


East Markham Primary School  
Progression of Scientific Enquiry




Contents:

- ❖ Observation over time
- ❖ Classifying and identifying
  - ❖ Pattern seeking
  - ❖ Research
- ❖ Comparative and fair testing
- ❖ Working scientifically Skills


## Observing over Time: Progression Grid

	<u>Plan</u>	<u>Do</u>	<u>Review</u>
<u>Foundation</u>	<ul style="list-style-type: none"> <li>I am curious about things that change</li> <li>With help, I ask questions about things changing</li> <li>I talk about my ideas for finding out how things change</li> </ul>	<ul style="list-style-type: none"> <li>I use all my senses to observe changes</li> <li>I look closely at how things change</li> <li>I make simple records of how things change (with help where necessary)</li> <li>I use simple equipment to observe and record changes</li> </ul>	<ul style="list-style-type: none"> <li>I talk about what I have done and what I noticed</li> </ul>
<u>KS1</u>	<ul style="list-style-type: none"> <li>I ask questions about how and why things change</li> <li>With help, I identify changes to observe and measure and suggest how to do it</li> </ul>	<ul style="list-style-type: none"> <li>I use non-standard units and simple equipment to record changes</li> <li>I record in words or pictures, or in simple prepared formats such as tables and charts</li> </ul>	<ul style="list-style-type: none"> <li>I identify simple changes and talk about them</li> <li>I sequence the changes</li> <li>I begin to use scientific language to talk about changes</li> <li>I talk about whether the change was what I expected</li> </ul>
<u>LKS2</u>	<ul style="list-style-type: none"> <li>I talk about things changing and recognise when questions can be answered by observing over time.</li> <li>I decide what observations to make, how often and what equipment to use</li> </ul>	<ul style="list-style-type: none"> <li>I use a range of equipment to collect data using standard measures</li> <li>I make records using tables and bar charts</li> <li>I begin to use and interpret graphs produced by dataloggers</li> </ul>	<ul style="list-style-type: none"> <li>I draw simple conclusions from the changes I observed</li> <li>I talk about changes using some scientific language</li> <li>I suggest improvements to the ways I observe</li> </ul>
<u>UKS2</u>	<ul style="list-style-type: none"> <li>I decide when observing changes over time will help to answer my questions</li> <li>I decide how detailed my observations need to be, and what equipment to use, to make my measurements as accurate as possible</li> </ul>	<ul style="list-style-type: none"> <li>I use equipment accurately without support</li> <li>I record data appropriately</li> <li>I present data in line graphs</li> <li>I interpret changes in the data</li> <li>I recognise the effect of changing the time and number of observations</li> </ul>	<ul style="list-style-type: none"> <li>I draw valid conclusions from data about changes</li> <li>I recognise the significance of things changing over time</li> <li>I talk about and explain changes using scientific knowledge and understanding</li> <li>I evaluate how well I observed over time</li> </ul>


