

Working scientifically skills progression

Skill	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Questioning and enquiry planning</b>	Ask simple questions about the world around us. Begin to recognise that they can be answered in different ways – using different types of enquiry.	Ask questions about the world around us. Recognise that they can be answered in different ways – using different types of enquiry.	Ask some relevant questions and use different types of scientific enquiries to answer them.	Ask relevant questions and use different types of scientific enquiries to answer them.	Begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
<b>Observing, measuring and pattern seeking</b>	Begin to observe closely, using simple equipment.	Observe to closely, using simple equipment.	Begin to make systematic and careful observations and, where appropriate take accurate measurements using standard units.	Make systematic and careful observations and, where appropriate take accurate measurements using standard units.	Begin to take measurements using a range of scientific equipment, taking repeat readings where appropriate.	Make their own decisions about what measurements to take and take measurements using a range of scientific equipment, with increasing accuracy and precision. Identify patterns. Interpret data and find patterns.
<b>Investigating</b>	Perform simple tests with support. Begin to discuss my ideas about how to find things out. Begin to say what happened in the investigation.	Perform simple tests. Discuss my ideas about how to find things out. Say what happened in the investigation.	Set up some simple practical enquiries, comparative and fair tests. Begin to recognise when a simple fair test is necessary and help decide how to set it up. Begin to think of more than one variable factor.	Set up some simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help decide how to set it up. Think of more than one variable factor.	Begin to use test results to make predictions to set up further comparative tests. Begin to recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. Begin to suggest improvements to my method and give reasons. Begin to decide when it is appropriate to do a fair test.	Use test results to make predictions to set up further comparative tests. Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. Suggest improvements to my method and give reasons. Begin to decide when it is appropriate to do a fair test.
<b>Recording and reporting findings</b>	Gather and record data with some adult support, to help in answering questions.	Gather and record data to help in answering questions.	Gather, record and begin to classify and present data in a variety of ways to help in answering questions.	Gather, record, classify and present data in a variety of ways to help in answering questions.	Begin to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs.	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs.
<b>Identifying, grouping and classifying</b>	Identify and classify with support. Begin to use simple features to compare objects, materials and living things and, with support decide how to sort and group them.	Identify and classify. Use simple features to compare objects etc, and decide how to group them.	Begin to identify differences, similarities or changes related to simple scientific ideas and processes. Begin to talk about criteria for grouping, sorting and classifying.	Identify differences, similarities or changes related to simple scientific ideas and processes. Talk about criteria for grouping, sorting and classifying.	Begin to use and develop keys and other information records to identify, classify and describe living things and materials.	Use and develop keys and other information records to identify, classify and describe living things and materials.
<b>Research</b>	To begin to find information from books and computers with help.	Find information from books and computers with help.	Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.	Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.	Begin to recognise which secondary sources will be most helpful to research their ideas.	Recognise which secondary sources will be most helpful to research their ideas.
<b>Conclusions</b>	Begin to talk about what they have found out and how they found it out.	Talk about what they found out and how they found it out.	Begin to use results to draw simple conclusions, link cause and effect, see patterns, make predictions, suggest improvements and raise further questions.	Use results to draw simple conclusions, link cause and effect, see patterns, make predictions, suggest improvements and raise further questions.	Begin to report and present findings from enquiries. Begin to draw conclusions based on their data and observations, use scientific knowledge and understanding to explain their findings. Begin to identify scientific evidence that has been used to support or refute ideas or arguments.	Report and present findings from enquiries. Draw conclusions based on their data and observations, use scientific knowledge and understanding to explain their findings. Identify scientific evidence that has been used to support or refute ideas or arguments.

Different types of enquire include observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out using secondary sources.