

Long-Term Plan: Science

Year: 6	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:	Light	Electricity	Living Things and Their Habitats	Evolution and Inheritance	Animals Including Humans	Second Look Science
Learning Outcomes Students will be taught to:	<p>(i) Recognise that light appears to travel in straight lines.</p> <p>(ii) Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.</p> <p>(iii) Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.</p> <p>(iv) Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>	<p>(i) Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</p> <p>(ii) Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.</p> <p>(iii) Use recognised symbols when representing a simple circuit in a diagram.</p>	<p>(i) Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals.</p> <p>(ii) Give reasons for classifying plants and animals based on specific characteristics.</p>	<p>(i) Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</p> <p>(ii) Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p> <p>(iii) Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>	<p>(i) Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</p> <p>(ii) Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</p> <p>(iii) Describe the ways in which nutrients and water are transported within animals, including humans.</p>	<p>(i) Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals.</p> <p>(ii) Compare and group together everyday materials on the basis of their properties</p> <p>(iii) Give reasons, based on evidence from comparative and fair tests, for the uses of everyday materials, including metal, wood and plastic</p> <p>(iv) Explain that unsupported objects fall towards Earth because of the force of gravity acting between Earth and the object</p>

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Working Scientifically Skills:						<p>(v) Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>(vi) Recognise that some mechanisms allow a smaller force to have a greater effect</p> <p>(vii) Recognise the impact of diet, exercise, drugs and lifestyle on the way the body functions</p> <p>(viii) Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</p>
	<ul style="list-style-type: none"> ● planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary ● taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate ● recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs ● using test results to make predictions to set up further comparative and fair tests ● reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations ● identifying scientific evidence that has been used to support or refute ideas or arguments 					
Scientific Topic Area	<i>'Crime Lab Investigation'</i>	<i>'Electric Celebrations'</i>	<i>'Classification Connaisseurs'</i>	<i>'The Game of Survival'</i>	<i>'The Art of Being Human'</i>	<i>'The Science of Sport'</i>
Literature Links	<p><u>Core Text:</u> NA</p> <p><u>Guided Reading Text:</u> NA</p> <p><u>Complementary Texts:</u> 1.Lewis Latimer - Engineering Wizard <i>Denise Lewis Patrick</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 electrical circuits? <i>Ronald Monroe</i></p>	<p><u>Core Text:</u> NA</p> <p><u>Guided Reading Text:</u> NA</p> <p><u>Complementary Texts:</u> 1.The Beginners Guide to life on Earth <i>Gill Arbutnott</i></p>	<p><u>Core Text:</u> NA</p> <p><u>Guided Reading Text:</u> NA</p> <p><u>Complementary Texts:</u> 1.When we become humans: Our incredible evolutionary journey</p>	<p><u>Core Text:</u> NA</p> <p><u>Guided Reading Text:</u> NA</p> <p><u>Complementary Texts:</u> 1.The Human Body <i>Nichola Tyrell</i></p>	<p><u>Core Text:</u> NA</p> <p><u>Guided Reading Text:</u> NA</p> <p><u>Complementary Texts:</u> 1.Brain Fizzling Facts <i>Emily Grossman</i></p>

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	<p>2.You are Light <i>Aaron Becker</i></p> <p>3.Science Lab <i>DK</i></p>	<p>2.Electrical Engineering and the science of circuits <i>James Bow</i></p> <p>3.Horrible Science: Shocking Electricity <i>Nick Arnold</i></p>	<p>2.The Five Kingdom System <i>Baby Professor</i></p> <p>3.Classifying Living Things <i>Gareth Stevens</i></p> <p>4.Plant Structure and classification <i>Joseph Midthun</i></p> <p>5.The variety of life <i>Nicola Davies</i></p>	<p><i>Michael Bright</i></p> <p>2.Amazing Evolution <i>Anna Claybourne</i></p> <p>3.One Smart Fish <i>Christopher Wormell</i></p> <p>4.Animalium <i>Jenny Broom</i></p> <p>5.The DNA book - discover what makes you you <i>DK</i></p>	<p>2.Knowledge Encyclopedia <i>DK</i></p> <p>3.Kay's Marvelous Medicine <i>Adam Kay</i></p> <p>4.Anatomicum <i>Kate Widerman</i></p> <p>5.Illuminatamy <i>Kate Davies</i></p> <p>6.Human Body Odyssey <i>Dominic Walliman</i></p> <p>7.Gut Garden <i>Katie Brosnan</i></p>	<p>2.Scientists <i>DK</i></p> <p>3.Periodic Table <i>DK</i></p> <p>4.Groundbreaking Scientists <i>J.P.Miller</i></p> <p>5.Climate Action <i>Georgina Stevens</i></p>
Assessment	Rising Stars End of Topic Assessment					
Enrichment	TBD	TBD	TBD	TBD	TBD	TBD