



St. Paul's Catholic Primary School
Science– Cycle B
Progression of Skills and Knowledge KS1 & KS2

Year Group	<i>Autumn</i>		
	Unit	Skills	Knowledge
1 & 2	Seasonal Change Aut/Wint	Identifying, classifying, recording and presenting data	Gather and record data to help in answering questions
	Uses of Everyday Materials	Identifying, classifying, recording and presenting data	Identify and classify Gather and recording data to help in answering questions
<i>Spring</i>			
1 & 2	Living Things and Their Habitats	Asking questions and carrying out fair and comparative tests	Ask simple questions and recognise that they can be answered in different ways Identify and classify Use their observations and ideas to suggest answers to questions



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		<p>Observing and measuring changes</p> <p>Identifying, classifying, recording and presenting data</p>	<p>Gather and recording data to help in answering questions</p> <p>Explore and compare the differences between things that are living, dead, and things that have never been alive</p> <p>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p> <p>Identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food</p>
	Plants	<p>Asking questions and carrying out fair and comparative tests</p> <p>Observing and measuring changes</p>	<p>Observe closely, using simple equipment</p> <p>Perform simple tests</p> <p>Use their observations and ideas to suggest answers to questions</p> <p>Gather and recording data to help in answering questions</p>



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		Identifying, classifying, recording and presenting data	
Summer			
1 & 2	Animals Including Humans	Asking questions and carrying out fair and comparative tests Observing and measuring changes Identifying, classifying, recording and presenting data	Ask simple questions and recognise that they can be answered in different ways Observe closely, using simple equipment Perform simple tests Identify and classify Use their observations and ideas to suggest answers to questions Gather and recording data to help in answering questions
	Scientists and	Observing and measuring	Observe closely, using simple equipment



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	Inventors	changes Identifying, classifying, recording and presenting data	Use their observations and ideas to suggest answers to questions Gather and recording data to help in answering questions
Year Group			
3 & 4	Animals Including Humans	<p>Asking Questions and Carrying Out Fair and Comparative Tests</p> <p>Using Scientific Evidence and Secondary</p> <p>Sources of Information</p> <p>Drawing Conclusions, Noticing Patterns and</p>	<p>Ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>Use straightforward scientific evidence to answer questions or to support findings.</p> <p>Set up simple practical enquiries and comparative and fair tests.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p>



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		<p>Presenting Findings</p> <p>Identifying, Classifying, Recording and Presenting Data</p>	
	<p>Living things and their habitats</p>	<p>Asking Questions and Carrying Out Fair and Comparative Tests</p> <p>Identifying, Classifying, Recording and Presenting Data</p> <p>Observing and Measuring Changes</p> <p>Make systematic and careful observations and, where appropriate, take accurate</p>	<p>Ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Make systematic and careful observations.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</p> <p>Gather, record, classify and present data to help answer questions.</p>



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		<p>measurements using standard units, using a range of equipment, including thermometers and data logger.</p> <p>Use straightforward scientific evidence to answer questions or to support findings.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p>	
	<i>Spring</i>		
States of Matter	<p>Observing and Measuring Changes</p> <p>Drawing Conclusions, Noticing</p>	<p>Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p>	



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		<p>Patterns and Presenting Findings</p> <p>Using Scientific Evidence and Secondary Sources of Information</p>	<p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Using straightforward scientific evidence to answer questions or to support findings.</p> <p>Record findings using simple scientific language, drawings and labelled diagrams.</p>
	Scientists & Inventors		
<i>Summer</i>			



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	Electricity	<p>Asking Questions and Carrying Out Fair and Comparative Tests</p> <p>Using Scientific Evidence and Secondary Sources of Information</p> <p>Drawing Conclusions, Noticing Patterns and Presenting Findings</p>	<p>Ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p>
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	Sound	<p>Asking Questions and Carrying Out Fair and Comparative Tests</p> <p>Using Scientific Evidence and Secondary Sources of Information</p> <p>Identifying, Classifying, Recording and Presenting Data</p>	<p>Ask relevant questions and use different types of scientific enquiries to answer them.</p> <p>Use straightforward scientific evidence to answer questions or to support their findings.</p> <p>Set up simple practical enquiries and comparative and fair tests.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Identif</p>
Year Group	Autumn		
5 & 6	Electricity (Y6)	<p>Asking questions and carrying out fair and comparative tests</p> <p>Identifying, classifying, recording and presenting data</p> <p>Drawing conclusions, noticing</p>	<ul style="list-style-type: none"> ● plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary ● record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs



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		<p>patterns and presenting findings</p> <p>Using scientific evidence and secondary sources of enquiry</p>	<ul style="list-style-type: none"> ● report and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations ● identify scientific evidence that has been used to support or refute ideas or arguments ● associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit ● 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 ● use recognised symbols when representing a simple circuit in a diagram
	Light (Y6)	<p>Identifying, classifying, recording and presenting data</p> <p>Drawing conclusions, noticing patterns and presenting findings</p> <p>Using scientific evidence and secondary sources of enquiry</p>	<ul style="list-style-type: none"> ● record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs ● report and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations ● identify scientific evidence that has been used to support or refute ideas or arguments ● recognise that light appears to travel in straight lines ● 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 ● explain that we see things because light travels from light sources to



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			<p>our eyes or from light sources to objects and then to our eyes</p> <ul style="list-style-type: none"> ● use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them
<i>Spring</i>			
<p>Animals including humans (Y6)</p>	<p>Asking questions and carrying out fair and comparative tests</p> <p>Observing and Measuring Changes</p> <p>Identifying, classifying, recording and presenting data</p> <p>Drawing conclusions, noticing patterns and presenting findings</p> <p>Using scientific evidence and secondary sources of enquiry</p>		<ul style="list-style-type: none"> ● plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary ● take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate ● record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs ● report and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations ● identify scientific evidence that has been used to support or refute ideas or arguments ● identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood ● recognise the impact of diet, exercise, drugs and lifestyle on the way



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			<p>their bodies function</p> <ul style="list-style-type: none"> ● describe the ways in which nutrients and water are transported within animals, including humans
Scientists and Inventors (Y6)	<p>Identifying, classifying, recording and presenting data</p> <p>Drawing conclusions, noticing patterns and presenting findings</p>		<ul style="list-style-type: none"> ● record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs ● report and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations ● give reasons for classifying plants and animals based on specific characteristics ● identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood ● recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function ● recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago ● use recognised symbols when representing a simple circuit in a diagram
			<i>Summer</i>



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	Living things and their habitats (Y6)	Asking questions and carrying out fair and comparative tests Identifying, classifying, recording and presenting data	<ul style="list-style-type: none"> ● use test results to make predictions to set up further comparative and fair tests ● describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals ● give reasons for classifying plants and animals based on specific characteristics
	Evolution and Inheritance (Y6)	Using scientific evidence and secondary sources of enquiry Drawing conclusions, noticing patterns and presenting findings	<ul style="list-style-type: none"> ● identify scientific evidence that has been used to support or refute ideas or arguments ● recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago ● recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents ● identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution