

Science Skills Progression Grid St. Helen's Primary School

EYFS • Make comments about what they have heard and ask questions to clarify their understanding. • Explore the natural world around them, making observations and drawing pictures of animals and plants. • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	
Year 1 Practical Investigation • Responds to prompts by making some suggestions about how to find an answer or make observations. • Uses their senses and simple equipment to make observations. Communicating • Begins to record data in simple templates provided for them. • Responds to prompts to talk about what they have found out. Interpreting Evidence • Says what has changed when observing objects, living things or events.	Year 2 Practical Investigation • Uses different types of scientific enquiry...Observing changes over time. • Uses different types of scientific enquiry...Carrying out simple comparative tests. Communicating • Uses different types of scientific enquiry...Uses appropriate scientific language from the national curriculum to communicate their ideas in a variety of ways, what they do and what they find out. • Talks about what they have found out and how they found it out. • Uses simple features to compare objects, materials and living things and with help, decides how to sort and group them. Interpreting Evidence • Says whether what happened was what they expected. • Uses different types of scientific enquiry...Notices similarities, differences and patterns. • Uses different types of scientific enquiry...Grouping and classifying things.

Year 3 Practical Investigation • With support, discusses the most appropriate type of scientific enquiry they might use to answer questions. • Understands what a simple fair test is, and with support helps to set it up. • Begins to look for patterns and with help decides what data to collect to identify them. • With support helps to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. • Learns how to use new equipment, such as data loggers, appropriately. • With help collects data from their own observations and measurements, using notes, simple tables and standard units. Communicating • Talks about how the data may be recorded. • With support talks about criteria for grouping, sorting and classifying. Uses simple keys. • Beginning to use scientific language to discuss their ideas and communicate their findings. • With support is beginning to use some of the following methods to record their findings: drawings, labelled diagrams, keys, bar charts, and tables. • Beginning to report findings using basic oral and written explanations, displays or presentations of results. • Beginning to draw and express some conclusions. Interpreting Evidence • With help, looks for straightforward changes, patterns, similarities and differences in their data in order to draw simple conclusions. • With support, begins to identify new questions arising from the data. With help makes predictions for new values within or beyond the data they have collected. • With support discusses the success of their working methods.	Year 4 Practical Investigation • Starts to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions. • Recognises when a simple fair test is necessary and helps to decide how to set it up. • Begins to look for patterns and decides what data to collect to identify them. • Makes some decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. • Uses a range of equipment, including thermometers and data loggers, appropriately. • Collect data from their own observations and measurements, using notes, simple tables and standard units. Communicating • Helps to make decisions about how to record and analyse the data. • Gathers, records, classifies and presents data in a variety of ways to help in answering questions. • Uses relevant scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences. • Records findings using a range of methods including drawings, labelled diagrams, keys, bar charts, and tables. • Reports on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Interpreting Evidence • With help looks for changes, patterns, similarities and differences in their data in order to draw simple conclusions. • Uses straightforward scientific evidence to answer questions and to support their findings. • With support, identifies new questions arising from the data, and makes predictions for new values within or beyond the data they have collected. • Finds ways of improving what they have already done.
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Year 5 Practical Investigation • With increasing confidence selects and plans the most appropriate type of scientific enquiry for answering a scientific question. • Recognises when and how to set up comparative and fair tests and is beginning to explain which variables need to be controlled and why. • Makes their own decisions about what observations to make, what measurements to use and how long to make them for. • Chooses appropriate equipment to make measurements. Communicating • Decides how to record data from a choice of familiar approaches. • Uses relevant scientific language and illustrations to discuss and communicate their ideas. Is sometimes able to justify their scientific ideas. • Talks about how scientific ideas have developed over time. • Uses and develops keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural Environment. • Records data and results using scientific diagrams and labels, classification keys, tables, and bar and line graphs. • Uses simple models to describe scientific ideas. • Reports and presents findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations Interpreting Evidence • Looks for different causal relationships in their data and begins to identify evidence that refutes or supports their ideas. • Uses their results to identify when further tests and observations might be needed.	Year 6 Practical Investigation • Selects and plans accurately the most appropriate type of scientific enquiry for answering a scientific question. • Recognises when and how to set up comparative and fair tests and explains which variables need to be controlled and why. • Makes independent, well founded decisions about what observations to make, what measurements to use and how long to make them for. • Uses a range of scientific equipment to take accurate and precise measurements or readings, with repeat readings where appropriate. Communicating • Decides how to record data from a choice of familiar approaches. • Talks about how scientific ideas have developed over time. • Uses and develops keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment. • Records data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. • Describes and evaluates their own and other people's scientific ideas related to topics in the national curriculum (including ideas that have changed over time), using evidence from a range of sources. • Presents findings and draw conclusions in different forms, and raise further questions that could be investigated, based on their data and observations. • Uses appropriate scientific language and ideas from the national curriculum to explain, evaluate and communicate their methods and findings. Interpreting Evidence • Looks for different causal relationships in their data and identifies evidence that refutes or supports their ideas. • Uses test results to make predictions to set up further comparative and fair tests.
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