



St. George and St. Martin's Catholic Academy
Growing, learning and loving in Christ; united in play prayer and peace



Progression of Enquiry Skills

WORKING SCIENTIFICALLY								
Skills	EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	KEY STAGE 3
PLAN	<ul style="list-style-type: none"> Choose the resources they need for their chosen activities and say when they do or don't need help. 	<ul style="list-style-type: none"> Ask simple questions and recognising that they can be answered in different ways. 		<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"> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. 		<ul style="list-style-type: none"> Ask questions and develop a line of enquiry based on observations of the real world, alongside prior knowledge and experience. Select, plan and carry out the most appropriate types of scientific enquiries to test predictions, including identifying independent, dependent and control variables, where appropriate. Make predictions using scientific knowledge and understanding.
DO	<ul style="list-style-type: none"> Know about similarities and differences in relation to places, objects, materials and living things. Make observations 	<ul style="list-style-type: none"> Observe closely, using simple equipment. Perform simple tests. Identify and classify. 		<ul style="list-style-type: none"> Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, use a range of equipment, including thermometers and data loggers. 		<ul style="list-style-type: none"> Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. 		<ul style="list-style-type: none"> Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety. Evaluate the reliability of methods and suggest possible improvements. Evaluate risks. Pay attention to objectivity and concern

	<p>of animals and plants.</p> <ul style="list-style-type: none"> • Explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Select and use technology for particular purposes. 				<p>for accuracy, precision, repeatability and reproducibility.</p>
RECORD	<ul style="list-style-type: none"> • Represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories. 	<ul style="list-style-type: none"> • Gather and record data to help in answering questions. 	<ul style="list-style-type: none"> • Gather, record, classify and present data in a variety of ways to help in answering questions. • Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. 	<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. 	<ul style="list-style-type: none"> • Make and record observations and measurements using a range of methods for different investigations. • Apply sampling techniques. • Apply mathematical concepts and calculate results. • Use and derive simple equations and carry out appropriate calculations. • Undertake basic data analysis including simple statistical techniques.
REVIEW	<ul style="list-style-type: none"> • Talk about the features of their own immediate 	<ul style="list-style-type: none"> • Use their observations and ideas to suggest answers to questions. 	<ul style="list-style-type: none"> • Report on findings from enquiries, including oral and written explanations, 	<ul style="list-style-type: none"> • Use test results to make predictions to set up further 	<ul style="list-style-type: none"> • Interpret observations and data, including identifying patterns and using observations,

	<p>environment and how environments might vary from one another.</p> <ul style="list-style-type: none"> • Explain why some things occur and talk about changes. 		<p>displays or presentations of results and conclusions.</p> <ul style="list-style-type: none"> • Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. • Identify differences, similarities or changes related to simple scientific ideas and processes. • Use straightforward scientific evidence to answer questions or to support their findings. 	<p>comparative and fair tests.</p> <ul style="list-style-type: none"> • 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. • Identify scientific evidence that has been used to support or refute ideas or arguments. 	<p>measurements and data to draw conclusions.</p> <ul style="list-style-type: none"> • Present reasoned explanations, including explaining data in relation to predictions and hypotheses. • Evaluate data, showing awareness of potential sources of random and systematic error. • Understand that scientific methods and theories develop as earlier explanations are modified to take account of new evidence and ideas, together with the importance of publishing results and peer review.
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