## Identifying and Classifying: Progression Grid

	<u>Plan</u>	<u>Do</u>	<u>Review</u>
<u>Foundation</u>	<ul style="list-style-type: none"> <li>I am curious about similarities and differences</li> <li>With help, I ask questions about similarities and differences</li> <li>I talk about my ideas for sorting or matching things</li> </ul>	<ul style="list-style-type: none"> <li>I use all my senses to sort and match things</li> <li>I match things that are the same</li> <li>I find things that are similar or different</li> <li>I sort or group things in my own way</li> <li>I use simple equipment to help me sort things (e.g. boxes, hoops)</li> </ul>	<ul style="list-style-type: none"> <li>I talk about how I sorted or matched things</li> </ul>
<u>KS1</u>	<ul style="list-style-type: none"> <li>I ask questions about how and why things are similar and different</li> <li>I decide what to observe to identify or sort things</li> </ul>	<ul style="list-style-type: none"> <li>I make comparisons between simple features of objects, materials or living things</li> <li>I record my observations in words or pictures or simple tables</li> <li>I sort objects by observable and behavioural features</li> <li>I record my sorting in sorting circles and tables</li> </ul>	<ul style="list-style-type: none"> <li>I identify similarities and differences and talk about them</li> <li>I begin to use simple scientific language to talk about how things are similar or different</li> <li>I try to use my records to help sort or identify other things</li> </ul>
<u>LKS2</u>	<ul style="list-style-type: none"> <li>I talk about what criteria I will use to sort and classify things</li> <li>I decide what equipment to use to identify and classify things</li> <li>I talk about things that can be grouped and recognise when questions can be answered by sorting and classifying</li> </ul>	<ul style="list-style-type: none"> <li>I carry out simple tests to sort and classify according to properties or behaviour</li> <li>I use Carroll diagrams, Venn diagrams and more complex tables to sort things</li> <li>I use simple keys and branching databases to identify things</li> <li>I make simple branching databases (keys) for things that have clear differences.</li> </ul>	<ul style="list-style-type: none"> <li>I draw simple conclusions about the things I have sorted and classified</li> <li>I talk about the similarities and differences I identified using some scientific language</li> <li>I suggest improvements to the way I sort and identify things</li> </ul>
<u>UKS2</u>	<ul style="list-style-type: none"> <li>I decide when identifying and classifying will be helpful to answer my questions</li> <li>I decide what equipment, tests and secondary sources of information to use to identify and classify things</li> </ul>	<ul style="list-style-type: none"> <li>I use a series of tests to sort and classify materials</li> <li>I use secondary sources to identify and classify things</li> <li>I make my own keys and branching databases with four or more items</li> <li>I use more than one piece of scientific evidence to identify and classify things</li> </ul>	<ul style="list-style-type: none"> <li>I draw valid conclusions when sorting and classifying</li> <li>I recognise the significance of sorting and classifying</li> <li>I talk about and explain what I have done using scientific knowledge</li> <li>I evaluate how well my keys worked.</li> </ul>


## Pattern Seeking: Progression Grid

	<u>Plan</u>	<u>Do</u>	<u>Review</u>
<u>Foundation</u>	<ul style="list-style-type: none"> <li>I am curious about patterns</li> <li>With help, I ask questions about patterns</li> <li>I talk about my ideas for finding out about patterns</li> </ul>	<ul style="list-style-type: none"> <li>I use all my senses to look closely for patterns</li> <li>I observe more than one thing at a time</li> <li>I make simple records of what I notice (with help where necessary)</li> <li>I use simple equipment to observe and record patterns</li> </ul>	<ul style="list-style-type: none"> <li>I talk about what I have done and the patterns I noticed</li> </ul>
<u>KS1</u>	<ul style="list-style-type: none"> <li>I ask questions about how and why things are linked</li> <li>With help, I decide what patterns to observe and measure and suggest how to do it</li> </ul>	<ul style="list-style-type: none"> <li>I use non-standard units and simple equipment to record events that might be related</li> <li>I record in words or pictures, or in simple prepared formats such as tables tally charts and maps</li> </ul>	<ul style="list-style-type: none"> <li>I identify simple patterns and talk about them</li> <li>I make links between two sets of observations</li> <li>I begin to use scientific language to talk about patterns</li> <li>I talk about whether the pattern was what I expected</li> </ul>
<u>LKS2</u>	<ul style="list-style-type: none"> <li>I talk about where patterns might be found and recognise when questions can be answered by pattern seeking</li> <li>I decide on which sets of data to collect, what observations to make and what equipment to use</li> </ul>	<ul style="list-style-type: none"> <li>I use a range of equipment to collect data using standard measures</li> <li>I make records using tables, bar charts or simple scatter graphs</li> <li>I begin to use and interpret data collected by dataloggers</li> </ul>	<ul style="list-style-type: none"> <li>I draw conclusions about simple patterns between two sets of data</li> <li>I talk about patterns using some scientific language</li> <li>I suggest improvements to the way I looked for patterns</li> </ul>
<u>UKS2</u>	<ul style="list-style-type: none"> <li>I recognise when variables cannot be controlled and decide when pattern seeking will help to answer my question</li> <li>I decide how detailed my data needs to be and which equipment to use, to make my measurements as accurate as possible</li> </ul>	<ul style="list-style-type: none"> <li>I use equipment accurately to collect observations</li> <li>I record data appropriately and accurately</li> <li>I present data in scatter graphs and frequency charts</li> <li>I recognise patterns in results</li> <li>I recognise the effect of sample size on reliability</li> </ul>	<ul style="list-style-type: none"> <li>I draw valid conclusions from data about patterns and recognise their limitations</li> <li>I recognise the significance of relationships between sets of data</li> <li>I talk about and explain cause and effect patterns using scientific knowledge and understanding</li> <li>I evaluate how well I looked for patterns</li> </ul>

