



ST MARY'S CATHOLIC PRIMARY SCHOOL

Science – Progression of Skills

			Meldon	Venford	Avon	Fernworthy		Burrator	
			EYFS	Y1	Y2	Y3	Y4	Y5	Y6
PLAN	Planning	<ul style="list-style-type: none"> -Show curiosity about objects, events and people (Playing and Exploring) -Questions why things happen (Speaking:30-50 months) -Engage in open-ended activity (Playing and Exploring) -Take a risk, engage in new experiences and learn by trial and error (Playing and Exploring) 	<ul style="list-style-type: none"> -Ask simple questions and recognise that they can be answered in different ways: <ul style="list-style-type: none"> - Explore the world around them and raise their own simple questions -Experience different types of science enquiries, including practical activities -Begin to recognise different ways in which they might answer scientific questions 	<ul style="list-style-type: none"> -Ask relevant questions and using different types of scientific enquiries to answer them. - Set up simple practical enquiries, comparative and fair tests 	<ul style="list-style-type: none"> -Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary 				
	Key Vocabulary:	question, answer,	+ explore, prediction, equipment, biology, chemistry, physics	+ enquiry, comparative, fair tests, relevant questions, scientific enquiry	+ plan, variables				
	Plan for focused assessment (TAPS assessment plans – see link below)	Predicting: 'Browning Apples'	'Waterproof Materials'		'Investigating the human skeleton' 'Shoe grip' 'What is the strongest magnet?'	'Drying Materials' 'Investigating Pitch'	'Dissolving' 'Testing nappy absorbency' 'Paper planes'	'Bulb brightness' 'Raising and sorting light questions'	

DO	Observing/ obtaining evidence	<ul style="list-style-type: none"> -Closely observes what animals, people and vehicles do (The World: 8-20 months) -Use senses to explore the world around them (Playing and Exploring) -Choose the resources they need for their chosen activities (ELG: Self Confidence & Self Awareness) -Handle equipment and tools effectively (ELG: Moving & Handling) <p>- Change over Time Materials can be changed in a variety of ways which may alter their look or feel (CoT1,2)</p> <p>Curriculum link: Place What is in my world? (PL3)</p> 	<ul style="list-style-type: none"> -Observe closely, using simple equipment with help, observe changes over time. -Use simple measurements and equipment to gather data 	<ul style="list-style-type: none"> -Making systematic and careful observations and where appropriate, taking accurate measurements using standard units, using a range of equipment, including data loggers and thermometers 	<ul style="list-style-type: none"> -Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate 	
	Plan for focused assessment:	'Frozen Balloons'	'Plant Structure' or 'Leaf Looking	Comparing plant growth in different conditions'	'How much water do plants need?'	'Measuring Temperature'
	Performing simple tests	-Find ways to solve problems/ find new ways to do things/ test their ideas (Creating & Thinking Critically)	-Perform simple tests			
	Plan for focused assessment:	Incy Spider Shelter Test		'Floating and Sinking' or 'Rocket Mice'		
	Identifying and classifying	<ul style="list-style-type: none"> -Develop ideas of grouping, sequences, cause and effect (Creating and Thinking Critically) -Know about similarities and differences in relation to places, objects, materials and living things (ELG: The World) 	<ul style="list-style-type: none"> -Identifying and classifying: Use simple features to compare objects, materials and living things and, with help, decide how to sort them and classify them 			

		Plan for focused assessment:	'Scavenger Sort'	'Animal Identification'	'Nature Spotters'			'Growth survey' 'Spinners'	
		Using secondary sources	-Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world (The World: 30-50 months)	-Ask people questions and use simple secondary sources to find answers	-Ask people questions and use simple secondary sources to find answers			-Ask people questions and use simple secondary sources to find answers	
		Scientific Equipment	Magnifying glass, hand lenses, egg timer, Non-fiction books, iPads	As Reception + ruler, tape measure, metre sticks, room thermometer, thermometers	As KS1+ Data loggers			AS LKS2+ Protractors	
		Key Vocabulary:	look closely, sort	observe, observing, identify, classify, group	differences, similarities, changes, careful observation			accuracy, precision, repeat readings	
		Recording	<p>Curriculum link: Change over time (Changes in our world) How can we make change happen? (CoT3)</p>  <p>-Make links and notice patterns in their experience (Creating and Thinking Critically) -Create simple representations of events, people and objects (Being Imaginative: 40-60+months) -Develop their own narratives and explanations by connecting ideas or events (ELG: Speaking) -Builds up vocabulary that reflects the breadth of their experience (Understanding: 30-50 months)</p>	<p>-Gathering and recording data to help in answering questions: With guidance, they should begin to notice patterns and relationships.</p> <p>Record simple data</p> <p>With help, they should record and communicate their findings in a range of ways and begin to use scientific language</p>	<p>-Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</p> <p>-Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables</p>			<p>-Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p>	

		Plan for focused assessment:	'Making Butter'	'Seasonal Change' 'Bridge Testers'	'Woodlice Habitat'	'Cars down ramps' 'Can everything make a shadow?'	'Local Environment study'	'Sugar cube stacks' 'Craters'	'Investigating shadows' 'Outdoor keys'
		Maths progression:	Frequency chart, counting	Continue with all previously taught methods + Venn diagrams, labels, simple tables	Continue with all previously taught methods + Tally charts, picture graphs, pictograms, Carroll diagrams	Continue with all previously taught methods + Introduce bar graphs	Continue with all taught methods Introduce time graphs, classification keys, line graphs	Choose and explain method used Introduce finding percentages, use decimals	Choose and explain method used Use 'mean' as an average and decide when it is appropriate to use. Introduce Scatter graphs, pie charts and ratios.
		Key Vocabulary:	describe, group, record	evidence, data, patterns, diagram, chart, map,		gather, record, classify, present, systematic, accurate measurements		quantitative measurements,	
REVIEW		Concluding	-Answer how and why questions about their experiences (ELG: Understanding) -Make observations of animals and plants and explain why some things occur, and talk about changes (ELG:The World)	-Using their observations and ideas to suggest answers to questions: Talk about what they have found out and how they found it out		-Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions -Identifying differences, similarities or changes related to simple scientific ideas and processes -Using straightforward scientific evidence to answer questions or to support their findings		-Reporting 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	
		Key Vocabulary:		compare, contrast, describe, prediction		construct, interpret, evidence, conclusion		conclusion, causal relationship, explanations, degree of trust, patterns	

		Plan for focused assessment:		'Body Parts'	'Comparing Hand Spans' 'Sorting Living and non-living'	'The function of a plant stem' 'Reporting on rocks'	'Does it conduct electricity?' 'String Telephones'	'Champion Tape' 'Life cycle research' 'Solar system research'	'Egg strength' 'Invertebrate research'
		Evaluating				-Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions		-Use test results to make predictions to set up further comparative and fair tests -Identify scientific evidence that has been used to support or refute ideas or arguments	
		Key Vocabulary:	What have you found out? explain, how, why			improve		support, refute, arguments	
		Plan for focused assessment:	'Taste test'		'Boat Materials'		'Teeth (eggs) in liquids' 'Dunking biscuits'	'Aqua Dynamics' 'Insulation layers' 'Marble run'	'Heart rate head stands' 'Fossil Habitats'

Assessment plans available at: <https://pstt.org.uk/resources/curriculum-materials/assessment>