Stamshaw Junior School

Progression Document: Science

	Year 1 and 2	Year 3	Year 4	Year 5	Year 6
Asking questions and carrying out fair and comparative tests	KS1 Asking simple questions and recognising that they can be answered in different ways. Performing simple tests.	LKS2 Asking relevant questions and using different types of scientific enquiries to answer them. Setting up simple practical enquiries, comparative and fair tests.		UKS2 Planning different types of scientific enquiries to answer questions, including recognising, and controlling variables where necessary. Using test results to make predictions to set up further comparative and fair tests.	
	- explore the world around them, leading them to ask some simple scientific questions about how and why things happen - begin to recognise ways in which they might answer scientific questions - ask people questions and use simple secondary sources to find answers - carry out simple practical tests, using simple equipment - experience different types of scientific enquiries, including practical activities - talk about the aim of scientific tests they are working on.	- start to raise their own relevant questions about the world around them in response to given scientific experiences - start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions - recognise when a fair test is necessary - set up and carry out simple comparative and fair tests	- raise their own relevant questions about the world around them in response to a range of scientific experiences - make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions - recognise when a fair test is necessary -set up and carry out simple comparative and fair tests - help decide how to set up a fair test, making decisions about what observations to make, how long to make them for and the type of simple equipment that might be used	- with growing independence, raise their own relevant questions about the world around them in response to a range of scientific experiences - with increasing independence, make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions - explore and talk about their ideas, raising different kinds of scientific questions - ask their own questions about scientific phenomena - select and plan the most appropriate type of scientific enquiry to use to answer scientific questions - make their own decisions about what observations to make, what measurements to use and how long to make them for, and whether to repeat them - plan, set up and carry out comparative and fair tests to answer questions, including recognising and controlling variables where necessary - use test results to make predictions for further tests	- independently raise their own relevant questions about the world around them in response to a range of scientific experiences - make their own decisions about the most appropriate type of scientific enquiry they will use to answer questions - explore and talk about their ideas, raising different kinds of scientific questions, asking their own questions about scientific phenomena - select and plan the most appropriate type of scientific enquiry to use to answer scientific questions - use their test results to identify when further tests and observations may be needed - make their own decisions about what observations to make, what measurements to use and how long to make them for, and whether to repeat them - plan, set up and carry out comparative and fair tests to answer questions, including recognising and controlling variables where necessary - use test results to make predictions for further tests

Stamshaw Junior School

Progression Document: Science

	Year 1 and 2	Year 3	Year 4	Year 5	Year 6
Observing and measuring changes	KS1 Observing closely, using simple equipment.	LKS2 Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.		UKS2 Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	
	- observe the natural and humanly constructed world around them - observe changes over time - use simple measurements and equipment - make careful observations, sometimes using equipment to help them observe carefully.	- begin to make systematic and careful observations - observe changes over time - use a range of equipment, including thermometers and data loggers - where appropriate, take accurate measurements using standard units using a range of equipment	- make systematic and careful observations -observe changes over time and record/measure - use a range of equipment, including thermometers and data loggers - ask their own questions about what they observe - take accurate measurements using standard units using a range of equipment	- choose the most appropriate equipment to make measurements and explain how to use it accurately - take measurements using a range of scientific equipment - make careful and focused observations - understand the importance of taking repeat readings and take repeat readings where appropriate	- choose the most appropriate equipment to make measurements and explain how to use it accurately - take measurements using a range of scientific equipment with increasing accuracy and precision - make careful and focused observations, repeating where necessary to ensure accuracy - know the importance of taking repeat readings and take repeat readings where appropriate

