



### Progression in Science Skills

Skills	FS1	FS2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Questioning &amp; Enquiry Planning</b>	Observing closely  Begin to answer & ask simple questions  Talk about what they have found out	Observing closely and describing with the senses  Answer & ask simple questions  Talk about what they have found out	Ask simple questions about the world around us  Begin to recognise that they can be answered in different ways	Ask questions about the world around us  Recognise that they can be answered in different ways	Ask some relevant questions and use different types of scientific enquiries to answer them  Begin to explore everyday phenomena and the relationships between living things and familiar environments  Begin to raise their own questions about the world around them  Begin to make some decisions about which types of enquiry will be the best way of answering questions	Ask relevant questions and use different types of scientific enquiries to answer them  Explore everyday phenomena and the relationships between living things and familiar environments.  Raise their own questions about the world around them  Make some decisions about which types of enquiry will be the best way of answering questions	Begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables  Begin to explore and talk about ideas, ask their own questions, analyse relationships and interactions more systematically  Begin to recognise some more abstract ideas and begin to recognise how these ideas help them to understand how the world operates  Begin to recognise scientific ideas	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables  Explore and talk about ideas, ask their own questions, analyse relationships and interactions more systematically  Begin to recognise more abstract ideas and begin to recognise how these ideas help them to understand how the world operates  Begin to recognise scientific ideas change and develop over time

							change and develop over time  Begin to select the most appropriate ways to answer science questions using different types of scientific enquiry	Select the most appropriate ways to answer science questions using different types of scientific enquiry
<b>Observing &amp; Measuring</b>	Identifying and naming body some body parts  Use simple equipment	Identifying and naming body parts  Use equipment safely beginning to select own age appropriate equipment for the task	Begin to observe, using simple equipment  Use simple observations and ideas to suggest answers to questions  Observe simple changes over time and, with guidance, begin to notice patterns and relationships  Say what looking for and what measuring  Know how to use simple equipment safely	Observe closely, using simple equipment  Use observations and ideas to suggest answers to questions  Observe changes over time and, with guidance, begin to notice patterns and relationships  Say what looking for and measuring  Know how to use simple equipment safely  Use simple measurements and equipment with increasing	Begin to make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment  Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them  Help to make decisions about what observations to make, how long to make them for and the type of	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment  Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them  Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used	Begin to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate  Begin to identify patterns that might be found in the natural environment  Begin to make their own decisions about what observations to make, what measurements to use and how long to make them for and whether to repeat them	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate  Identify patterns that might be found in the natural environment  Make their own decisions about what observations to make, what measurements to use and how long to make them for and whether to repeat them

			<p>Use simple measurements and equipment with support (eg hand lenses and egg timers)</p> <p>Begin to progress from non-standard units, reading cm, m, cl, l, °C</p>	<p>independence (eg hand lenses and egg timers)</p> <p>Progress from non-standard units, reading mm, cm, m, ml, l, °C</p>	<p>simple equipment that might be used</p> <p>Begin to see a pattern in results</p> <p>Begin to choose from a selection of equipment</p> <p>Begin to observe and measure accurately using standard units including time in minutes and seconds</p>	<p>Notice a pattern in results</p> <p>Choose from a selection of equipment</p> <p>Observe and measure accurately using standard units including time in minutes and seconds</p>	<p>Choose the most appropriate equipment and explain how to use it accurately</p> <p>Begin to interpret data and find patterns</p> <p>Select equipment on own , make a set of observations</p> <p>Begin to take accurate and precise measurements – N, g, kg, mm, cm, mins, seconds, km/h, m per sec, m/ sec</p>	<p>Choose the most appropriate equipment and explain how to use it accurately</p> <p>Interpret data and find patterns</p> <p>Select equipment on my own</p> <p>Make a set of observations and describe</p> <p>Accurate and precise measurements – N, g, kg, mm, cm, mins, seconds, km/h, m per sec, m/ sec</p>
<b>Investigating</b>	Making simple predictions	Making predictions and giving some reasons why	<p>Perform simple tests with support</p> <p>Begin to discuss ideas about how to find things out</p> <p>Begin to say what happened in an investigation</p>	<p>Perform simple tests</p> <p>Discuss ideas about how to find things out</p> <p>Say what happened in an investigation</p>	<p>Set up some simple practical enquiries, comparative and fair tests</p> <p>Begin to recognise when a simple fair test is necessary and help to set it up</p> <p>Begin to think of more than one variable factor</p>	<p>Set up simple practical enquiries, comparative and fair tests</p> <p>Recognise when a simple fair test is necessary and help to set it up</p> <p>Think of more than one variable factor</p>	<p>Begin to use test results to make predictions to set up further comparative and fair tests</p> <p>Begin to recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why</p>	<p>Use test results to make predictions to set up further comparative and fair tests</p> <p>Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why</p>

