



Steining C of E Primary School
Science Progression Map – Working Scientifically



AREAS OF LEARNING	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Identifying and Classifying	Simple sorting activities into 2 sets			Use simple keys Talk about criteria for grouping, sorting and classifying Plants Rocks	Use simple keys Talk about criteria for grouping, sorting and classifying Animals including Humans Living Things and their Habitat	Use more complex keys to identify, classify and describe living things and materials Properties and Changes of Materials Forces	Use and develop/ add to more complex keys to identify, classify and describe living things and materials Living things and their habitats Evolution and Inheritance
Questioning (asking questions that can be answered using a scientific enquiry)	Show curiosity about objects, events and people through play and exploration Question why things happen Ask questions about the world they live in or the natural world Ask and answer questions about their own experiences	Explore the world around them and ask simple questions about what they see, what is happening, what they think will happen? Seasonal Changes Animals including Humans Everyday Materials	Explore the world around them and ask simple questions about what they see, what is happening, what they think will happen? Animals including Humans Uses of Everyday Materials	Begin to ask relevant questions about the science topic Carry out a range of investigations to answer enquiry questions Plants Forces	Begin to ask relevant questions about the science topic Carry out a range of investigations to answer enquiry questions Animals including Humans States of Matter	Come up with enquiry questions before each experiment Talk about how scientific ideas have changed over time Properties and Changes of Materials Forces	Come up with enquiry questions before each experiment Independently plan an experiment to answer an enquiry question Talk about how scientific ideas have changed over time Living things and their habitats
Predicting (Using prior	Children to talk about what they think will	Children to talk about what they predict will	Children to talk about what they predict will	With guidance children to make a	Independently make a prediction taking	Make further predictions after	Make further predictions after

knowledge to suggest what will happen in an enquiry)	happen	happen Animals including Humans Everyday Materials	happen Children to begin to record in a simple form what they predict will happen Animals including Humans Uses of Everyday Materials	prediction from prior knowledge Plants Forces	into account prior knowledge States of Matter Living Things and their Habitat Animals including Humans	looking at results from a previous experiment Properties and Changes of Materials Forces	looking at results from a previous experiment Living things and their habitats
Setting Up Tests (Decide on the method and equipment to use to carry out an enquiry)	Children to learn by trial and error Children to find ways to problem solve Use senses to test and explore the world around them Choose own materials for different tests	Use simple equipment to gather data for close observation Animals including Humans Everyday Materials	Use simple equipment to gather data for close observation Talk about how they are going to test something (observe, test or collect data) Animals including Humans Uses of Everyday Materials	Know what a fair test is Know when a fair test is needed Know what a variable is Decide how to test and what equipment is needed Plants Forces	Explain why a fair test is needed Decide which variables are going to change Decide how to test and what equipment is needed Living Things and their Habitat Animals including Humans	Recognise when to set up a fair test Set up a fair test Explain which variables are being changed Decide what equipment is needed Properties and Changes of Materials Forces	Recognise when to set up a fair test Set up a fair test Explain which variables are being changed Decide what equipment is needed Electricity
Observing and Measuring (Using senses and measuring equipment to make observations about the enquiry)	Observe what animals, people and objects do Observe animals and plants, talk about things that are the same and different Measure simple investigations eg How far a ball has rolled	Observe over time eg the changes in trees over the year Measure data using magnifying glasses and timers to show changes Animals including Humans Everyday Materials	Observe over time eg the changes in a plant over a period of time Measure data using magnifying glasses, timers, rulers, metre sticks to show changes Animals including Humans Uses of Everyday Materials	Observe carefully what has happened in an investigation over time Measure and record accurate measurements Scrumdiddlyumptious	Observe carefully what has happened in an investigation over time Measure and record accurate measurements Living Things and their Habitat Animals including Humans	Observe carefully what has happened in an investigation over time Measure and record accurate measurements and take repeated measurements when necessary Properties and Changes of Materials Forces	Observe carefully what has happened in an investigation over time Measure and record accurate measurements and take repeated measurements when necessary Living things and their habitats Evolution and

							Inheritance
Recording Data (using tables, drawings and other means to note observations and measurements)	Record verbally what has happened	Record using pictures and labels what has happened Animals including Humans Everyday Materials	Record using simple sentences Animals including Humans Uses of Everyday Materials	Record using notes, tables, bar charts, drawings, standard units, labelled diagrams and keys Scrumdiddlyumptious	Record using notes, tables, bar charts, drawings, standard units, labelled diagrams and keys Write an explanation of their experiment Present results Living Things and their Habitat Animals including Humans	Record using notes, tables, bar charts, drawings, standard units, labelled diagrams, scatter graphs and keys Write an explanation of their experiment Present results Properties and Changes of Materials Forces	Record using notes, tables, bar charts, drawings, standard units, labelled diagram, scatter graphs, line graphs and keys Write an explanation of their experiment Present results Living things and their habitats Evolution and Inheritance
Interpreting and Communicating Results (Using information from the data to say what you found out)	Record verbally what has happened	Record using pictures and labels what has happened Animals including Humans Everyday Materials	Record using simple sentences Animals including Humans Uses of Everyday Materials	Record using notes, tables, bar charts, drawings, standard units, labelled diagrams and keys Scrumdiddlyumptious	Record using notes, tables, bar charts, drawings, standard units, labelled diagrams and keys Write an explanation of their experiment Present results Living Things and their Habitat Animals including Humans	Record using notes, tables, bar charts, drawings, standard units, labelled diagrams, scatter graphs and keys Write an explanation of their experiment Present results Properties and Changes of Materials Forces	Record using notes, tables, bar charts, drawings, standard units, labelled diagram, scatter graphs, line graphs and keys Write an explanation of their experiment Present results Living things and their habitats Evolution and Inheritance
Concluding and Evaluating (Reflecting on	Notice patterns and talk about them with an adult	Notice patterns and talk about them with an adult	Talk about what has happened and link it back to the original prediction	Look at changes, patterns, differences and similarities in data	Look at changes, patterns, differences and similarities in data	Look for casual relationships in the data	Look for casual relationships in the data

<p>the success of the enquiry approach and identifying further questions for enquiry)</p>		<p>Animals including Humans Everyday Materials</p>	<p>Talk about patterns and differences Talk about how they might improve their experiment Animals including Humans Uses of Everyday Materials</p>	<p>Draw simple conclusions - why something has happened Suggest changes to the experiment Scrumdiddlyumptious</p>	<p>Draw simple conclusions - why something has happened Answer simple questions about the data Raise further questions in light of the results Living Things and their Habitat Animals including Humans</p>	<p>Identify evidence that supports or refutes their ideas Use scientific language and illustrations to discuss, communicate and justify their scientific ideas Properties and Changes of Materials Forces</p>	<p>Identify evidence that supports or refutes their ideas Use scientific language and illustrations to discuss, communicate and justify their scientific ideas Living things and their habitats Evolution and Inheritance</p>
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