



Skills Breakdown for Working Scientifically

Year 1			
Observing closely	Performing Tests	Identifying and Classifying	Recording findings
<ul style="list-style-type: none"> • I can talk about what I see, touch, smell, hear or taste • I can use simple equipment to help make observations 	<ul style="list-style-type: none"> • I can perform a simple test • I can tell other people about what I have done 	<ul style="list-style-type: none"> • I can identify and classify things I observe • I can think of some questions to ask • I can answer some scientific questions • I can give a simple reason for my answers • I can explain what I have found out 	<ul style="list-style-type: none"> • I can show my work using pictures, labels and captions • I can record my finding using standard units • I can put some information in a chart or table
Year 1 (Greater Depth)			
Observing closely	Performing Tests	Identifying and Classifying	Recording findings
<ul style="list-style-type: none"> • I can find out by watching, listening, tasting, smelling and touching 	<ul style="list-style-type: none"> • I can give a simple reason for my answers 	<ul style="list-style-type: none"> • I can talk about similarities and differences • I can explain what I have found out using scientific vocabulary 	<ul style="list-style-type: none"> • I can use ICT to show my working • I can make accurate measurements

Year 2			
Observing closely	Performing Tests	Identifying and Classifying	Recording findings
<ul style="list-style-type: none"> • I can use my senses to help me answer questions • I can use some science words to describe what I have seen and measured • I can compare several things 	<ul style="list-style-type: none"> • I can carry out a simple fair test • I can explain why it might not be fair to compare two things • I can say whether things happened as I expected • I can suggest how to find things out • I can use prompts to find things out 	<ul style="list-style-type: none"> • I can organise things into groups • I can find simple patterns (or associations) • I can identify animals and plants by a specific criteria, eg, lay eggs or not; have feathers or not 	<ul style="list-style-type: none"> • I can use text, diagrams, pictures, charts, tables to record my observations • I can measure using simple equipment
Year 2 (Greater Depth)			
Observing closely	Performing Tests	Identifying and Classifying	Recording findings
<ul style="list-style-type: none"> • I can suggest ways of finding out through listening, hearing, smelling, touching and tasting 	<ul style="list-style-type: none"> • I can say whether things happened as I expected and if not why not 	<ul style="list-style-type: none"> • I can suggest more than one way of groupings animals and plants and explain my reasons 	<ul style="list-style-type: none"> • I can use information from books and online information to find things out

Year 3		
Planning	Obtaining and presenting evidence	Considering evidence and evaluating
<ul style="list-style-type: none"> • I can use different ideas and suggest how to find something out • I can make and record a prediction before testing • I can plan a fair test and explain why it was fair • I can set up a simple fair test to make comparisons • I can explain why I need to collect information to answer a question 	<ul style="list-style-type: none"> • I can measure using different equipment and units of measure • I can record my observations in different ways (labelled diagrams, charts etc) • I can describe what I have found using scientific words • I can make accurate measurements using standard units 	<ul style="list-style-type: none"> • I can explain what I have found out and use my measurements to say whether it helps to answer my question • I can use a range of equipment (including a data-logger) in a simple test
Year 3 (Greater Depth)		
Planning	Obtaining and presenting evidence	Considering evidence and evaluating
<ul style="list-style-type: none"> • I can record and present what I have found using scientific language, drawings, labelled diagrams, bar charts and tables 	<ul style="list-style-type: none"> • I can explain my findings in different ways (display, presentation, writing) • I can use my findings to draw a simple conclusion • I can suggest improvements and predictions for further tests 	<ul style="list-style-type: none"> • I can suggest how to improve my work if I did it again