## Research: Progression Grid

	<u>Plan</u>	<u>Do</u>	<u>Review</u>
<u>Foundation</u>	<ul style="list-style-type: none"> <li>I am curious about things in my surroundings</li> <li>With help, I ask questions that I can answer using secondary sources</li> </ul>	<ul style="list-style-type: none"> <li>I listen carefully</li> <li>I know that information in books and electronic media can be used to answer questions</li> <li>I find pictures of things</li> <li>I talk to people about what they do and how things work</li> </ul>	<ul style="list-style-type: none"> <li>I talk about things I found out</li> </ul>
<u>KS1</u>	<ul style="list-style-type: none"> <li>I ask questions about how things are and the way they work</li> <li>With help, I make suggestions about how to find things out</li> </ul>	<ul style="list-style-type: none"> <li>I use simple books and electronic media to find things out</li> <li>I ask questions to find out what people do and how things work</li> <li>I record in words and pictures what I found out</li> </ul>	<ul style="list-style-type: none"> <li>I begin to use scientific language to talk about what I found out</li> <li>I talk about whether the information source was useful</li> <li>I give an opinion about some of the things I found out</li> </ul>
<u>LKS2</u>	<ul style="list-style-type: none"> <li>I talk about how things are and the way they work and recognise when questions can be answered by research using secondary sources</li> </ul>	<ul style="list-style-type: none"> <li>I use information sources to find the information I need</li> <li>I use someone else's data</li> <li>I record what I found out in my own words</li> <li>I present my information in different ways</li> </ul>	<ul style="list-style-type: none"> <li>I draw conclusions from what I found out from the different sources</li> <li>I talk about what the information and data means using some scientific language</li> <li>I suggest ways to improve how I find out and use information</li> </ul>
<u>UKS2</u>	<ul style="list-style-type: none"> <li>I decide when using secondary sources will help to answer my questions</li> <li>I decide which sources of information might answer my questions</li> </ul>	<ul style="list-style-type: none"> <li>I use relevant information and data from a range of secondary sources</li> <li>I recognise how data has been obtained</li> <li>I start to notice when information and data is biased or based on opinions rather than facts</li> <li>I present my findings in suitable formats</li> </ul>	<ul style="list-style-type: none"> <li>I draw valid conclusions from my research</li> <li>I talk about and explain my research using scientific knowledge and understanding</li> <li>I evaluate how well my research has answered my questions</li> <li>I recognise that some scientific questions may not have been answered definitively</li> </ul>

## Comparative and Fair Testing: Progression Grid

	<u>Plan</u>	<u>Do</u>	<u>Review</u>
<u>Foundation</u>	<ul style="list-style-type: none"> <li>I am curious about how things behave</li> <li>With help, I ask questions about things I can test</li> <li>I talk about my ideas for testing how things behave</li> </ul>	<ul style="list-style-type: none"> <li>I use my senses to look closely at how things behave</li> <li>I carry out simple tests</li> <li>I make simple records of what I notice (with help where necessary)</li> <li>I use simple equipment to observe and record</li> </ul>	<ul style="list-style-type: none"> <li>I talk about what I have done and what I noticed</li> <li>I talk about whether something makes a difference</li> </ul>
<u>KS1</u>	<ul style="list-style-type: none"> <li>I ask why &amp; how questions</li> <li>I make comparisons about how things behave</li> <li>With help, I notice links between cause and effect</li> <li>With help, I identify simple variables to change and measure</li> <li>I plan simple comparative tests</li> </ul>	<ul style="list-style-type: none"> <li>I use non-standard units and simple equipment to record data</li> <li>I record in words or pictures, or in simple prepared formats such as tables and tally charts</li> </ul>	<ul style="list-style-type: none"> <li>I talk about my data</li> <li>I use comparative data to rank materials or objects</li> <li>I use simple scientific language to describe simple causal relationships</li> <li>With help, I can say if my test was fair</li> <li>I say if the relationship was what I expected</li> </ul>
<u>LKS2</u>	<ul style="list-style-type: none"> <li>I talk about links between cause and effect and (with help) pose a fair test question</li> <li>I help to plan a comparative or fair test</li> <li>I decide what data to collect</li> <li>I decide what equipment to use and how to make observations</li> </ul>	<ul style="list-style-type: none"> <li>I use a range of equipment to collect data using standard measures</li> <li>I make records using tables and bar charts</li> <li>I begin to use and interpret data collected through dataloggers</li> </ul>	<ul style="list-style-type: none"> <li>I draw simple conclusions from my comparative and fair tests</li> <li>I talk about, and explain, simple causal relationships using some scientific language</li> <li>I suggest ways that I can improve my tests</li> </ul>
<u>UKS2</u>	<ul style="list-style-type: none"> <li>I recognise when variables need to be controlled and decide when a comparative or fair test is the best way to answer my question</li> <li>I plan a comparative or fair test, selecting variables to measure, change and keep the same</li> <li>I decide what equipment to use to make my measurements as accurate as possible</li> </ul>	<ul style="list-style-type: none"> <li>I use equipment accurately to collect observations</li> <li>I record data appropriately and accurately</li> <li>I present data in line graphs</li> <li>I identify causal relationships</li> </ul>	<ul style="list-style-type: none"> <li>I draw valid conclusions based on the data</li> <li>I recognise the significance of the results of comparative and fair tests</li> <li>I talk about and explain causal relationships using scientific knowledge and understanding</li> <li>I evaluate the effectiveness of my comparative and fair testing, recognising variables that were difficult to control</li> </ul>



