

Science – Knowledge Progression Document

Observing						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Discuss what they can see, touch, smell, hear or taste?</p> <p>Use simple equipment to help them make observations.</p>	<p>Discuss and describe what they can see, touch, smell, hear or taste.</p> <p>Use a range of equipment to help them make observations.</p>	<p>Use senses of see, touch, smell, hear or taste to help them answer questions.</p> <p>Observe and compare several things whilst recognising when doing so might not be fair.</p>	<p>Observe changes over different periods of time.</p>	<p>Make systematic and careful observations of changes over different periods of time.</p>	<p>Continue to make systematic and careful observations of changes over different periods of time.</p>	<p>Continue to make systematic and careful observations of changes over different periods of time.</p>

Performing Tests and Obtaining Evidence

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Can perform a simple test with support from an adult.	Can use simple equipment to perform a simple test under guidance.	<p>Can use simple equipment to perform a simple test (considering the fairness)</p> <p>Observe changes over time.</p> <p>Notice similarities, differences and patterns.</p> <p>Grouping and classifying.</p> <p>Carrying out comparative tests.</p> <p>With support find things out using secondary sources.</p>	<p>Perform simple comparative and fair tests.</p> <p>Observe changes over different periods of time.</p> <p>Notice patterns.</p> <p>Group and classify.</p> <p>Follow and carry comparative and fair tests.</p> <p>Find things out using secondary sources.</p>	<p>Perform simple comparative and fair tests and isolate variables.</p> <p>Carry out a fair test independently and in groups.</p> <p>Notice and begin to explain patterns.</p> <p>Group and classify.</p> <p>Choose from a range of examples and carry out comparative and fair tests</p> <p>Use a range of secondary sources to find information.</p>	<p>Can take measurements using range of equipment with increasing accuracy and precision.</p> <p>Take repeat readings when appropriate.</p> <p>Carry out accurate and fair tests</p>	<p>Can make precise measurements.</p> <p>Select appropriate equipment and carry out comparative and fair tests.</p> <p>Recognise, control variables accurately and fairly, including changes over different periods of time.</p> <p>Notice patterns, groupings and classify.</p> <p>Find things out using a wide range of secondary sources.</p>

Questioning, Prediction and Planning

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Generate questions about the world around them.</p> <p>Talk about what they think will happen.</p>	<p>Use prompts to ask relevant questions about a scientific enquiry.</p> <p>Under guidance make simple verbal predictions.</p>	<p>Ask relevant questions about scientific enquiry.</p> <p>With prompts, begin to make and record simple predictions.</p>	<p>Select relevant questions to answer different types of scientific enquiry.</p> <p>Can use different ideas and suggest how to find something out.</p> <p>Make and record a prediction.</p> <p>Explain what data is required.</p> <p>Set up simple comparative and fair tests.</p>	<p>Ask relevant questions to answer different types of scientific enquiry.</p> <p>Explain why certain variables have been isolated.</p> <p>Make and record a prediction based on prior knowledge.</p> <p>Set up simple comparative and fair tests and isolate variables.</p>	<p>Plan and carry out scientific enquiry to answer their own questions, including recognising and controlling variables.</p> <p>Make a prediction and explain why.</p> <p>Identify the key factors when planning a fair test.</p>	<p>Plan, justify (giving reasons) and carry out scientific enquiry to answer their own questions, including recognising and controlling variables.</p> <p>Use information and test results to make predictions and further comparative tests.</p> <p>Vary one factor whilst keeping the others the same and explain why.</p>

Recording and Presenting

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Show their work using pictures, labels and captions.</p> <p>Record findings using standard units.</p> <p>Record information in a chart, table or using ICT.</p>	<p>Can show their work using pictures, labels and captions.</p> <p>Record their findings using standard units.</p> <p>Can record some information in chart or table using ICT.</p>	<p>Can use text, diagrams, pictures, charts and tables to record their findings and observations.</p> <p>Measure using simple equipment</p> <p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. (Maths Statistics)</p>	<p>Take accurate measurements using different equipment and units of measure.</p> <p>Can record their observations in different ways (labelled diagrams, charts etc.)</p> <p>Describe what they have found out using scientific language.</p> <p>Interpret and present data using bar charts, pictograms and tables. (Maths Statistics)</p>	<p>Take measurements using different equipment and units of measure and record what they have found in a range of ways.</p> <p>Use a range of scientific equipment to take accurate measurements or readings.</p> <p>Record data using diagrams, labels, classification keys, tables, scatter graphs, bar graphs and line graphs.</p> <p>Interpret and present discrete and continuous data using graphical methods. (Maths Statistics)</p>	<p>Can take measurements using a range of scientific equipment with increasing accuracy and precision.</p> <p>Take repeat readings when appropriate.</p> <p>Can record more complex data and results using scientific diagrams, labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>Complete, read and interpret information in table, including timetables. (Maths Statistics)</p>	<p>Explain why they have chosen specific equipment.</p> <p>Decide which unit of measurement they need to use.</p> <p>Make accurate measurements.</p> <p>Explain why a measurement needs to be repeated.</p> <p>Record measurements systematically using a range of scientific equipment with increasing accuracy and precision.</p> <p>Present a report of their findings through writing, display and presentation.</p> <p>Interpret and construct pie charts and line graphs. (Maths Statistics)</p>

Considering Evidence and Evaluating

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
To talk about things they have found out.	To begin to say what happened in my investigation and whether I was surprised at the results or not.	<p>Talk about what they have found out and how they found it out.</p> <p>To say what happened in my investigation, whether I was surprised at the results or not and what I would change about my investigation.</p>	Can explain what they have found out and use measurements to say whether it answers their question.	<p>Find patterns in evidence or measurements.</p> <p>Evaluate and communicate methods and findings.</p> <p>Make a prediction based on something they have found out.</p> <p>Ask further questions based on data and observations.</p> <p>Evaluate what they have found using scientific language, drawings, labelled diagrams, tables, scatter graphs, bar graphs and line graphs.</p> <p>Identify differences similarities or changes related to simple scientific ideas or processes.</p>	<p>Use a graph to answer scientific questions.</p> <p>Present a report of their findings through writing, display and presentation.</p>	<p>Find a pattern from data and explain what it shows.</p> <p>Can use a graph to answer scientific questions.</p> <p>Link what they have found to other science.</p> <p>Suggest how to improve their work and say why they think so.</p> <p>Record more complex data and results using scientific diagrams, classification keys, tables, bar charts, pie charts and line graphs and models.</p> <p>Draw conclusions from their work.</p> <p>Report findings from investigations through written explanations and conclusions using appropriate scientific language.</p>

Vocabulary

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Begin to use some new words about the word around them.</p>	<p>Pupils should read and spell scientific vocabulary at a level consistent with their increasing word and spelling knowledge.</p> <p>Refer to and use specific scientific vocabulary for their year group.</p>		<p>Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and knowledge skills.</p> <p>Refer to and use specific scientific vocabulary for their year group.</p>		<p>Pupils should read, spell and pronounce scientific vocabulary correctly.</p> <p>Refer to and use specific scientific vocabulary for their year group.</p>	