							<p>Begin to suggest improvements to a method and give reasons</p> <p>Begin to decide when it is appropriate to do a fair test</p>	<p>Suggest improvements to a method and give reasons</p> <p>Decide when it is appropriate to do a fair test</p>
<b>Recording &amp; Reporting findings</b>		Add simple labels	<p>Gather and record data with some adult support, to help in answering questions</p> <p>Begin to record simple data</p> <p>Begin to record and communicate their findings in a range of ways</p> <p>Show results in a simple table that teacher has provided</p>	<p>Gather and record data to help in answering questions</p> <p>Record simple data</p> <p>Record and communicate findings in a range of ways</p> <p>Show results in a table that teacher has provided</p>	<p>Gather, record, and begin to classify and present data in a variety of ways</p> <p>Begin to record findings using simple scientific language, drawings, labelled diagram bar charts and tables</p> <p>Begin to report on findings, including oral and written explanations, displays or presentations of results and conclusions</p> <p>Begin to use notes, simple tables and standard units and help to decide how to record and analyse their data</p>	<p>Gather, record, classify and present data in a variety of ways to help in answering questions</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <p>Use notes, simple tables and standard units and help to decide how to record and analyse their data.</p>	<p>Begin to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs</p> <p>Begin to report and present findings from enquiries</p> <p>Begin to decide how to record data from a choice of familiar approaches</p> <p>Begin to choose how best to present data</p>	<p>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs</p> <p>Report and present findings from enquiries</p> <p>Decide how to record data from a choice of familiar approaches</p> <p>Choose how best to present data</p>

					Begin to record results in tables and bar charts, diagrams, keys,	Record results in tables and bar charts		
<b>Identifying , grouping &amp; classifying</b>	Comparing, sorting & grouping (living things)  Naming and sorting materials	Naming and sorting materials beginning to decide on own categories with support  Naming and sorting materials beginning to decide on own categories with support	Identify and classify with some support  Begin to observe and identify, compare and describe  Begin to use simple features to compare objects, materials and living things and, with help, decide how to sort and group them	Identify and classify  Observe and identify, compare and describe  Use simple features to compare objects, materials and living things and, with help, decide how to sort and group them	Begin to identify differences, similarities or changes  Begin to talk about criteria for grouping, sorting and classifying and use simple keys  Begin to compare and group according to behaviour or properties	Identify differences, similarities or changes  Talk about criteria for grouping, sorting and classifying and use simple keys  Compare and group according to behaviour or properties	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>		Finds information from illustrations and print in books and in the environment.  Knows that scientific information can be retrieved from books and computers	Begin to use simple secondary sources to find answers  Begin to find information from books and computers with help	Use simple secondary sources to find answers  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 useful to research their ideas	Recognise which secondary sources will be most useful to research their ideas

<b>Conclusions</b>		Talk about what they have found out	Begin to talk about what they have found out and how they found it out	Talk about what they have found out and how they found it out	Begin to use results to draw simple conclusions, make predictions, and suggest improvements	Use results to draw simple conclusions, make predictions, and suggest improvements	Begin to report and present findings from enquiries , in oral and written forms such as displays and other presentations	Reporting and present findings from enquire , in oral and written forms such as displays and other presentations
			Begin to say what happened in an investigation	Say what happened in my investigation	Begin to use scientific evidence to answer questions or to support their findings	Use scientific evidence to answer questions or to support their findings	Begin to identify scientific evidence that has been used	Identify scientific evidence that has been used
			Begin to say whether they were surprised at the results or not	Say whether they were surprised at the results or not	With help, begin to look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions	With help, look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions	Begin to draw conclusions based on their data and observations, use evidence to justify their ideas, use scientific knowledge and understanding to explain their findings	Draw conclusions based on their data and observations, use evidence to justify their ideas, use scientific knowledge and understanding to explain their findings
			Begin to say what they would change about an investigation	Say what they would change about an investigation	Begin to see a pattern in results	See a pattern in my results	Begin to use test results to make predictions to set up further comparatives and fair tests	Use test results to make predictions to set up further comparatives and fair tests
					Begin to say what they found out, linking cause and effect	Say what they found out, linking cause and effect	Begin to use test results to make predictions to set up further comparatives and fair tests	Use their results to identify when further tests and observations are needed
					Begin to say how they could make it better	Say how they could make it better	Use their results to identify when further tests and	Separate opinion from fact
					Begin to answer questions from what they have found out	Answer questions from what they have found out		

							<p>observations are needed</p> <p>Begin to separate opinion from fact</p> <p>Begin to draw conclusions and identify scientific evidence</p> <p>Use simple models</p> <p>Begin to use test results to make predictions to set up further comparative and fair tests</p>	<p>Draw conclusions and identify scientific evidence</p> <p>Use simple models</p> <p>Use test results to make predictions to set up further comparative and fair tests</p>
<b>Vocabulary</b>	<p>Begin to use some scientific language</p>	<p>Use some scientific language</p> <p>Identifying and naming body parts</p>	<p>Use some simple scientific language</p> <p>Begin to use some science words</p> <p>Use comparative language with support</p>	<p>Use simple scientific language and some science words</p> <p>Use comparative language – bigger, faster etc</p>	<p>Begin to use some scientific language to talk and, later, write about what they have found out</p> <p>Begin to use relevant scientific language</p> <p>Begin to use comparative language</p>	<p>Use some scientific language to talk and, later, write about what they have found out</p> <p>Use relevant scientific language</p> <p>Use comparative language</p>	<p>Begin to read, spell and pronounce scientific vocabulary correctly</p> <p>Begin to use relevant scientific language and illustrations to discuss, communicate and</p>	<p>Read , spell and pronounce scientific vocabulary correctly</p> <p>Use relevant scientific language and illustrations to discuss, communicate and justify scientific ideas</p>

							<p>justify scientific ideas</p> <p>Begin to use a range of scientific vocabulary</p> <p>Begin to use scientific ideas when describing simple processes</p> <p>Begin to use the correct science vocabulary</p>	<p>Confidently use a range of scientific vocabulary</p> <p>Use scientific ideas when describing simple processes</p> <p>Use the correct science vocabulary</p>
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