



Slindon CofE Primary School- Progression of skills – Working Scientifically

	Year 1 and Year 2	Year 3 and Year 4	Year 5 and Year 6
Grouping and classifying	<p>To find out about the world by asking simple questions.</p> <p>To make simple observations using simple equipment (magnifying glasses, etc.)</p> <p>To compare objects with support (in simple ways – sorting rings etc.) and begin to think about how we might group or sort objects.</p>	<p>"To find out about the world by asking questions building upon what they have learned in KS1."</p> <p>"To decide what criteria they will independently sort the objects (by colour, texture, type, weight =, size, purpose, material, properties etc)"</p> <p>"To be able to explain how the objects were sorted"</p> <p>To begin to use very simple classification keys</p>	<p>"To build on all their primary learning and wider general knowledge when generating scientific questions."</p> <p>"To learn more about different types of classification and other information records to identify, classify, sort and describe HOW their objects have been sorted. "</p> <p>"To begin to understand that there may be more than one way to sort a group of objects and begin to independently decide which method will be most efficient. "</p> <p>"To learn about the work of taxonomists such as Carl Linnaeus and create and read such keys. "</p>
Research	<p>"To ask simple questions about the world (generated with support) and look in non-fiction books and maybe newspapers, magazines, and the internet to find answers"</p>	<p>"To think of our own questions based on our prior learning and life experiences "</p> <p>"To ask simple questions about the world based on our own ideas and look in books, newspapers, magazines, and the internet to find answers"</p> <p>"To talk to experts and ask them simple questions (STEM workers, etc – our teachers help us to think about what questions we should ask). "</p> <p>"To think about what we want to find out and ask them scientific about what they do"</p>	<p>"To conduct scientific research using a range of sources - books, newspapers, magazines, journals, and the internet – and begin to understand that scientific ideas change over time an thus a book published in the 1970's will not have the most up to date research in it, nor can they simply read an online blog and take it as true fact "</p> <p>"To identify scientific evidence that has been used to support or refute ideas or arguments. "</p>
Patterns	<p>With guidance begin to notice patterns and relationships</p> <p>Interpret and constuct simple pictograms, tally charts, block diagrams and tables.</p> <p>Ask and answer simple questions, by counting the number of objects in each category and sorting the objects by category.</p>	<p>" To begin to look for naturally accruing patterns and relationships "</p> <p>"To begin to identify with support changes, similarities and differences and to draw simple conclusions "</p> <p>To begin to answer questions and identify new questions for future questioning</p>	<p>To look for different casual relationships in their data and identify evidence that refutes or supports their ideas</p> <p>"To use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas, use oral and written forms such as displays and other presentations to report conclusions, casual relationships and explanations of degree of trust in results"</p>

Observing changes over time	To use a magnifying glass to look closely at objects "To observe closely using simple equipment with help and use information we find to answer questions with support using simple scientific vocabulary "	To make careful observations using simple equipment "To think about how long to observe for and what equipment to use" "To think about how to record what we see and explain using simple scientific vocabulary"	To decide what they what to observe and why "To choose which equipment is best suited and why." "To decide what measurements to take and how to record the data." "To be able to explain their results in detail using precise scientific vocabulary. "
Comparative and fair tests	To experience practical testing opportunities, planned with support. To use simple equipment with support (magnifying glasses, scales, rulers, etc) To attempt to carry out simple tests. To record their findings in a range of simple ways (pictograms, tally chart etc) using simple scientific language.	"To setup simple, comparative and fair tests with help " To begin to recognise the difference, and which one is necessary "To take measurements using standard units and begin to use data loggers with help" With help, identify what they have learned.	"To choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. Take repeat measurements where appropriate." "To decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs" "To use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas, use oral and written forms such as displays and other presentations to report conclusions, causal relationships and explanations of degree of trust in results"