

Long-Term Plan: Science

Year: 4	Subject: Science		Autumn Term (13 weeks 2 days)		Spring Term (9 weeks 4 days)		Summer Term (9 weeks 4 days)					
			Autumn 1 (7 weeks 4 days)	Autumn 2 (5 weeks 3 days)	Spring 1 (4 weeks 4 days)	Spring 2 (5 weeks)	Summer 1 (4 weeks 2 days)	Summer 2 (5 weeks 2 days)				
National Curriculum Subject Content:	Electricity		States of Matter		Sound		Living Things and Their Habitats		Animals Including Humans		Living Things and Their Habitats	
Learning Outcomes Students will be taught to:	<p>(i) Identify common appliances that run on electricity.</p> <p>(ii) Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p> <p>(iii) 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>(iv) 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>(v) Recognise some common conductors and insulators, and associate</p>		<p>(i) Compare and group materials together, according to whether they are solids, liquids or gases.</p> <p>(ii) 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).</p> <p>(iii) Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>		<p>(i) Identify how sounds are made, associating some of them with something vibrating.</p> <p>(ii) Recognise that vibrations from sounds travel through a medium to the ear.</p> <p>(iii) Find patterns between the pitch of a sound and features of the object that produced it.</p> <p>(iv) Find patterns between the volume of a sound and the strength of the vibrations that produced it.</p> <p>(v) Recognise that sounds get fainter as the distance from the</p>		<p>(i) Recognise that living things can be grouped in a variety of ways.</p> <p>(ii) Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</p> <p>(iii) Recognise that environments can change and that this can sometimes pose dangers to living things.</p>		<p>(i) Describe the simple functions of the basic parts of the digestive system in humans.</p> <p>(ii) Identify the different types of teeth in humans and their simple functions.</p> <p>(iii) Construct and interpret a variety of food chains, identifying producers, predators and prey.</p>		<p>(i) Recognise that living things can be grouped in a variety of ways.</p> <p>(ii) Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</p> <p>(iii) Recognise that environments can change and that this can sometimes pose dangers to living things.</p>	

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Working Scientifically Skills:	metals with being good conductors.		sound source increases.			
	<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, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers 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. 					
Scientific Topic Area	<i>'It's Electric'</i>	<i>'States of Matter Scientists'</i>	<i>'Listen Up'</i>	<i>'Name that Living Thing!'</i>	<i>'Are these your teeth?'</i>	<i>'Help Our Habitats!'</i>
Literature Links	<p><u>Core Text:</u> NA</p> <p><u>Guided Reading Text:</u> NA</p> <p><u>Complementary Texts:</u> 1.Cool circuits and wicked wires <i>Susan Martineau</i></p> <p>2.Charging about - the story of electricity <i>Jacqui Bailey</i></p> <p>3.See inside energy <i>Alice James</i></p> <p>4.Find out: Energy! <i>DK</i></p> <p>5.Inventor Lab <i>DK</i></p>	<p><u>Core Text:</u> NA</p> <p><u>Guided Reading Text:</u> NA</p> <p><u>Complementary Texts:</u> 1.Solids, Liquids, Gases and Plasma <i>David.A.Adler</i></p> <p>2.Change it:Solids, Liquids, Gases and You <i>Adrienne Mason</i></p> <p>3.Jo-Jo the wizard brews up solids, liquids and gases <i>Eric Braune</i></p> <p>4. Quantum Physics for smart kids <i>Carlos Pazos</i></p>	<p><u>Core Text:</u> NA</p> <p><u>Guided Reading Text:</u> NA</p> <p><u>Complementary Texts:</u> 1.What are sound waves? <i>Robin Johnson</i></p> <p>2.Sound Science Experiment <i>Johnston Keith</i></p> <p>3.Sound waves and communication <i>Jenna Winterberg</i></p> <p>4. Clang! <i>Darcy Patterson</i></p> <p>5.How does sound change? <i>Robin Johnson</i></p>	<p><u>Core Text:</u> NA</p> <p><u>Guided Reading Text:</u> NA</p> <p><u>Complementary Texts:</u> 1.Migration: Incredible animal journeys <i>Mike Unwin</i></p> <p>2. Science Squad <i>Robin Winston</i></p> <p>3.Incredible Invertebrates <i>Debra J.Housel</i></p> <p>4.Classifying animals into vertebrates and invertebrates <i>Baby Professor</i></p> <p>5.The topic of backbone <i>Baby Professor</i></p>	<p><u>Core Text:</u> NA</p> <p><u>Guided Reading Text:</u> NA</p> <p><u>Complementary Texts:</u> 1.The Tooth Book <i>Mark Bacera</i></p> <p>2.Take a closer look at your teeth <i>Jenny Vanvoorst</i></p> <p>3.What do they do? Dentists <i>Gaetano Capici</i></p> <p>4.Tooth Traditions around the world <i>Ann Malaspina</i></p>	<p><u>Core Text:</u> Fly Eagle Fly <i>Christopher Gregorowski</i></p> <p><u>Guided Reading Text:</u> NA</p> <p><u>Complementary Texts:</u> 1.Tree of Life <i>Rochelle Strauss</i></p> <p>2. I love this tree <i>Anna Claybourne</i></p> <p>3.The Ugly Five <i>Julia Donaldson</i></p> <p>4.Animal Architects <i>Daniel Nassar</i></p>

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		<p>5.Solids, liquids and gases - Investigate <i>Ruth Owen</i></p> <p>6. Many kinds of matter <i>Jennifer Boothroyd</i></p> <p>7.Awesome matter and materials <i>John Richards</i></p>		<p>6.Invertebrates <i>ANgela Royston</i></p>		
Assessment	Rising Stars End of Topic Assessment					
Enrichment	TBD	TBD	TBD	TBD	TBD	TBD