



SPARSHOLT C OF E PRIMARY SCHOOL

SCIENCE PROGRESSION



EYFS Progression of Skills	Arriving in Year 1 able to...				
<p>1. Ask questions Demonstrate curiosity about the world around them.</p> <p>2. Make predictions With support or prompting, talk about what they think might happen based on their own experiences.</p> <p>3. Decide how to carry out an enquiry Respond to prompts to say what happened to objects, living things or events.</p> <p>4. Take measurements Use senses and simple equipment to explore the world around them, e.g. binoculars and magnifying glasses.</p> <p>5. Record data Talk to an adult about what has been found/found out.</p> <p>6. Present data Talk to an adult about what has been found/found out.</p> <p>7. Answer questions using data With support, explain why some things occur.</p> <p>8. Draw conclusions With support, talk about what they have found out or what they think might happen next/change based on their own experiences.</p>	<p>Skills</p> <table border="1" data-bbox="1377 438 2004 957"> <thead> <tr> <th data-bbox="1377 438 1691 478">With support</th> <th data-bbox="1691 438 2004 478">Independently</th> </tr> </thead> <tbody> <tr> <td data-bbox="1377 478 1691 957"> <ul style="list-style-type: none"> • Make simple predictions about what they think might happen. • Carry out simple investigations in a small group. • Explain why something happened. • Use this to predict what might happen next/change. </td> <td data-bbox="1691 478 2004 957"> <ul style="list-style-type: none"> • Talk about what has happened. </td> </tr> </tbody> </table> <p>Knowledge</p> <ul style="list-style-type: none"> • Identify, compare, classify and group a variety of places, objects, materials and living things. • Talk about changes, including the seasons. • Talk about their immediate environment and compare it to other environments. 	With support	Independently	<ul style="list-style-type: none"> • Make simple predictions about what they think might happen. • Carry out simple investigations in a small group. • Explain why something happened. • Use this to predict what might happen next/change. 	<ul style="list-style-type: none"> • Talk about what has happened.
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Year 1 Progression of Skills	Arriving in Year 2 able to...				
<p>1. Ask questions Ask simple questions stimulated by their exploration of their world.</p> <p>2. Make predictions Respond to suggestions to connect what has been observed with possible further actions or observations.</p> <p>3. Decide how to carry out an enquiry Perform simple tests to explore a question or idea suggested to them, with support.</p> <p>4. Take measurements Observe objects, living things, events and the world around them closely, using their senses and simple equipment. Make measurements using non-standard units of measure.</p> <p>5. Record data Present evidence they have collected in simple templates provided for them to help in answering questions. Draw or photograph evidence and label with support.</p> <p>6. Present data Present findings in simple templates provided for them or orally. Draw or photograph evidence and label with support.</p> <p>7. Answer questions using data Respond to suggestions to connect what has been observed with possible further actions or observations.</p> <p>8. Draw conclusions Use their ideas to suggest answers to questions. Say what has changed when observing objects, living things or events.</p>	<p>Skills</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">With support</th> <th style="width: 50%; text-align: center;">Independently</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Record and present data. • Explain why something has happened. </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Make simple predictions. • Take measurements using non-standard units. • Talk about what has happened. • Use their results to answer questions. • Carry out simple investigations in a small group. </td> </tr> </tbody> </table>	With support	Independently	<ul style="list-style-type: none"> • Record and present data. • Explain why something has happened. 	<ul style="list-style-type: none"> • Make simple predictions. • Take measurements using non-standard units. • Talk about what has happened. • Use their results to answer questions. • Carry out simple investigations in a small group.
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Year 2 Progression of Skills	Arriving in Year 3 able to...				
<p>1. Ask questions Ask simple questions about their experiences and observations and with support use these observations to suggest ways to discover an answer or solve a problem, recognising that some can be answered in a variety of ways.</p> <p>2. Make predictions Use their observations and ideas to make predictions. Use understanding of what has been observed or own experience to predict outcomes of further actions or observations.</p> <p>3. Decide how to carry out an enquiry Identify things to measure or observe that are relevant to the questions or ideas they are investigating using a simple test. Suggest a practical way of how to find things out, or collect data to answer a question or idea they are investigating</p> <p>4. Take measurements Observe closely and use equipment provided for observation and measuring correctly. Make measurements using non-standard and standard units of measure.</p> <p>5. Record data Gather and record data in appropriate ways with increasing independence to help in answering questions.</p> <p>6. Present data Report on and record findings as drawings, photographs, labelled diagrams, orally, as displays or in simple prepared tables or charts.</p> <p>7. Answer questions using data Use understanding of what has been observed or own experience/ideas to answer questions.</p> <p>8. Draw conclusions Respond to suggestions to identify some evidence needed to answer a question.</p>	<p>Skills</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">With support</th> <th style="text-align: center;">Independently</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Ask their own questions and suggest ways to answer them. • Decide what to observe or measure. • Present data. • Explain why something has happened. </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Make simple predictions. • Take measurements using non-standard and standard units. • Record data. • Talk about what has happened. • Use their results to answer questions. </td> </tr> </tbody> </table>	With support	Independently	<ul style="list-style-type: none"> • Ask their own questions and suggest ways to answer them. • Decide what to observe or measure. • Present data. • Explain why something has happened. 	<ul style="list-style-type: none"> • Make simple predictions. • Take measurements using non-standard and standard units. • Record data. • Talk about what has happened. • Use their results to answer questions.
