

Science Skills Progression

St Paul's Cray CE Primary School

In order to ensure broad and balanced coverage, we follow these principles:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

QUESTIONING	
EYFS	<ul style="list-style-type: none"> • Asking simple questions to clarify understanding • Form positive relationships and develop respect for others by taking turns to speak and listen
Year 1/2	<ul style="list-style-type: none"> • Asking simple questions and recognising that they can be answered in different ways
Year 3/4	<ul style="list-style-type: none"> • Asking relevant questions and using different types of scientific enquiries to answer them • Using straightforward scientific evidence to answer questions or to support their findings.
Year 5/6	<ul style="list-style-type: none"> • Raise further questions after carrying out investigations • Identifying the most appropriate way to answer generated questions

INVESTIGATING	
EYFS	<ul style="list-style-type: none"> • To develop their confidence and skills in expressing themselves by investigating the world around them freely • Guiding children to make sense of their physical world and their community through opportunities to explore and find out about people, places, technology and the environment
Year 1/2	<ul style="list-style-type: none"> • Performing simple tests
Year 3/4	<ul style="list-style-type: none"> • Use different types of scientific enquiry to answer questions • Setting up simple practical enquiries, comparative and fair tests • Suggest improvements for tests completed • Taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
Year 5/6	<ul style="list-style-type: none"> • Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • Using test results to make predictions to set up further comparative and fair tests

CLASSIFYING AND PATTERN SEEKING	
EYFS	<ul style="list-style-type: none"> Identify simple patterns/similarities between 2 or more objects Make healthy choices in relation to food
Year 1/2	<ul style="list-style-type: none"> Identifying and classifying
Year 3/4	<ul style="list-style-type: none"> Classifying data in a variety of ways to help in answering questions Identifying differences, similarities or changes related to simple scientific ideas and processes
Year 5/6	<ul style="list-style-type: none"> Recording data and results of increasing complexity using classification keys

OBSERVING	
EYFS	<ul style="list-style-type: none"> Comment on things they observe Guiding children to make sense of their physical world and their community through opportunities to observe
Year 1/2	<ul style="list-style-type: none"> Observing closely, using simple equipment Using their observations and ideas to suggest answers to questions
Year 3/4	<ul style="list-style-type: none"> Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units
Year 5/6	<ul style="list-style-type: none"> Making accurate observations which inform data and from which they can draw conclusions

RECORDING, INTERPRETING AND PRESENTING DATA	
EYFS	<ul style="list-style-type: none"> Develop and improve their skills in counting, understanding and using numbers, calculating simple addition and subtraction problems; and to describe shapes, spaces, and measure Enabling children to explore and play with a wide range of media and materials, as well as providing opportunities and encouragement for sharing their thoughts, ideas and feelings through a variety of activities in art, music, movement, dance, role-play, and design and technology
Year 1/2	<ul style="list-style-type: none"> Gathering and recording data to help in answering questions.
Year 3/4	<ul style="list-style-type: none"> Taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using straightforward scientific evidence to answer questions or to support their findings.
Year 5/6	<ul style="list-style-type: none"> Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs Using test results to make predictions to set up further comparative and fair tests 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 Identifying scientific evidence that has been used to support or refute ideas or arguments.