

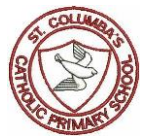


## Science Whole School Working Scientifically Progression

Strand		Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Working Scientifically</b>	<b>Asking Questions</b>	<p>In the EYFS, the characteristics of effective learning from the Statutory Framework for the Early Years Foundation Stage are the foundations on which the working scientifically skills build in Key Stage 1.</p> <p>While children are playing and exploring, teachers should be modelling, encouraging and supporting them to do the following: Show curiosity and ask questions</p>		<p>Pupils should be taught to:</p> <p>Ask simple questions and recognise that they can be answered in different ways</p>		<p>Pupils should be taught to:</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>Pupils should be taught to:</p> <p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p>	
	<b>Measuring &amp; Recording</b>	<p>Make observations using their senses and simple equipment</p> <p>Make direct comparisons</p> <p>Record their observations by drawing, taking photographs, using sorting rings or boxes and, in Reception, on simple tick sheets</p> <p>Use their observations to help them to answer their questions</p>		<p>Observe closely, using simple equipment</p> <p>Perform simple tests</p> <p>Gather and record data to help in answering questions</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> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions</p>		<p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p>	



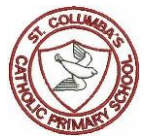
# St. Columba's Catholic Primary School



	Concluding	<p>Talk about what they have done and found out</p> <p>Identify, sort and group.</p> <p>Pupils should be taught to:</p> <p>Children question why things happen having their own ideas. Look closely at similarities, differences, patterns and change (40-60).</p>	<p>Identify and classify</p> <p>Use their observations and ideas to suggest answers to questions</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> <p>Use straightforward scientific evidence to answer questions or to support their findings</p>	<p>Identify scientific evidence that has been used to support or refute ideas or arguments</p> <p>Report and present 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</p>
	Evaluating	<p>Make observations and explain observations (ELG).</p> <p>Carry out observations on changes such as melting ice, floating and sinking, magnets. Begin to explain their observations</p>		<p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p>	<p>Use test results to make predictions to set up further comparative and fair tests</p>



# St. Columba's Catholic Primary School



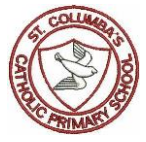
Strand		Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Biology</b>	<b>Plants</b>			<p>Pupils should be taught to:</p> <p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</p> <p>Identify and describe the basic structure of a variety of common flowering plants, including trees</p>	<p>Pupils should be taught to:</p> <p>Observe and describe how seeds and bulbs grow into mature plants</p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</p>	<p>Pupils should be taught to:</p> <p>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</p> <p>Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant</p> <p>Investigate the way in which</p>	<p>Pupils should be taught to:</p> <p>Use classification keys to identify a range of different plants</p>	<p>Pupils should be taught to:</p> <p>Describe the life process of reproduction in some plants and animals</p>	<p>Pupils should be taught to:</p> <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</p>



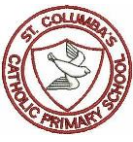




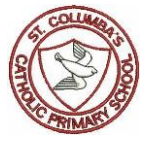
# St. Columba's Catholic Primary School



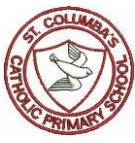
	Living Things and their Habitats				<p><b>Pupils should be taught to:</b></p> <p>Explore and compare the difference between things that are living, dead, and things that have never been alive</p> <p>Identify that most living things live in habitats to which they are suited and describe how different habitats provide 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 micro-habitats</p> <p>☑ describe how animals obtain</p>				
--	----------------------------------	--	--	--	---	--	--	--	--



# St. Columba's Catholic Primary School



					their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food				
--	--	--	--	--	--	--	--	--	--



# St. Columba's Catholic Primary School



Strand		Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Chemistry</b>	Asking Questions			<p>Pupils should be taught to:</p> <ul style="list-style-type: none"><li>ask simple questions and recognise that they can be answered in different ways</li></ul>		<p>Pupils should be taught to:</p> <ul style="list-style-type: none"><li>ask relevant questions and use different types of scientific enquiries to answer them</li><li>set up simple practical enquiries, comparative and fair tests</li></ul>			<p>Pupils should be taught to:</p> <ul style="list-style-type: none"><li>plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li></ul>

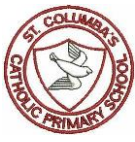




# St. Columba's Catholic Primary School



	Measuring & Recording		<ul style="list-style-type: none"><li>• observe closely, using simple equipment</li><li>• perform simple tests</li><li>• gather and record data to help in answering questions</li></ul>	<ul style="list-style-type: none"><li>• make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li><li>• record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</li><li>• gather, record, classify and present data in a variety of ways to help in answering questions</li></ul>	<ul style="list-style-type: none"><li>• take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li><li>• record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</li></ul>
	Concluding		<ul style="list-style-type: none"><li>• identify and classify</li><li>• use their observations and ideas to suggest answers to questions</li></ul>	<ul style="list-style-type: none"><li>• identify differences, similarities or changes related to simple scientific ideas and processes</li><li>• report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li></ul> <p>Use straightforward scientific evidence to answer questions or to support their findings</p>	<ul style="list-style-type: none"><li>• identify scientific evidence that has been used to support or refute ideas or arguments</li><li>• report and present 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</li></ul>



# St. Columba's Catholic Primary School



	Evaluating			Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	<ul style="list-style-type: none"><li>• use test results to make predictions to set up further comparative and fair tests</li></ul>
--	------------	--	--	---	---