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Year 3 Progression of Skills	Arriving in Year 4 able to...				
<p>1. Ask questions Within a group, suggest relevant questions that can be explored further using different types of scientific enquiry.</p> <p>2. Make predictions Use straightforward scientific evidence to make predictions. With support, use results, observations or own experience to prompt new questions and predictions for a further test.</p> <p>3. Decide how to carry out an enquiry Plan and carry out simple practical enquiries, comparative and fair tests relevant to the questions or ideas they are investigating, with support.</p> <p>4. Take measurements Use a range of equipment for measuring and observing, including thermometers and data loggers. Take simple, accurate measurements and/or careful observations using whole number standard units relevant to questions or ideas under investigation.</p> <p>5. Record data Gather and present evidence and data using simple scientific language and vocabulary as writing, drawings, labelled diagrams and displays and through computing, keys, bar charts or tables (using ranges and intervals chosen for them), to help in answering questions.</p> <p>6. Present data Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions with support/as a group. Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables with support/as a group.</p> <p>7. Answer questions using data Use straightforward scientific evidence and results of enquiries to answer questions.</p> <p>8. Draw conclusions Say whether what happened was what they expected, acknowledging any unexpected outcomes.</p> <p>9. Evaluate their enquiry Use results of enquiries to consider whether they meet predictions and explain why.</p>	<p>Skills</p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">With support</th> <th style="width: 50%;">Independently</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Make predictions using scientific evidence. • Decide what to observe or measure. • Record data, including keys and bar charts. • Present data. • Explain why something has happened. • Use their results to state whether their prediction was correct and prompt new questions and predictions for a further test. </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Within a group, ask relevant questions and suggest ways to answer them. • Take measurements using whole number standard units. • Talk about what has happened and whether this was expected or not. • Use their results to answer questions. </td> </tr> </tbody> </table>	With support	Independently	<ul style="list-style-type: none"> • Make predictions using scientific evidence. • Decide what to observe or measure. • Record data, including keys and bar charts. • Present data. • Explain why something has happened. • Use their results to state whether their prediction was correct and prompt new questions and predictions for a further test. 	<ul style="list-style-type: none"> • Within a group, ask relevant questions and suggest ways to answer them. • Take measurements using whole number standard units. • Talk about what has happened and whether this was expected or not. • Use their results to answer questions.
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Year 4 Progression of Skills	Arriving in Year 5 able to...	
<p>1. Ask questions Ask relevant questions that can be answered by the appropriate scientific enquiry, research or experiment.</p> <p>2. Make predictions Use straightforward scientific evidence to make further predictions. Use results to make predictions for new values and raise further questions.</p> <p>3. Decide how to carry out an enquiry Plan and carry out simple practical enquires, comparative and fair tests relevant to the questions or ideas they are investigating. Identify one or more control variables from those provided when conducting a fair test.</p> <p>4. Take measurements Make systematic and careful observations of objects, living things and events. Choose from a range of provided, appropriate equipment for measuring and observing, including thermometers and data loggers. Take accurate measurements using more complex standard units and parts of units.</p> <p>5. Record data Gather and present simple scientific data in a variety of ways as Year 3, including tables and bar charts where intervals and ranges are agreed through discussion, to help in answering questions.</p> <p>6. Present data Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</p> <p>7. Answer questions using data Use results to answer questions.</p> <p>8. Draw conclusions Identify and use straightforward scientific evidence to support and explain their findings.</p> <p>9. Evaluate their enquiry Use results to suggest improvements.</p>	Skills	
	With support	Independently
	<ul style="list-style-type: none"> • Identify control variables from those provided. • Evaluate an investigation by suggesting improvements. 	<ul style="list-style-type: none"> • Ask relevant questions and suggest ways to answer them. • Make predictions using scientific evidence. • Take measurements using more complex standard units and parts of units. • Record data, including keys and bar charts, where intervals and ranges are agreed through as a class. • Present data. • Talk about what has happened and explain why. • Use their results to answer questions, state whether their prediction was correct and prompt new questions and predictions for a further test.

