

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)	
National Curriculum Subject Content:	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)
Learning Outcomes	Light	Electricity	Living Things and Their Habitats	Evolution and Inheritance	Animals Including Humans	Second Look Science
Students will be taught to:	<ul style="list-style-type: none"> (i) Recognise that light appears to travel in straight lines. (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. (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. (iv) Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. 	<ul style="list-style-type: none"> (i) Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. (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. (iii) Use recognised symbols when representing a simple circuit in a diagram. 	<ul style="list-style-type: none"> (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. (ii) Give reasons for classifying plants and animals based on specific characteristics. 	<ul style="list-style-type: none"> (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. (ii) Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. (iii) Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. 	<ul style="list-style-type: none"> (i) Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. (ii) Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. (iii) Describe the ways in which nutrients and water are transported within animals, including humans. 	<ul style="list-style-type: none"> (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. (ii) Compare and group together everyday materials on the basis of their properties (iii) Give reasons, based on evidence from comparative and fair tests, for the uses of everyday materials, including metal, wood and plastic (iv) Explain that unsupported objects fall towards Earth because of the force of gravity acting between Earth and the object

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Working Scientifically Skills:	<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	'Crime Lab Investigation'	'Electric Celebrations'	'Classification Connaisseurs'	'The Game of Survival'	'The Art of Being Human'	'The Science of Sport'
Literature Links	<u>Core Text:</u> NA <u>Guided Reading Text:</u> NA <u>Complementary Texts:</u> 1.Lewis Latimer - Engineering Wizard Denise Lewis Patrick	<u>Core Text:</u> NA <u>Guided Reading Text:</u> NA <u>Complementary Texts:</u> 1.What are electrical circuits? Ronald Monroe	<u>Core Text:</u> NA <u>Guided Reading Text:</u> NA <u>Complementary Texts:</u> 1.The Beginners Guide to life on Earth Gill Arbuthnott	<u>Core Text:</u> NA <u>Guided Reading Text:</u> NA <u>Complementary Texts:</u> 1.When we become humans: Our incredible evolutionary journey	<u>Core Text:</u> NA <u>Guided Reading Text:</u> NA <u>Complementary Texts:</u> 1.The Human Body Nichola Tyrell	<u>Core Text:</u> NA <u>Guided Reading Text:</u> NA <u>Complementary Texts:</u> 1.Brain Fizziling Facts Emily Grossman

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