Year 4		
Planning	Obtaining and presenting evidence	Considering evidence and evaluating
<ul style="list-style-type: none"> • I can set up a simple fair test to make comparisons • I can plan a fair test and isolate variables and explain why it was fair and explain which variables have been isolated • I can suggest improvements and predictions • I can decide which information needs to be collected and decide which is the best way for collecting it • I can use my findings to draw a simple conclusion 	<ul style="list-style-type: none"> • I can take measurements using different equipment and units of measure and record what I have found in a range of ways • I can make accurate measurements using standard units • I can explain my findings in different ways (display, presentation, writing) 	<ul style="list-style-type: none"> • I can find any patterns in my evidence or measurements • I can make a prediction based on something I have found out • I can record and present what I have found using scientific language, drawings, labelled diagrams, bar charts and tables
Year 4 (Greater Depth)		
Planning	Obtaining and presenting evidence	Considering evidence and evaluating
<ul style="list-style-type: none"> • I can plan and carry out an investigation by controlling variables fairly and accurately • I can use test results to make further predictions and set up further comparative tests 	<ul style="list-style-type: none"> • I can record more complex data and results using scientific diagrams, classification keys, tables, bar charts, line graphs and models 	<ul style="list-style-type: none"> • I can report findings from investigations through written explanations and conclusions • I can use a graph or diagram to answer scientific questions

Year 5		
Planning	Obtaining and presenting evidence	Considering evidence and evaluating
<ul style="list-style-type: none"> • I can plan and carry out an investigation by controlling variables fairly and accurately • I can make a prediction with reasons • I can use test results to make further predictions and set up further comparative tests • I can present a report of my findings through writing, display and presentation 	<ul style="list-style-type: none"> • I can take measurements using a range of scientific equipment with increasing accuracy and precision • I can record more complex data and results using scientific diagrams, classification keys, tables, bar charts, line graphs and models 	<ul style="list-style-type: none"> • I can report findings from investigations through written explanations and conclusions • I can use a graph to answer scientific questions
Year 5 (Greater Depth)		
Planning	Obtaining and presenting evidence	Considering evidence and evaluating
<ul style="list-style-type: none"> • I can explore different ways to test an idea and choose the best way, and give reasons • I can vary one factor whilst keeping the others the same in an experiment • I can use information to help make a prediction • I can explain (in simple terms) a scientific idea and what evidence supports it 	<ul style="list-style-type: none"> • I can decide which units of measurement I need to use • I can explain why a measurement needs to be repeated 	<ul style="list-style-type: none"> • I can find a pattern from my data and explain what it shows • I can link what I have found out to other science • I can suggest how to improve my work and say why I think this

Year 6		
Planning	Obtaining and presenting evidence	Considering evidence and evaluating
<ul style="list-style-type: none"> • I can explore different ways to test an idea and choose the best way, and give reasons • I can vary one factor whilst keeping the others the same in an experiment I can explain why I do this • I can plan and carry out an investigation by controlling variables fairly and accurately • I can make a prediction with reasons <ul style="list-style-type: none"> • I can use information to help make a prediction • I can use test results to make further predictions and set up further comparative tests <ul style="list-style-type: none"> • I can explain (in simple terms) a scientific idea and what evidence supports it • I can present a report of my findings through writing, display and presentation 	<ul style="list-style-type: none"> • I can explain why I have chosen specific equipment (incl ICT based equipment) • I can decide which units of measurement I need to use • I can explain why a measurement needs to be repeated <ul style="list-style-type: none"> • I can record my measurements in different ways (incl bar charts, tables and line graphs) • I can take measurements using a range of scientific equipment with increasing accuracy and precision 	<ul style="list-style-type: none"> • I can find a pattern from my data and explain what it shows • I can use a graph to answer scientific questions • I can link what I have found out to other science • I can suggest how to improve my work and say why I think this • I can record more complex data and results using scientific diagrams, classification keys, tables, bar charts, line graphs and models • I can report findings from investigations through written explanations and conclusions
Year 6 (Greater Depth)		
Planning	Obtaining and presenting evidence	Considering evidence and evaluating
<ul style="list-style-type: none"> • I can choose the best way to answer a question • I can use information from different sources to answer a question and plan an investigation <ul style="list-style-type: none"> • I can make a prediction which links with other scientific knowledge • I can identify the key factors when planning a fair test • I can explain how a scientist has used my scientific understanding 	<ul style="list-style-type: none"> • I can plan in advance which equipment I will need and use it well • I can make precise measurements • I can collect information in different ways • I can record my measurements and observations systematically • I can explain qualitative and quantitative data 	<ul style="list-style-type: none"> • I can draw conclusions from my work • I can link my conclusions to other scientific knowledge • I can explain how I could improve my way of working

plus good ideas to have a breakthrough		
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