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Year 5 Progression of Skills	Arriving in Year 6 able to...					
<p>1. Ask questions Refine a scientific question so that it can be investigated, choosing an appropriate type of scientific enquiry to provide the best evidence.</p> <p>2. Make predictions Recognise when scientific evidence supports an idea or not and use this to support predictions. Use test results to prompt new questions and make predictions for setting up further tests.</p> <p>3. Decide how to carry out an enquiry Plan enquiries, deciding when it is appropriate to carry out a fair test or another type of practical enquiry from a range suggested. Identify one or more control variables in investigations when conducting a fair test.</p> <p>4. Take measurements Take measurements using a range of scientific equipment with increasing accuracy and precision, identifying the ranges and intervals used. With support, recognise that some measurements and observations may need to be repeated.</p> <p>5. Record data Select appropriate ways of gathering and presenting scientific data through models, writing, drawings, displays, computing, tables or graphs (choosing appropriate ranges and intervals). Use correct scientific symbols where appropriate in recording.</p> <p>6. Present data Present findings in written form, displays and other presentations including orally, explaining results and conclusions drawn from results. Identify causal relationships in reporting outcomes where appropriate.</p> <p>7. Answer questions using data Use results to answer questions.</p> <p>8. Draw conclusions Recognise when scientific evidence is for or against an argument.</p> <p>9. Evaluate their enquiry Recognise that the test may need improvements to improve reliability.</p>	<p>Skills</p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">With support</th> <th style="width: 50%;">Independently</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Refine a scientific question so that it can be investigated and choose an appropriate type of enquiry to provide the best evidence. • Recognise when scientific evidence supports an idea or not and use this to support predictions. • Identify control variables. • Record data, including keys, barcharts, line graphs and symbols, and identify the ranges and intervals used. • Understand when to take repeat readings. • Identify casual relationships. • Recognise when scientific evidence is for or against an argument. </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Present data. • Use their results to answer questions. • Evaluate an investigation by suggesting improvements </td> </tr> </tbody> </table>		With support	Independently	<ul style="list-style-type: none"> • Refine a scientific question so that it can be investigated and choose an appropriate type of enquiry to provide the best evidence. • Recognise when scientific evidence supports an idea or not and use this to support predictions. • Identify control variables. • Record data, including keys, barcharts, line graphs and symbols, and identify the ranges and intervals used. • Understand when to take repeat readings. • Identify casual relationships. • Recognise when scientific evidence is for or against an argument. 	<ul style="list-style-type: none"> • Present data. • Use their results to answer questions. • Evaluate an investigation by suggesting improvements
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Year 6 Progression of Skills	End of KS2 able to...	
<p>1. Ask questions Recognise scientific questions which do not yet have definitive answers and use a range of scientific enquiries to explore possible answers.</p> <p>2. Make predictions Identify scientific evidence that has been used to support or refute ideas or arguments and use this to support predictions. Use test results to make predictions for setting up further comparative and fair tests.</p> <p>3. Decide how to carry out an enquiry Recognise significant variables in investigations, selecting the most suitable to investigate, controlling variables where appropriate. Recognise which type of practical enquiry is most appropriate to the question or idea being investigated, before planning and carrying out the enquiry.</p> <p>4. Take measurements Correctly choose and use appropriate equipment to support observation and data collection with increasing accuracy. Decide whether it is appropriate to repeat observations or measurements and explain how this impacts on data collection.</p> <p>5. Record data Decide on the most appropriate formats to present sets of scientific data, such as using line graphs for continuous variables. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>6. Present data Report and present findings from enquiries, including conclusions, causal relationships and explanations of results in oral and written form, such as displays and other presentations.</p> <p>7. Answer questions using data Use results to answer questions.</p> <p>8. Draw conclusions Provide straightforward explanations for differences in repeated measurements or observations.</p> <p>9. Evaluate their enquiry Compare their results with others and give reasons why they may be different.</p>	Skills	
	With support	Independently
	<ul style="list-style-type: none"> • Recognise scientific questions which do not yet have definitive answers and explore possible answers. • Decide the most appropriate format to present sets of scientific data, e.g. line graphs for continuous variables. 	<ul style="list-style-type: none"> • Recognise when scientific evidence supports an idea or not and use this to support predictions. • Recognise (and control where necessary) significant variables in investigations, selecting the most suitable to investigate. • Understand when to take repeat readings and how this impacts on data collection. • Record data, including keys, scatter, bar and line graphs and symbols, and identify the ranges and intervals used. • Present data. • Identify causal relationships. • Explain differences in repeated measurements or observations. • Evaluate an investigation by comparing their results with others and giving reasons for variations.

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