules and Hazard Symbols • Naming and using scientific equipment • Data analysis 	Extended writing- Writing up an investigation Numerical skills - Drawing graphs	
3 4 5 6		Organisms 1	<ul style="list-style-type: none"> • Organisation of organisms • Animal and plant cells and their uses • Specialised cells and cell division • Skeleton- structure and function 	Extended writing- Writing up an investigation on muscle strength	
7		Reteach week and ASSESSMENT	<ul style="list-style-type: none"> • Practical skills and Organisms • Assessment on Practical skills 	Assessment task	
8		Practical skills	<ul style="list-style-type: none"> • Research task – effects of drugs on the human body and the organs they affect 	Research task- Effects of smoking on the human body	
9 10 11 12		Autumn T2	Matter 1	<ul style="list-style-type: none"> • Introduction to states of matter • The Particle model - solids, liquids and gases • Energy changes • Separating mixtures • Describe solutions – solute and solvent • Making solutions and solubility curves 	Numerical skills - Interpreting graphs Extended writing - Writing up an investigation on separating techniques

13		Reteach week	<ul style="list-style-type: none"> • Practical skills and Organisms 1, Matter 1 	Assessment task
14		Forces 1	<ul style="list-style-type: none"> • Different types of forces • Graphs used in forces • Gravity 	<p>Numerical skills - Interpreting distance/time and velocity /time graphs.</p> <p>Literacy task- complete a newspaper article explaining how speed cameras work</p>
15		ASSESSMENT	<ul style="list-style-type: none"> • Practical Skills, Organisms 1, Matter 1, Forces 1 	Assessment week in school
16	Spring T1	Genes 1	<ul style="list-style-type: none"> • Variation causes – genetic or environmental • Male and female reproductive systems • Fertilisation and implantation • Development of the foetus and effects of smoking • Menstrual cycle including contraception 	Research skills - Changes in puberty and adolescence
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19	Spring T2	Reactions 1	<ul style="list-style-type: none"> • Periodic table, Reactivity series • Acids and alkalis, indicators and pH scale • Neutralisation • Making salts – planning investigation • Reaction of metals and acids, oxygen, water 	Extended writing - Application on the use of acids and alkalis in everyday life.
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22		Reteach Week and ASSESSMENT	<ul style="list-style-type: none"> • Practical Skills, Organisms 1, Matter 1, Forces1, Genes 1, Reactions 1 	Assessment task

			<ul style="list-style-type: none"> • Use memory retrieval sheets to revisit and recap prior learning 	
23		Energy 1	<ul style="list-style-type: none"> • Daily energy intake – foods and people • Energy resources, transfers, diagrams • Cost of energy in the home • Conservation of energy, Dissipation • Uses of different types of energy 	<p>Numeracy task: Calculating the cost of an electricity bill.</p> <p>Extended writing- Energy Investigation</p>
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26		ASSESSMENT	<ul style="list-style-type: none"> • Practical Skills, Organism 1, Matter 1, Forces 1, Reactions 1, Energy 1 	Assessment week
27	Summer T1	Interdependence 1	<ul style="list-style-type: none"> • Food chains and food webs • Ecosystems, habitats, community, niche • Interdependence and bioaccumulation • Predator-prey cycle • Flower parts, pollination, Fertilisation germination; Seed dispersal 	<p>Comprehension task: The effects of pesticides of the numbers of animals in a habitat</p> <p>Research task: Growth of a plant</p>
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30		Earth 1	<ul style="list-style-type: none"> • The structure of the Earth • Sedimentary rocks • Igneous rocks • Metamorphic rocks • Rock cycle • Describe stars and galaxies • Relative motion of the Earth • Phases of the moon 	Numeracy task- Solar Systems Data
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			<ul style="list-style-type: none"> • Evaluation of models in science 	
32		Reteach Week	<ul style="list-style-type: none"> • Practical Skills, Organisms 1, Matter 1, Forces 1, Reactions 1, Energy 1, Interdependence 1, Earth 1 	Assessment Week
		ASSESSMENT		
33	Summer T2	Waves 1	<ul style="list-style-type: none"> • Sound waves, speed of sound • Sound waves properties • How the ear works; Hearing. • Properties of light waves, shadows • Exploring reflection, refraction. • Exploring how the eye works; coloured light 	Numeracy task - Data analysis
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36		Reteach Week	<ul style="list-style-type: none"> • Practical Skills, Organism 1, Matter 1, Forces 1, Reactions 1, Energy 1, Interdependence 1, Earth 1 , Waves 1 	Assessment task
37		Electromagnets	<ul style="list-style-type: none"> • Introduction to electricity • Practical electrical conductors and insulators • Measuring potential difference, resistance • Series and parallel circuits • Measuring current in circuits • Static electricity 	Extended writing - Investigating Ohms Law
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39		ASSESSMENT	<ul style="list-style-type: none"> • Practical Skills, Organisms 1, Matter 1, Forces 1, Reactions 1, Energy 1, Interdependence 1, 	Assessment week in school

			Earth 1, Waves 1, Electromagnets 1	
40		End of term	<ul style="list-style-type: none">• School activities	