Stamshaw Junior School

Progression Document: Science

	Year 1 and 2	Year 3	Year 4	Year 5	Year 6
Identifying, classifying, recording and presenting data	KS1 Identifying and classifying. Gathering and recording data to help in answering questions.	LKS2 Gathering, recording, classifying, and presenting data in a variety of ways to help in answering questions. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.		UKS2 Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar, and line graphs.	
	- use simple features to compare objects, materials and living things - decide how to sort and classify objects into simple groups with some help - record and communicate findings in a range of ways with support - sort, group, gather and record data in a variety of ways to help in answering questions such as in simple sorting diagrams, pictograms, tally charts, block diagrams and simple tables	- talk about criteria for grouping, sorting, and classifying - group and classify things - collect data from their own observations and measurements - present data in a given way to help in answering questions - use, read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge - record findings using scientific language, drawings, labelled diagrams, keys, bar charts and tables	- identify criteria for grouping, sorting, and classifying - group and classify things - collect data from their own observations and measurements - present data in a variety of ways to help in answering questions - use, read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge - record findings using scientific language, drawings, labelled diagrams, keys, bar charts and tables	- independently group, classify and describe living things and materials - use and develop keys and other information records to identify, classify and describe living things and materials - decide how to record data from a choice of familiar approaches - record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar graphs and line graphs	- independently group, classify and describe living things and materials - use and develop keys and other information records to identify, classify and describe living things and materials - confidently record data from a choice of familiar approaches - record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar graphs and line graphs

Stamshaw Junior School

Progression Document: Science

	Year 1 and 2	Year 3	Year 4	Year 5	Year 6
Drawing conclusions, noticing patterns and presenting findings	KS1 Using their observations and ideas to suggest answers to questions.	LKS2 Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.		UKS2 Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations.	
	- notice links between cause and effect with support - begin to notice patterns and relationships with support - begin to draw simple conclusions - identify and discuss differences between their results - use simple and scientific language - read and spell scientific vocabulary at a level consistent with their increasing word reading and spelling knowledge at key stage 1 - talk about their findings to a variety of audiences in a variety of ways	- draw simple conclusions from their results - make simple prediction -begin to suggest improvements to investigations - raise further questions which could be investigated - first talk about, and then go on to write about, what they have found out - report and present their results and conclusions to others in written and oral forms with increasing confidence	- draw simple conclusions from their results -make prediction - suggest improvements to investigations - raise further questions which could be investigated -write about findings from an investigation - report and present their results and conclusions to others in written and oral forms	- notice patterns - draw conclusions based in their data and observations - use their scientific knowledge and understanding to explain their findings - read, spell, and pronounce scientific vocabulary correctly - identify patterns that might be found in the natural environment - look for different causal relationships in their data - discuss the degree of trust they can have in a set of results - independently report and present their conclusions to others in oral and written forms.	- notice patterns - draw conclusions based in their data and observations -use their scientific knowledge and understanding to explain their findings - read, spell, and pronounce scientific vocabulary correctly - identify patterns that might be found in the natural environment - look for different causal relationships in their data - discuss the degree of trust they can have in a set of results - independently report and present their conclusions to others in written forms

Stamshaw Junior School

Progression Document: Science

	Year 1 and 2	Year 3	Year 4	Year 5	Year 6
Using scientific evidence and secondary sources of information	KS1 -	LKS2 Identifying differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions or to support their findings.		UKS2 Identifying scientific evidence that has been used to support or refute ideas or arguments.	
	-	- begin to select the most appropriate equipment to make measurements and explain how to use it - take measurements using a range of scientific equipment with increasing accuracy and precision - make careful and focused observations	- choose the most appropriate equipment to make measurements and explain how to use it accurately - take measurements using a range of scientific equipment with increasing accuracy and precision - make careful and focused observations - know the importance of taking repeat readings and take repeat readings where appropriate	- use primary and secondary sources evidence to justify ideas - identify evidence that refutes or supports their ideas-recognise where secondary sources will be most useful to research ideas and begin to separate opinion from fact - use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas - talk about how scientific ideas have developed over time.	- use primary and secondary sources evidence to justify ideas - identify evidence that refutes or supports their ideas-recognise where secondary sources will be most useful to research ideas and begin to separate opinion from fact - use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas - talk about how scientific ideas have developed over time.