



St John's Highbury Vale C of E Primary School

Conewood Street, London N5 1DL

Tel: 020 7226 4906

E-mail: admin@stjhv.islington.sch.uk

Head of School: Mrs Lindsey Hodgson

Executive Head: Mrs Tonnie Read

Knowledge, Skills and Understanding breakdown for Working Scientifically

Year 1

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





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Year 2

Observing Closely	Performing Tests	Identifying and Classifying	Recording Findings
<ul style="list-style-type: none"> Can they talk about what they <see, touch, smell, hear, or taste> to help them answer questions? Can they use some science words to describe what they have seen and measured? Can they compare several things? 	<ul style="list-style-type: none"> Can they carry out a simple fair test? Can they explain why it might not be fair to compare two things? Can they say whether things happened as they expected? Can they suggest how to find things out? Can they use prompts to find things out? 	<ul style="list-style-type: none"> Can they organise things into groups? Can they find simple patterns (or associations)? Can they identify animals and plants by a specific criteria, e.g. lay eggs or not; have feathers or not? 	<ul style="list-style-type: none"> Can they use (text, diagrams, pictures, chart and tables) to record their observations? Can they measure using <simple equipment>?
Year 2 (Challenging)			
Observing Closely	Performing Tests	Identifying and Classifying	Recording Findings
<ul style="list-style-type: none"> Can they suggest ways of finding out through listening, hearing, smelling, touching and tasting? 	<ul style="list-style-type: none"> Can they say whether things happened as they expected and if not, why not? 	<ul style="list-style-type: none"> Can they suggest more than one way of grouping animals and plants and explain their reasons? 	<ul style="list-style-type: none"> Can they use information from books and online information to find things out?





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Knowledge, Skills and Understanding breakdown for Working Scientifically Year 3

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





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Knowledge, Skills and Understanding breakdown for Working Scientifically Year 4

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





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Knowledge, Skills and Understanding breakdown for Working Scientifically Year 5

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





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Knowledge, Skills and Understanding breakdown for Working Scientifically

Year 6

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