## EYFS- Science

Three and Four-Year-Olds	Communication and Language		<ul style="list-style-type: none"> <li>Understand 'why' questions, like: "Why do you think the caterpillar got so fat?"</li> </ul>
	Physical Development		<ul style="list-style-type: none"> <li>Make healthy choices about food, drink, activity and toothbrushing.</li> </ul>
	Understanding the World		<ul style="list-style-type: none"> <li>Use all their senses in hands-on exploration of natural materials.</li> <li>Explore collections of materials with similar and/or different properties.</li> <li>Talk about what they see, using a wide vocabulary</li> <li>Begin to make sense of their own life-story and family's history.</li> <li>Explore how things work.</li> <li>Plant seeds and care for growing plants.</li> <li>Understand the key features of the life cycle of a plant and an animal.</li> <li>Begin to understand the need to respect and care for the natural environment and all living things.</li> <li>Explore and talk about different forces they can feel.</li> <li>Talk about the differences between materials and changes they notice.</li> </ul>
Reception	Communication and Language		<ul style="list-style-type: none"> <li>Learn new vocabulary.</li> <li>Ask questions to find out more and to check what has been said to them.</li> <li>Articulate their ideas and thoughts in well-formed sentences.</li> <li>Describe events in some detail.</li> <li>Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen.</li> <li>Use new vocabulary in different contexts.</li> </ul>
	Physical development		<ul style="list-style-type: none"> <li>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</li> </ul>
	Understanding the World		<ul style="list-style-type: none"> <li>Explore the Natural World around them</li> <li>Describe what they see, hear and feel while they are outside.</li> <li>Recognise some environments that are different to the one in which they live.</li> <li>Understand the effect of changing seasons on the natural world around them.</li> </ul>
ELG	Communication and Language	Listening, Attention and Understanding	<ul style="list-style-type: none"> <li>Make comments about what they have heard and ask questions to clarify their understanding.</li> </ul>
	Personal, Social and emotional Development	Managing Self	<ul style="list-style-type: none"> <li>Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.</li> </ul>
	Understanding the World	The Natural World	<ul style="list-style-type: none"> <li>Explore the natural world around them, making observations and drawing pictures of animals and plants</li> <li>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.</li> <li>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</li> </ul>



