Procedural Knowledge Progression within Science							
Mixed aged year groups	**Early Years**	**KS1 – Year 1 and 2**		**LKS2 – Year 3 and 4**		**UKS2 – Year 5 and 6**	
Single form entry	**Reception**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
1. Ideas and evidence in science	• Ask questions about aspects of their familiar world such as the place where they live or the natural world	• to collect evidence to try to answer a question	• to collect evidence to try to answer a question	• to collect evidence in a variety of contexts to answer a question or test an idea	• to collect evidence in a variety of contexts to test an idea or prediction based on their scientific knowledge and understanding	• to consider how scientists have combined evidence from observation and measurement with creative thinking to suggest new ideas and explanations for phenomena	• to consider how scientists have combined evidence from observation and measurement with creative thinking to suggest new ideas and explanations for phenomena
2. Investigative skills **Planning**	• Ask questions about aspects of their familiar world such as the place where they live or the natural world • Talks about why things happen and how things work	• to test ideas suggested to them and say what they think will happen	• to suggest some ideas and questions based on simple knowledge and say how they might find out about them; • to say what they think might happen • to think about and discuss whether comparisons and tests are fair or unfair	• in a variety of contexts; to suggest questions and ideas and how to test them; • to make predictions about what will happen; • to think about how to collect sufficient evidence in some contexts; • to consider what makes a test unfair or evidence sufficient and, with help, plan fair tests	• to suggest questions that can be tested and make predictions about what will happen, some of which are based on scientific knowledge; to design a fair test or plan how to collect sufficient evidence; • in some contexts, to choose what apparatus to use and what to measure	• to make predictions of what will happen based on scientific knowledge and understanding, and suggest how to test these; • to use knowledge and understanding to plan how to carry out a fair test or how to collect sufficient evidence to test an idea; • to identify factors that need to be taken into consideration in different contexts	• to decide how to turn ideas into a form that can be tested and, where appropriate, to make predictions using scientific knowledge and understanding; • to identify factors that are relevant to a particular situation; • to choose what evidence to collect to investigate a question, ensuring the evidence is sufficient; • to choose what equipment to use
- **Obtaining and presenting evidence**	• Can talk about the features of their own immediate environment and how environments might vary from one another • Makes observations of animals and plants and explains why some things occur, and talks about changes	• to make observations using appropriate senses; • to make some measurements of length using standard and non-standard measures; • to present some findings in simple tables and block graphs	• to make observations; to make measurements of length in standard and non-standard measures; • to make records of observations; and to present results in tables, drawings and block graphs	• to make observations and comparisons; • to measure length, volume of liquid and time in standard measures using simple measuring equipment effectively • to present results in drawings, bar charts and tables	• to make observations and comparisons of relevant features in a variety of contexts; • to make measurements of temperature, time and force as well as measurements of length; • to begin to think about why measurements of length should be repeated • to present results in bar charts and tables	• to make relevant observations; • to consolidate measurement of volume, temperature, time and length; • to measure pulse rate; • to think about why observations and measurements should be repeated; • to present results in bar charts and line graphs	• to make a variety of relevant observations and measurements using simple apparatus correctly; to decide when observations and measurements need to be checked, by repeating, to give more reliable data; • to use tables, bar charts and line graphs to present results
- **Considering evidence and evaluating**	• Looks closely at similarities, differences, patterns and change in nature • Know about similarities and differences in relation to places, objects, materials and living things	• to make simple comparisons and groupings that relate to differences and similarities between living things and objects; • in some cases to say what their observations show, and whether it was what they expected; • to draw simple conclusions and explain what they did	• to make simple comparisons, identifying similarities and differences between living things, objects and events; • to say what results show; • to say whether their predictions were supported; • in some cases to use knowledge • to explain what was found out and to draw conclusions; • to explain what they did	• to draw conclusions from results and begin to use scientific knowledge to suggest explanations for them; • to make generalisations and begin to identify simple patterns in results presented in tables	• to identify simple trends and patterns in results presented in tables, charts and graphs and to suggest explanations for some of these; • to explain what the evidence shows and whether it supports any prediction made; • to link the evidence to scientific knowledge and understanding in some contexts	• to decide whether results support any prediction; • to begin to evaluate repeated results; • to recognise and make predictions from patterns in data and suggest explanations for these using scientific knowledge and understanding; • to interpret data and think about whether it is sufficient to draw conclusions;	• to make comparisons; to evaluate repeated results; • to identify patterns in results and results that do not appear to fit the pattern; • to use results to draw conclusions and to make further predictions; • to suggest and evaluate explanations for these predictions using scientific knowledge and understanding;

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