Roe Green Infant School

Science – Knowledge and Skills Progression

	Reception	Year1	Year2
Approaches to enquiry	• Describe what they see, hear and feel whilst outside. • Explore the natural world around them. • Explore the natural world around them, making observations and drawing pictures of animals and plants. (ELG)	**Children should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including:** • observing changes over a period of time • noticing patterns • grouping and classifying things • carrying out simple comparative tests • finding things out using secondary sources of information	**Children should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including:** • observing changes over a period of time • noticing patterns • grouping and classifying things • carrying out simple comparative tests • finding things out using secondary sources of information
Asking questions	• Comments and asks questions about their familiar world. • Ask about where they live and the natural world. (This is taught discretely alongside the curriculum.)	**Ask simple questions** • Begin to shape questions using different question stems • Ask questions about how and why objects, materials and living things: • change • are similar or different to each other • connect with each other • are made or work • Suggest questions to investigate	**Ask simple questions** • Begin to shape questions using different question stems • Ask questions about how and why objects, materials and living things: 1. change 2. are similar or different to each other 3. connect with each other 4. are made or work • Suggest questions to investigate

Planning	• Find ways to solve problems • Test their ideas • Develop ideas of grouping • Make links and notice patterns (This is taught discretely alongside the curriculum.)	**Recognise that questions can be answered in different ways** With support: • suggest how to find things out • Identify changes to observe and measure • Identify patterns to observe and measure • Identify variables to change and measure • Identify sorting criteria • Suggest how to take measurements • Suggest next steps or a sequence of steps in a plan	**Recognise that questions can be answered in different ways** With support: • suggest how to find things out • Identify changes to observe and measure • Identify patterns to observe and measure • Identify variables to change and measure • Identify sorting criteria • Suggest how to take measurements • Suggest next steps or a sequence of steps in a plan
Collecting data	• Choose the resources they need • Handle equipment and tools effectively • Start to use simple lists (This is taught discretely alongside the curriculum.)	**Observe closely, using simple equipment** • Choose and use appropriate simple equipment to make observations • Use non-standard units to collect observations **performing simple tests** • Choose and use appropriate simple equipment with increasing accuracy to collect comparative data • Use non-standard units to collect data **identifying and classifying** • Sort objects by observable and behavioural features • Make comparisons between simple features **gathering data to help in answering questions** • Gather data to answer questions from a variety of sources including talking to people, simple books and electronic media, first hand observation and practical activity	**Observe closely, using simple equipment** • Choose and use appropriate simple equipment to make observations • Use non-standard units to collect observations **performing simple tests** • Choose and use appropriate simple equipment with increasing accuracy to collect comparative data • Use non-standard units to collect data **identifying and classifying** • Sort objects by observable and behavioural features • Make comparisons between simple features **gathering data to help in answering questions** • Gather data to answer questions from a variety of sources including talking to people, simple books and electronic media, first hand observation and practical activity

Presenting data	• Create simple representations (This is taught discretely alongside the curriculum.)	**Record data to help in answering questions** • Talk about what has been found out and how • Record observations in word and pictures • Record observations and test results in simple prepared pictograms, tables, tally charts, bar charts and maps including ICT formats • Record sorting in sorting circles or tables	**Record data to help in answering questions** • Talk about what has been found out and how • Record observations in word and pictures • Record observations and test results in simple prepared pictograms, tables, tally charts, bar charts and maps including ICT formats • Record sorting in sorting circles or tables
Concluding	• Answer how and why questions about their experiences • Make observations of animals and plant and say why some things occur • Develop their own narratives and explanations by connection ideas • Build up vocabulary (This is taught discretely alongside the curriculum.) • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. (ELG) • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. (ELG)	**Use their observations and ideas to suggest answers to questions** • Use simple scientific language to talk about observation or findings • Use results to answer the investigation question • Identify simple changes • Sequence changes • Say whether the change was expected • Identify similarities and differences • Make simple comparisons • Make links between two sets of observations • Identify simple patterns and talk about them • Say whether the pattern was expected • Identify simple causal relationships • Say if the relationship was expected	**Use their observations and ideas to suggest answers to questions** • Use simple scientific language to talk about observation or findings • Use results to answer the investigation question • Identify simple changes • Sequence changes • Say whether the change was expected • Identify similarities and differences • Make simple comparisons • Make links between two sets of observations • Identify simple patterns and talk about them • Say whether the pattern was expected • Identify simple causal relationships • Say if the relationship was expected
Evaluating	• Give a feedback/answer about something they have observed. (This is taught discretely alongside the curriculum.)	• Say whether data was useful • Say whether an information source was useful • Establish a conclusion based on observations. • Make an observation.	• Say whether data was useful • Say whether an information source was useful • Make an observation.