Asking Questions



Asking questions and recognising that they can be answered in different ways

KS1	LKS2	UKS2
<p><b>Asking simple questions and recognising that they can be answered in different ways</b></p> <ul style="list-style-type: none"> <li>• While exploring the world, the children develop their ability to ask questions (such as what something is, how things are similar and different, the ways things work, which alternative is better, how things change and how they happen). Where appropriate, they answer these questions.</li> <li>• The children answer questions developed with the teacher often through a scenario.</li> <li>• The children are involved in planning how to use resources provided to answer the questions using different types of enquiry, helping them to recognise that there are different ways in which questions can be answered.</li> </ul>	<p><b>Asking relevant questions and using different types of scientific enquiries to answer them</b></p> <ul style="list-style-type: none"> <li>• The children consider their prior knowledge when asking questions. They independently use a range of question stems. Where appropriate, they answer these questions.</li> <li>• The children answer questions posed by the teacher.</li> <li>• Given a range of resources, the children decide for themselves how to gather evidence to answer the question. They recognise when secondary sources can be used to answer questions that cannot be answered through practical work. They identify the type of enquiry that they have chosen to answer their question.</li> </ul>	<p><b>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</b></p> <ul style="list-style-type: none"> <li>• Children independently ask scientific questions. This may be stimulated by a scientific experience or involve asking further questions based on their developed understanding following an enquiry.</li> <li>• Given a wide range of resources the children decide for themselves how to gather evidence to answer a scientific question. They choose a type of enquiry to carry out and justify their choice. They recognise how secondary sources can be used to answer questions that cannot be answered through practical work.</li> </ul>





Asking Questions



Making observations and taking measurements		
KS1	LKS2	UKS2
<p><b>Observing closely, using simple equipment</b></p> <ul style="list-style-type: none"> <li>Children explore the world around them. They make careful observations to support identification, comparison and noticing change. They use appropriate senses, aided by equipment such as magnifying glasses or digital microscopes, to make their observations.</li> <li>They begin to take measurements, initially by comparisons, then using non-standard units.</li> </ul>	<p><b>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</b></p> <ul style="list-style-type: none"> <li>The children make systematic and careful observations.</li> <li>They use a range of equipment for measuring length, time, temperature and capacity. They use standard units for their measurements.</li> </ul>	<p><b>Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</b></p> <ul style="list-style-type: none"> <li>The children select measuring equipment to give the most precise results e.g. ruler, tape measure or trundle wheel, force meter with a suitable scale.</li> <li>During an enquiry, they make decisions e.g. whether they need to: take repeat readings (fair testing); increase the sample size (pattern seeking); adjust the observation period and frequency (observing over time); or check further secondary sources (researching); in order to get accurate data (closer to the true value).</li> </ul>



Setting up Tests



Engaging in practical enquiry to answer questions		
KS1	LKS2	UKS2
<p><b>Performing simple tests</b></p> <ul style="list-style-type: none"> <li>The children use practical resources provided to gather evidence to answer questions generated by themselves or the teacher. They carry out: tests to classify; comparative tests; pattern seeking enquiries; and make observations over time.</li> </ul> <p><b>Identifying and classifying</b></p> <ul style="list-style-type: none"> <li>Children use their observations and testing to compare objects, materials and living things. They sort and group these things, identifying their own criteria for sorting.</li> <li>They use simple secondary sources (such as identification sheets) to name living things. They describe the characteristics they used to identify a living thing.</li> </ul>	<p><b>Setting up simple practical enquiries, comparative and fair tests</b></p> <ul style="list-style-type: none"> <li>The children select from a range of practical resources to gather evidence to answer questions generated by themselves or the teacher.</li> <li>They follow their plan to carry out: observations and tests to classify; comparative and simple fair tests; observations over time; and pattern seeking.</li> </ul> <p><b>Explanatory note</b></p> <p>A comparative test is performed by changing a variable that is qualitative e.g. the type of material, shape of the parachute. This leads to a ranked outcome. A fair test is performed by changing a variable that is quantitative e.g. the thickness of the material or the area of the canopy. This leads to establishing a causative relationship.</p>	<p><b>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</b></p> <ul style="list-style-type: none"> <li>The children select from a range of practical resources to gather evidence to answer their questions. They carry out fair tests, recognising and controlling variables. They decide what observations or measurements to make over time and for how long. They look for patterns and relationships using a suitable sample.</li> </ul>



