

Working Scientifically Skills

	Year 1 (Beginning to)	Year 2	Year 3 (Beginning to)	Year 4	Year 5 (Beginning to)	Year 6
Questioning and enquiring Planning	<p>I can ask simple questions about the world around us.</p> <p>I can use different types of enquiry to answer questions.</p> <p>I can use observations and ideas to suggest answers to questions.</p>		<p>I can ask some relevant questions about the world around us.</p> <p>I can use some different types of scientific enquiry to answer questions.</p>		<p>I can explore ideas & ask my own questions about scientific phenomena.</p> <p>I can plan different types of scientific enquiry to answer questions.</p> <p>I can decide which variables to control.</p>	
Observing and measuring Pattern seeking	<p>I can observe closely.</p> <p>I can observe changes over time.</p> <p>I can say what I am looking for and what I am measuring.</p> <p>I can measure with nonstandard units and can use simple standard units.</p> <p>I can use simple equipment e.g. hand lenses, egg timers.</p> <p>I am beginning to notice patterns.</p>		<p>I can make systematic & careful observations.</p> <p>I can decide what to observe and how long to collect observations.</p> <p>I can take accurate measurements using standard units e.g. mm, cm, m, ml, l, °C, seconds, minutes,</p> <p>I can decide which equipment to use and can use new equipment e.g. data loggers.</p> <p>I can look for patterns and relationships.</p>		<p>I can make accurate & precise measurements.</p> <p>I can decide what to observe, how long to observe for and whether to repeat them.</p> <p>I can take accurate & precise measurements using standard units N, g, kg, mm, cm, mins, seconds, cm²V, km/h, m per sec, m/ sec.</p> <p>I can select equipment on my own & can explain how to use it accurately.</p>	
Investigating	<p>I can perform simple tests.</p> <p>I can discuss my ideas.</p> <p>I can say what happened in an investigation.</p>		<p>I can set up simple practical enquiries. (including comparative and fair tests.)</p> <p>I can help decide which variables to keep the same and which to change.</p>		<p>I can set up a range of comparative and fair tests.</p> <p>I can explain which variables need to be controlled and why.</p> <p>I can suggest improvements to my test, giving reasons.</p>	
Recording and reporting findings	<p>I can collect simple data.</p> <p>I can record data in a table my teacher has provided.</p>		<p>I can collect data in a variety of ways, including labelled diagrams, bar charts and tables.</p> <p>I can help decide how to record data.</p>		<p>I can record data and results of increasing complexity using – scientific diagrams and labels classification keys tables bar graphs line graphs</p>	

	I can communicate my findings in a variety of ways.	I can communicate findings using simple scientific language	I can choose how best to present data. I can communicate findings using detailed scientific language.
Identifying, grouping and classifying	I can identify a variety of objects, materials and living things. I can compare, sort and group a range of objects, materials and living things	I can talk about and identify differences and similarities in the properties or behaviour of living things, materials and other scientific phenomena. I can identify simple changes related to simple scientific phenomena. I can discuss criteria for grouping and sorting and can classify using simple keys.	I can use keys and other information records to classify and describe living things, materials and other scientific phenomena. I can develop my own keys and other information records to classify and describe. I can identify changes related to scientific phenomena.
Research	I can find information to help me from books, computers and other familiar sources.	I can decide when research will help in my enquiry. I can carry out simple research on my own.	I can recognise which secondary source will be most useful to my research. I can carry out research independently.
Conclusions	I can talk about what I have found out. I can explain how I carried out my enquiry.	I can draw simple conclusions based on the results of my enquiry. I can answer my questions using the results of my enquiry. I can use my findings to make new predictions, suggest improvements and think of new questions. I can think of cause and effect in my explanations.	I can draw scientific, causal conclusions using the results of an enquiry to justify my ideas. I can explain my conclusion using scientific knowledge and understanding. I can distinguish opinion and facts. I can use my findings to make predictions and set up further enquiries I can use abstract models to explain my ideas.
Vocabulary	I can use simple scientific language. I can describe what I see.	I can use some scientific language in my work. I can describe my observations and my findings.	I can read, spell and pronounce scientific vocabulary correctly.

	<p>I can compare e.g. something is longer or shorter.</p>	<p>I can use comparative and superlative descriptions e.g. longer / shorter than, longest / shortest.</p> <p>I can describe cause and effect.</p>	<p>I can confidently use the correct scientific language when appropriate.</p> <p>I can explain my ideas with scientific reasons.</p> <p>I can use scientific conventions e.g. trends, rogue result, support prediction.</p>
<p>Understanding</p>	<p>I can say how science helps us in our daily lives.</p> <p>I can say how science can be dangerous e.g. electricity can give you a shock.</p>	<p>I know some things in science which have made our lives better e.g. computers in schools, hospitals etc</p> <p>I understand there is some risk in science.</p>	<p>I can see how science is useful in lots of different ways.</p> <p>I can say which parts of our lives rely on science.</p> <p>I can explain the positive and negative effects of scientific developments.</p>