

Lower KS2 - Progression of Science Skills

Year A	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<i>My Place in the World</i> Light	<i>Mysteries of the Maya</i> Electricity	<i>Extreme Earth</i> States of Matter and Sound		<i>Building Britain</i> Forces and Magnets	
Global Goals	9 – technology (electricity and appliances)					
SIAMS	Strand 2a - meeting needs of pupils through curriculum 2b – spiritual development			Strand 2a - meeting needs of pupils through curriculum 3b – Ask big questions		3b – Ask big questions
Working scientifically	<ul style="list-style-type: none"> Asking relevant questions and using different types of scientific enquiries to answer them Setting up simple practical enquiries, comparative and fair tests Making systematic and careful observations and taking accurate measurements using standard units Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions Identifying differences, similarities or changes related to simple scientific ideas and processes Using straightforward scientific evidence to answer questions or to support their findings 					
Living things and their habitats						
Animals, including humans, evolution and inheritance (Y6)						
Properties and changes in materials				States of matter To compare and group materials together, according to whether they are solids, liquids or gases. To observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) To identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature		
Earth and space						
Forces						To compare how things move on different surfaces To notice that some forces need contact between 2 objects, but magnetic forces can act at a distance To observe how magnets attract or repel each other and attract some materials and not others To compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials To describe magnets as having 2 poles To predict whether 2 magnets will attract or repel each other, depending on which poles are facing
Sound			To identify how sounds are made, associating some of them with something vibrating. To recognise that vibrations from sounds travel through a medium to the ear. To find patterns between the pitch of a sound and features of the object that produced it. To find patterns between the volume of a sound and the strength of the vibrations that produced it. To recognise that sounds get fainter			

		as the distance from the sound source increases.		
Light	<p>To recognise that they need light in order to see things and that dark is the absence of light.</p> <p>To notice that light is reflected from surfaces.</p> <p>To recognise that light from the sun can be dangerous and that there are ways to protect their eyes.</p> <p>To recognise that shadows are formed when the light from a light source is blocked by a solid object.</p> <p>To find patterns in the way that the size of shadows change.</p>			
Electricity	<p>To identify common appliances that run on electricity.</p> <p>To construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p> <p>To identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.</p> <p>To recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</p> <p>To recognise some common conductors and insulators, and associate metals with being good conductors.</p>			

Year B	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<i>Global Warriors</i> <i>Living and their Habitats</i> <i>Plants</i>		<i>Land of the Pharaohs</i> <i>Animals including humans</i>		<i>From Stone to Steel</i> <i>Rocks and Minerals</i>	
Working scientifically	<ul style="list-style-type: none"> Asking relevant questions and using different types of scientific enquiries to answer them Setting up simple practical enquiries, comparative and fair tests Making systematic and careful observations and taking accurate measurements using standard units Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions Identifying differences, similarities or changes related to simple scientific ideas and processes Using straightforward scientific evidence to answer questions or to support their findings 					
Global Goals			3 – Good Health and Wellbeing		15 – Life on Land	
SIAMS	Strand 2a - meeting needs of pupils through curriculum 5b – Celebrating difference and diversity		Strand 2a - meeting needs of pupils through curriculum Strand 5c – Health and Relationships		Strand 2a - meeting needs of pupils through curriculum Strand 2b – Spiritual development	
Plants					<p>To identify and describe the functions of different parts of flowering plants—roots, stem / trunk, leaves and flowers.</p> <p>To investigate the way in which water is transported within plants.</p> <p>To explore the part that flowers play in the life cycle of flowering plants including pollination, seed formation and seed dispersal.</p>	
Living things and their habitats					<p>To recognise that living things can be grouped in a variety of ways.</p> <p>To explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</p> <p>To recognise that environments can change and that this can sometimes pose dangers to living things</p>	
Animals, including humans,			<p>To identify that humans need the right types and amount of nutrition and that they cannot make their own food; they get nutrition from what they eat.</p> <p>To identify that humans have skeletons and muscles for support, protection and movement.</p> <p>To describe the simple functions of the basic parts of the digestive system in humans.</p> <p>To identify the different types of teeth in humans and their simple functions.</p>			
Properties and changes in materials						
Earth and space						
Forces						
Rocks	<p>To compare and group together different kinds of rocks based on their appearance and simple physical properties.</p> <p>To describe in simple terms how fossils are formed when things that have lived are trapped within rocks.</p> <p>To recognise that soils are made from rocks and organic matter.</p>					
Light						

Electricity			
Enrichment opportunities			