

# Stepgates Community School Curriculum Mapping: Science 2022-2023



Early Years	Areas of Learning	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><b><u>Three- and Four-Year Olds</u></b></p> <p><b><u>Communication and Language:</u></b> Understand 'why' questions, like: "Why do you think the caterpillar got so fat?"</p> <p><b><u>Physical Development:</u></b> Make healthy choices about food, drink, activity and toothbrushing.</p> <p><b><u>Understanding the World:</u></b> Use all their senses in hands-on exploration of natural materials.  Explore collections of</p>	<p><b>Experimental skills</b></p> <p><i>Observe over time</i></p> <p><i>Pattern seeking</i></p> <p><i>Identifying, classifying and grouping</i></p> <p><i>Comparative and Fair test</i></p> <p><i>Research using secondary sources</i></p>	<p>Observe changes over time</p> <p>Observe changes and patterns</p> <p>Identify and classify</p> <p>Perform simple tests</p> <p>Perform a fair test with adult support</p>	<p>Observe changes over time</p> <p>Observe changes and patterns</p> <p>Identify and classify</p> <p>Perform simple tests</p> <p>Perform a fair test with adult support</p>	<p>Use simple equipment to observe closely including changes over time</p> <p>Use observations and ideas to suggest answers to questions noticing similarities, differences and patterns</p> <p>Identify, group and classify</p> <p>Perform simple comparative tests</p>	<p>Make systematic and careful observations over time</p> <p>Ask questions surrounding patterns found in data.</p> <p>Gather, record, classify and present data in a variety of ways</p> <p>Set up simple practical enquiries, comparative and fair tests</p> <p>Use secondary sources with adult support to help clarify results seen.</p>	<p>Make systematic and careful observations over time, looking at similarities and differences.</p> <p>Ask questions surrounding patterns found in data.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions</p> <p>Set up simple practical enquiries, comparative and fair tests</p> <p>Use secondary sources with adult support to</p>	<p>Observe over time, asking pertinent questions about similarities and differences.</p> <p>Ask questions surrounding patterns found in data as to why something observed has happened.</p> <p>Classify, group and present data in a series of ways to help in answering questions</p> <p>Take measurements, using a range of scientific equipment, with increasing</p>	<p>Recognise things change over time, and can ask pertinent questions and suggest reasons for similarities and differences over time</p> <p>Ask questions surrounding patterns found in data as to why something observed has happened.</p> <p>Develop and use keys and other information to classify and describe objects in ways to help answer questions</p>

# Stepgates Community School Curriculum Mapping: Science 2022-2023



<p>materials with similar and/or different properties.</p> <p>Talk about what they see, using a wide vocabulary.</p> <p>Begin to make sense of their own life-story and family's history.</p> <p>Explore how things work.</p>				<p>Gather and record data to help in answering questions including from secondary sources of information</p>		<p>help clarify results seen.</p>	<p>accuracy and precision.</p> <p>Use secondary sources to help interpret results seen.</p>	<p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>Use secondary sources to help interpret results seen.</p>
<p>Plant seeds and care for growing plants.</p> <p>Understand the key features of the life cycle of a plant and an animal.</p> <p>Begin to understand the need to respect and care for the natural environment and all living things.</p>	<p><b>Questions</b></p>	<p>Ask simple questions</p>	<p>Ask simple questions and recognise that they can be answered in different ways</p> <p>Use my observations and ideas to suggest answers to questions</p> <p>Communicate my ideas,</p>	<p>Ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum</p> <p>Communicate ideas, what I can do and what I can</p>	<p>Ask relevant questions to answer my questions in different ways using scientific language from the national curriculum.</p> <p>Ask questions surrounding patterns found in data.</p>	<p>Ask relevant questions and use different types of scientific enquiries to answer them using scientific language from the national curriculum</p> <p>Ask questions surrounding patterns I have found in data.</p>	<p>Plan different types of scientific enquiries to answer questions, including recognising variables where necessary</p> <p>Ask questions surrounding patterns found in data as to why something</p>	<p>Plan different types of scientific enquiries to answer my own or others' questions, including recognising and controlling variables where necessary</p> <p>Recognise things change</p>