Recording Data



Recording and presenting evidence		
KS1	LKS2	UKS2
<p><b>Gathering and recording data to help in answering questions</b></p> <ul style="list-style-type: none"> <li>• The children record their observations e.g. using photographs, videos, drawings, labelled diagrams or in writing.</li> <li>• They record their measurements e.g. using prepared tables, pictograms, tally charts and block graphs.</li> <li>• They classify using simple prepared tables and sorting rings.</li> </ul>	<p><b>Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</b></p> <p><b>Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</b></p> <ul style="list-style-type: none"> <li>• The children sometimes decide how to record and present evidence. They record their observation e.g. using photographs, videos, pictures, labelled diagrams or writing. They record their measurements e.g. using tables, tally charts and bar charts (given templates, if required, to which they can add headings). They record classifications e.g. using tables, Venn diagrams, Carroll diagrams.</li> <li>• Children are supported to present the same data in different ways in order to help with answering the question.</li> </ul>	<p><b>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</b></p> <ul style="list-style-type: none"> <li>• The children decide how to record and present evidence. They record observations e.g. using annotated photographs, videos, labelled diagrams, observational drawings, labelled scientific diagrams or writing. They record measurements e.g. using tables, tally charts, bar charts, line graphs and scatter graphs. They record classifications e.g. using tables, Venn diagrams, Carroll diagrams and classification keys.</li> <li>• Children present the same data in different ways in order to help with answering the question.</li> </ul>



Evaluating



Answering questions and concluding

Answering questions and concluding		
KS1	LKS2	UKS2
<p><b>Using their observations and ideas to suggest answers to questions</b></p> <ul style="list-style-type: none"> <li>Children use their experiences of the world around them to suggest appropriate answers to questions. They are supported to relate these to their evidence e.g. observations they have made, measurements they have taken or information they have gained from secondary sources.</li> </ul>	<p><b>Using straightforward scientific evidence to answer questions or to support their findings</b></p> <ul style="list-style-type: none"> <li>Children answer their own and others' questions based on observations they have made, measurements they have taken or information they have gained from secondary sources. The answers are consistent with the evidence.</li> </ul>	<p><b>Identifying scientific evidence that has been used to support or refute ideas or arguments</b></p> <ul style="list-style-type: none"> <li>Children answer their own and others' questions based on observations they have made, measurements they have taken or information they have gained from secondary sources. When doing this, they discuss whether other evidence e.g. from other groups, secondary sources and their scientific understanding, supports or refutes their answer.</li> <li>They talk about how their scientific ideas change due to new evidence that they have gathered.</li> <li>They talk about how new discoveries change scientific understanding.</li> </ul>
<p><b>Using their observations and ideas to suggest answers to questions</b></p> <ul style="list-style-type: none"> <li>The children recognise 'biggest and smallest', 'best and worst' etc. from their data.</li> </ul>	<p><b>Identifying differences, similarities or changes related to simple scientific ideas and processes</b></p> <ul style="list-style-type: none"> <li>Children interpret their data to generate simple comparative statements based on their evidence. They begin to identify naturally occurring patterns and causal relationships. Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> <li>They draw conclusions based on their evidence and current subject knowledge.</li> </ul>	<p><b>Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</b></p> <ul style="list-style-type: none"> <li>In their conclusions, children: identify causal relationships and patterns in the natural world from their evidence; identify results that do not fit the overall pattern; and explain their findings using their subject knowledge.</li> </ul>



Making Predictions



Evaluating and raising further questions and predictions		
KS1	LKS2	UKS2
	<p><b>Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</b></p> <ul style="list-style-type: none"> <li>• They identify ways in which they adapted their method as they progressed or how they would do it differently if they repeated the enquiry.</li> </ul> <p><b>Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</b></p> <ul style="list-style-type: none"> <li>• Children use their evidence to suggest values for different items tested using the same method e.g. the distance travelled by a car on an additional surface.</li> <li>• Following a scientific experience, the children ask further questions which can be answered by extending the same enquiry.</li> </ul>	<p><b>Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</b></p> <ul style="list-style-type: none"> <li>• They evaluate, for example, the choice of method used, the control of variables, the precision and accuracy of measurements and the credibility of secondary sources used.</li> <li>• They identify any limitations that reduce the trust they have in their data.</li> </ul> <p><b>Using test results to make predictions to set up further comparative and fair tests</b></p> <ul style="list-style-type: none"> <li>• Children use the scientific knowledge gained from enquiry work to make predictions they can investigate using comparative and fair tests.</li> </ul>



Interpreting and Communicating results



Evaluating and raising further questions and predictions		
KS1	LKS2	UKS2
	<p><b>Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</b></p> <ul style="list-style-type: none"> <li>• They communicate their findings to an audience both orally and in writing, using appropriate scientific vocabulary.</li> </ul>	<p><b>Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</b></p> <ul style="list-style-type: none"> <li>• They communicate their findings to an audience using relevant scientific language and illustrations</li> </ul>