Allendale Primary School Science Skills Progression

Key area	Year group	Skills	Greater Depth
Observing closely	EYFS	Through provision, focus groups and with adult support, can children… • Discuss what they can see, touch, smell, hear or taste? • Use simple equipment to help them make observations?	• Can they find out by watching, listening, tasting, smelling and touching?
	Year 1	• Can they discuss what they can see, touch, smell, hear or taste? • Can they use simple equipment to help them make observations?	• Can they find out by watching, listening, tasting, smelling and touching?
	Year 2	• Can they use (see, touch, smell, hear or taste) to help them answer questions? • Can they use some scientific words to describe what they have seen and measured? • Can they compare several things?	• Can they suggest ways of finding out through listening, hearing, smelling, touching and tasting?
Performing tests	EYFS	Through provision, focus groups and with adult support, can children… • Can they perform a simple test? • Can they describe/ explain what they have done?	• Can they give reasons for their answers?
	Year 1	• Can they perform a simple test? • Can they describe/ explain what they have done?	• Can they give reasons for their answers?
	Year 2	• 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?	• Can they say whether things happened as they expected and if not why not?
Ide	EYFS	Through provision, focus groups and with adult support, can children…	• Can they discuss similarities and differences?

ntifyingandclassifying		• 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?	• Can they explain what they have found out using scientific vocabulary?
	Year 1	• 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?	• Can they discuss similarities and differences? • Can they explain what they have found out using scientific vocabulary?
	Year 2	• Can they organise things into groups? • Can they find simple patterns (or associations)? • Can they identify animals and plants by a specific criteria, eg, lay eggs or not; have feathers or not?	• Can they suggest more than one way of grouping animals and plants and explain their reasons?
Recordingfindings	EYFS	Through provision, focus groups and with adult support, can children… • Can they show their work using pictures, labels and captions? • Can they record their findings using standard units? • Can they record some information in a chart or table, or using ICT?	• Can they make accurate measurements?
	Year 1	• Can they show their work using pictures, labels and captions? • Can they record their findings using standard units? • Can they record some information in a chart or table, or using ICT?	• Can they make accurate measurements?
	Year 2	• Can they use (text, diagrams, pictures, charts, tables) to record their observations? • Can they measure using (simple equipment)?	• Can they use information from books and online information to find things out?

Types of investigations	EYFS		
	Year 1 Year 2	Children should have the opportunity to investigate: ● Observing changes over time ● Noticing similarities, differences and patterns. ● Grouping and classifying. ● Carrying our comparative tests. ● Finding things out using secondary sources of information	● Can they begin to independently consider controlling variables to create a fair test?
	Year 3	● Children should have the opportunity to investigate ● Observing changes over different periods of time ● Noticing patterns ● Grouping and classifying ● Carrying out comparative and fair tests ● Finding things out using secondary resources	
	Year 4	Children should have the opportunity to investigate: ● Observing changes over different periods of time ● Noticing patterns ● Grouping and classifying ● Carrying out comparative and fair tests ● Finding things out using secondary resources	● Can they use a range of variables to investigate?
	Year 5 Year 6	Children should have the opportunity to investigate through: ● Recognising and controlling variables accurately and fairly, including changes over different periods of time ● Noticing patterns, groupings and classifying ● Carrying out comparative and fair tests ● Finding things out using a wide range of secondary sources.	
Planni	Year 3	● Can they use different ideas and suggest how to find something out? ● Can they make and record a prediction before testing?	● Can they record and present what they have found using scientific language, drawings, labelled diagrams, bar charts and tables?

n g		• 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?	
	Year 4	• Can they plan and set up a fair test and isolate variables, explaining why it was fair and which variables have been isolated? • Can they suggest improvements and predictions? • Can they ask their own questions? • 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?	• 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?
	Year 5	• Can they plan and carry out a scientific enquiry to answer questions, including recognising and controlling variables where necessary? • Can they make a prediction with reasons? • Can they use test results to make predictions to set up comparative and fair tests?	• Can they explore different ways to test an idea, 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?
	Year 6	• Can they explore different ways to test an idea, choose the best way, and give reasons? • Can they identify the key factors when planning a fair test? • Can they vary one factor whilst keeping the others the same in an experiment? Can they explain why they do this? • Can they use information to make a prediction and give reasons for it? • 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 choose the best way to answer a question and use information from different sources to plan an investigation? • Can they make a prediction which links with other scientific knowledge?

Obtaining and presenting evidence	Year 3	• Can they take accurate measurements 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 language?	• Can they explain their findings in different ways (display, presentation, writing)? • Can they use their findings to draw a simple conclusion? • Can they suggest improvements and predictions for further tests?
	Year 4	• Can they take measurements using different equipment and units of measure and record what they have found in a range of ways? • Can they use a range scientific equipment's to take accurate measurements or readings? • Can they explain their findings in different ways (display, presentation, writing)? • Can they record data using diagrams, labels, classification keys, tables, scatter graphs, bar graphs and line graphs?	• Can they record more complex data and results using scientific diagrams, classification keys, tables, bar charts, line graphs and models?
	Year 5	• Can they take measurements using a range of scientific equipment with increasing accuracy and precision? • Can they take repeat readings when appropriate? • Can they record more complex data and results using scientific diagrams, labels, classification keys, table, scatter graphs, bar and line graphs?	• Can they decide which units of measurement they need to use? • Can they explain why a measurement needs to be repeated?
	Year 6	• 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 make precise measurements? • 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 plan which equipment they will need and use it effectively? • Can they explain qualitative and quantitative data?

		• Can they read and record measurements systematically using a range of scientific equipment with increasing accuracy and precision? • Can they present a report of their findings through writing, display and presentation?	
Considering evidence and evaluating	Year 3	• Can they explain their findings in different ways (display, presentation, writing)? • Can they use their findings to draw a simple conclusion? • Can they suggest improvements and predictions for further tests?	• Can they suggest how to improve their work if they did it again?
	Year 4	• Can they find any patterns in their evidence or measurements? • Can they evaluate and communicate their methods and findings? • Can they make a prediction based on something they have found out? • Can they ask further questions based on their data and observations? • Can they evaluate what they have found using scientific language, drawings, labelled diagrams, bar charts and tables? • Can they identify differences, similarities or changes related to simple scientific ideas or processes?	• Can they report findings from investigations through written explanations and conclusions? • Can they use a graph or diagram to answer scientific questions?
	Year 5	• Can they use a graph to answer scientific questions? • Can they present a report of their findings through writing, display and presentation?	• 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?
	Year 6	• Can they find a pattern from their data and explain what it shows? • Can they use a graph to answer scientific questions?	• Can they identify scientific evidence that has been used to support or to refute ideas or arguments and link their conclusions to it?

		● 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 draw conclusions from their work? ● Can they report findings from investigations through written explanations and conclusions using appropriate scientific language?	● Can they explain how they could improve their way of working? ● Can they report and present 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?