# Stepgates Community School Curriculum Mapping: Science 2022-2023



<p>Explore and talk about different forces they can feel.</p> <p>Talk about the differences between materials and changes they notice_</p>			<p>what I can do and what I can find out in different ways</p>	<p>find out in different ways</p>		<p>Develop a deeper understanding through talk, asking questions about scientific phenomena, analysing functions and interactions more systematically.</p>	<p>observed has happened.</p> <p>Observe over time, asking pertinent questions about similarities and differences.</p>	<p>over time, and can ask pertinent questions and suggest reasons for similarities and differences over time</p>
<p><b>Reception</b></p> <p><b>Communication and Language:</b> Learn new vocabulary.</p> <p>Ask questions to find out more and to check what has been said to them.</p> <p>Articulate their ideas and thoughts in well-formed sentences.</p> <p>Describe events in some detail.</p>	<p><b>Using scientific equipment</b></p>	<p>Use magnifying glasses to look at objects in more detail</p> <p>Measure out ingredients using scientific and mathematic equipment</p>	<p>Use simple equipment to observe closely</p> <p>Use hand lenses and egg timers</p>	<p>Use simple equipment to observe closely including changes over time</p> <p>Ask questions about what is noticed</p> <p>Use hand lenses and egg timers</p>	<p>Set up simple practical enquiries, comparative and fair tests</p> <p>Make systematic and careful observations over time</p> <p>Take measurements using standard units, using a range of equipment.</p> <p>Set up simple practical enquiries, comparative and fair tests</p>	<p>Set up simple practical enquiries, comparative and fair tests</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision.</p>	<p>Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p>	<p>Take measurements, using a range of scientific equipment, including thermometers and data loggers, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>Make decisions and select the most appropriate type of scientific enquiry to use</p>

# Stepgates Community School Curriculum Mapping: Science 2022-2023



<p>Use talk to work out problems and organise thinking and activities.</p>								<p>and recognise how to set up a comparative and fair test.</p>
<p>Explain how things work and why they might happen.</p> <p>Use new vocabulary in different contexts.</p> <p><b><u>Physical Development:</u></b>                  Know and talk about the different factors that support their overall health and wellbeing:                  -regular physical activity                  -healthy eating                  -toothbrushing                  -sensible amounts of 'screen time'                  -having a good sleep routine                  -being a safe pedestrian</p>	<p><b>Recording data</b></p>	<p>Record observations in ways that are important and meaningful to me.</p>	<p>Gather and record data to help in answering questions</p> <p>Use simple scientific language such as: with help</p>	<p>Gather and record data to help in answering questions including from secondary sources of information</p>	<p>Gather, record, classify and present data in a variety of ways.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</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>Record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>Use test results to set up further comparative and fair tests</p>	<p>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>Use test results to make predictions to set up further comparative and fair tests</p>
	<p><b>Reporting on findings</b></p>				<p>Identify differences, similarities or changes related to simple scientific ideas and processes</p>	<p>Identify differences, similarities or changes related to simple scientific ideas and processes</p>	<p>Identify scientific evidence that has been used to support or refute ideas or arguments</p>	<p>Justify and evaluate my own and other people's scientific ideas related to topics in the national curriculum</p>

# Stepgates Community School Curriculum Mapping: Science 2022-2023



<p><b><u>Understanding the World:</u></b> Explore the natural world around them.</p> <p>Describe what they see, hear and feel while they are outside.</p> <p>Recognise some environments that are different to the one in which they live.</p> <p>Understand the effect of changing seasons on the natural world around them.</p> <p><b><u>ELG</u></b></p> <p><b><u>Communication and Language (Listening, Attention and Understanding)</u></b> Make comments about what they</p>					<p>Use straightforward scientific evidence to answer questions or to support my findings</p>	<p>Use straightforward scientific evidence to answer questions or to support my findings</p>		<p>(including ideas that have changed over time), using evidence from a range of sources</p>
---	--	--	--	--	--	--	--	--

# Stepgates Community School Curriculum Mapping: Science 2022-2023



<p>have heard and ask questions to clarify their understanding</p> <p><b><u>PSED (Managing Self):</u></b> Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.</p> <p><b><u>Understanding the World (The Natural World):</u></b> 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</p>								
--	--	--	--	--	--	--	--	--

# Stepgates Community School Curriculum Mapping: Science 2022-2023



<p>contrasting environments, drawing on their experiences and what has been read in class.</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>								
--	--	--	--	--	--	--	--	--