

## **KS1 Cycle A**

Cycle A	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit (Substantive knowledge)	<b>Living things and their habitats</b>  <b>Plants year 1</b>		<b>Animals including humans – (year 2)</b>		<b>Plants – year 1</b>  <b>Revisit habitats from autumn 1</b>	<b>Continue plants + Everyday Materials</b>
Topics taught throughout the year	<p>Plants - I know how to identify and name a variety of common wild and garden plants, including deciduous and evergreen trees I know how to identify and describe the basic structure of a variety of common flowering plants, including trees</p> <p>Seasonal Change – Children should learn about the different seasons, day length and weather around the world throughout the year.</p>					
Working Scientifically (disciplinary Knowledge)	<p><b><u>Working scientifically</u></b> During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>● asking simple questions and recognising that they can be answered in different ways</li> <li>● observing closely, using simple equipment</li> <li>● performing simple tests</li> <li>● identifying and classifying</li> <li>● using their observations and ideas to suggest answers to questions</li> <li>● gathering and recording data to help in answering questions</li> </ul>					

## KS1 Cycle B

Cycle B	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<b>Animals including humans - year 1</b>	<b>Complete Animals including humans – year 1</b>  <b>Seasonal change</b> - The seasons	<b>Uses of everyday materials</b>	<b>Seasonal change</b> - Day length - Weather around the world  <b>Plants – year 2</b> <i>Including year 1 content - Identify and describe the basic structure of a variety of common flowering plants, including trees.</i>	<b>Continue plants</b>	<b>Seasonal change</b> - Weather review
Topics taught throughout the year	<b>Seasonal change – taught across the year to allow for observations of different seasons.</b>					
Working scientifically (disciplinary knowledge)	<p><b><u>Working scientifically</u></b></p> <p>During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>● asking simple questions and recognising that they can be answered in different ways</li> <li>● observing closely, using simple equipment</li> <li>● performing simple tests</li> <li>● identifying and classifying</li> <li>● using their observations and ideas to suggest answers to questions</li> <li>● gathering and recording data to help in answering questions</li> </ul>					

## LKS2 Cycle A

Cycle A	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<b>Living things and their habitats</b> (recap seasonal changes Y1+2)	<b>Electricity</b>	<b>States of matter</b> (recap materials from year 1+2) Revisit habitats from autumn 1		<b>Sound</b> (recap states of matter and uses of materials)	<b>Forces and magnets</b> (recap materials) Revisit habitats from autumn 1
Working Scientifically (disciplinary Knowledge)	<p><b><u>Working Scientifically</u></b></p> <p>During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>● asking relevant questions and using different types of scientific enquiries to answer them</li> <li>● setting up simple practical enquiries, comparative and fair tests</li> <li>● making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li> <li>● gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</li> <li>● recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</li> <li>● reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> <li>● using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> <li>● identifying differences, similarities or changes related to simple scientific ideas and processes</li> <li>● using straightforward scientific evidence to answer questions or to support their findings.</li> </ul>					

## LKS2 Cycle B

Cycle B	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Plants year 3		Rocks year 3 Link to previous plants learning when possible	Light year 3 Link to previous plants learning when possible	Animals including humans year 3 (recap y1+2 animals including humans)	Animals including humans year 4
Working Scientifically (disciplinary Knowledge)	<p><b><u>Working Scientifically</u></b></p> <p>During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>● asking relevant questions and using different types of scientific enquiries to answer them</li> <li>● setting up simple practical enquiries, comparative and fair tests</li> <li>● making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li> <li>● gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</li> <li>● recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</li> <li>● reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> <li>● using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> <li>● identifying differences, similarities or changes related to simple scientific ideas and processes</li> <li>● using straightforward scientific evidence to answer questions or to support their findings.</li> </ul>					

## UKS2 Cycle A

Cycle A	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Living things and their habitats year 5 (recap Y1,2,3,4 LTATH)	Living things and their habitats year 6 (refer back to year 5 content)	Earth and Space (recap Y3/4 light)	Light (recap Y3/4 light)  SATS prep	Evolution and inheritance (Recap ks1 living things and their habitats and Y3 fossils and rocks)	Forces (Recap -Earth and space and y3/4 forces and magnets)
Working Scientifically (disciplinary Knowledge)	<p><b><u>Working scientifically</u></b></p> <p>During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>● planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>● taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li> <li>● recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</li> <li>● using test results to make predictions to set up further comparative and fair tests</li> <li>● 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</li> <li>● identifying scientific evidence that has been used to support or refute ideas or arguments</li> </ul>					

## UKS2 Cycle B

Cycle B	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<p><b>Changes of materials</b> (Recap LKS2 states of matter)</p> <ul style="list-style-type: none"> <li>• Burning</li> <li>• Acid and bicarbonate of soda</li> <li>• Dissolving mixtures and changes of state</li> <li>• Separation by filtration and sieving</li> <li>• Separation by evaporation</li> </ul>	<p><b>Properties of materials</b> (Recap KS1 everyday materials and uses of everyday materials)</p> <ul style="list-style-type: none"> <li>• Hardness</li> <li>• Transparency and magnetism</li> <li>• Thermal and electrical conductivity</li> </ul>	<p><b>Electricity</b> (Recap year 3 electricity)</p>		<p><b>Animals including humans year 5</b> (recap ks1 + Lks2 animals including humans) *Animals, including humans This topic contains important information about puberty which should be delivered in Year 5. This aspect should be taught to the Year 5 pupils as part of Physical Health and Mental Wellbeing, outside of the science two-year cycle for the phase. This should take place before pupils are taught the Year 5 Animals, including humans topic.</p>	<p><b>Animals including humans year 6</b></p>
Working Scientifically (disciplinary Knowledge)	<p><b><u>Working scientifically</u></b> During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>• planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>• taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li> <li>• recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</li> <li>• using test results to make predictions to set up further comparative and fair tests</li> <li>• 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</li> <li>• identifying scientific evidence that has been used to support or refute ideas or arguments</li> </ul>					

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