Progression of Skills for Science

	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Planning and predicting			Suggest what might happen and ways test ideas.	With help, suggest some ideas and questions. Think about how to collect evidence. Suggest what might happen. Think about and discuss whether comparisons and tests are fair or unfair.	Respond to suggestions. With help put forward ideas about testing. Make predictions. With help, consider what constitutes a fair test. With help plan and carry out a fair test.	Recognise why it is important to collect data to answer questions. Suggest questions that can be tested. Put forward ideas about testing and make predictions. With help, consider what constitutes a fair test.	Recognise that scientific ideas are based on evidence and creative thinking. Make predictions based on scientific knowledge. Suggest methods of testing including a fair test. Suggest how to collect evidence. Select suitable equipment.	Consider how scientists have combined evidence from observation and measurement with creative thinking to suggest new ideas and explanations for phenomena. Make predictions based on scientific knowledge and understanding. Suggest methods of testing including a fair test and how to collect evidence, ensuring it is sufficient and appropriate.
Investigating and observing	Use senses in hands on exploration of natural materials. Explore materials with similar and / or different properties.	Explore the natural world Recognise some environments that are different to the one, which they live in. Observe the natural world.	Make observations using appropriate senses. Explore using the five senses. Make simple comparisons and groupings.	Make observations and comparisons using simple equipment, following simple instructions. Use first-hand experience and,	Make observations and comparisons. Measure length, volume of liquid and time in standard measures using simple measuring	Make relevant observations and comparisons. Make measurements of temperature, time and force as well as	Carry out a fair test explaining why it is fair. Understand why observations and measurements need to be repeated.	Carry out a fair test identifying key factors to be considered. Make a variety of relevant observations and measurements using simple

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	Investigate natural materials. Investigate mechanical equipment. Explore different forces they can feel. Investigate and explore materials changing from one state to another.	Observe how animals behave differently as the seasons change. Observe and interact with natural processes (ice melting, light travelling through transparent material)		with help, simple information sources to answer questions.	equipment. Use first-hand experience and simple information sources to answer questions.	measurements of length. Begin to think about why measurements of length should be repeated. With help, carry out a fair test recognising and explaining why it is fair.	Select information from provided sources.	apparatus correctly. Decide when observations and measurements need to be checked, by repeating, to give more reliable data. Select information from a range of sources.
Recording, analysing and evaluating.	Show and explain the concepts of growth , change and decay with natural materials.	Describe what they see, hear and feel when outside. Record the seasonal changes. Describe what they have seen outside, including plants and animals. Name and describe plants and animals. Draw pictures of the natural world, animals and plants.	Communicate findings in simple ways. Collect evidence to try to answer a question.	Record findings in simple ways including tables, graphs etc. Say whether what happened was what was expected and draw simple conclusions.	Communicate findings in a variety of ways. Say whether what happened was what was expected. With help, identify simple patterns and suggest explanations.	Explain what the evidence shows in a scientific way and whether it supports predictions. Suggest improvements in their work.	Communicate findings in a variety of ways. Identify simple trends and patterns. Communicate findings in tables, bar charts and line graphs, whilst making appropriate use of ICT. Identify trends and patterns and offer explanations for these. To draw conclusions and communicate them in appropriate	Communicate findings in tables, bar charts and line graphs, whilst making appropriate use of ICT. Identify trends and patterns and results that do not appear to fit the pattern. Provide explanations for differences in observations and measurements. Draw conclusions and

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							scientific language. Suggest improvements in their work giving reasons.	communicate them in appropriate scientific language. Make practical suggestions for improving methods in their work giving suggestions.