Sir Alexander Fleming Primary School

Progression of skills - Science

Areas of learning	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Animals Animals, including humans Evolution and Inheritance	Asking simple questions, use secondary sources and recognising that they can be answered in different ways e.g. *observations, results from simple tests, researching animals* Observing closely, using simple equipment and with help observe changes over time e.g. *magnifying glasses & egg timers.* Performing simple tests e.g. *sense of smell test, who's poo test,* Identifying and classifying e.g. *animal groups* Using their observations and ideas to suggest answers to questions e.g. *discuss what they can see, touch, smell, hear or taste to observe* Gathering and recording data to help in answering questions using simple scientific language e.g. *Create a chart to record some class data to find the amounts of fruit/veg eaten for a week.*	Asking simple questions, use secondary sources and recognising that they can be answered in different ways e.g. *observations, data, results from simple tests, researching animals* Observing closely, using simple equipment and with help observe changes over time e.g. *magnifying glasses & egg timers.* Performing simple tests (Fair/comparative) e.g. *bread experiment linked to hygiene* Identifying and classifying e.g. *animal groups organising into groups, find simple patterns.* Using their observations and ideas to suggest answers to questions e.g. *using their senses* Gathering and recording data to help in answering questions using simple scientific language e.g. *Create a chart, table, diagram etc.. to record class data to find the amounts of fruit/veg eaten for a week.*	Asking relevant questions and using different types of scientific enquiries to answer them Setting up simple practical enquiries, comparative and fair tests Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers 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 Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions Identifying differences, similarities or changes related to simple scientific ideas and processes Using straightforward scientific evidence to answer questions or to support their findings.	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Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Using test results to make predictions to set up further comparative and fair tests. Reporting and presenting 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. Identifying scientific evidence that has been used to support or refute ideas or arguments.	Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. 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Materials Rocks (Y3)	Name, discuss and raise and answer questions about everyday materials so that they become familiar with the names of materials and properties such as e.g. *hard/soft; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof* Observing closely, using simple equipment *e.g. magnifying glasses & egg timers.* Performing simple tests e.g. *testing which materials are waterproof, the strongest* Identifying and classifying e.g. *materials according to their properties* Using their observations and ideas to suggest answers to questions e.g. *discuss what they can see, touch, smell, hear or taste to observe* Gathering and recording data to help in answering questions using simple scientific language e.g. *from experiments using pictures, labels, captions and a simple chart, table or IT.*	Asking simple questions, use secondary sources & recognise that they can be answered in different ways e.g. *observations, data, results from simple tests, researching significant people using IT & books* Observing closely, using simple equipment *e.g. magnifying glasses & egg timers.* Performing simple tests e.g. *testing which materials are waterproof, the strongest* Identifying and classifying e.g. *materials according to their properties* Using their observations and ideas to suggest answers to questions e.g. *using their senses* Gathering and recording data to help in answering questions using simple scientific language. e.g. *Create a chart, table, diagram etc. to record class data to find the amounts of fruit/veg eaten for a week.*	Asking relevant questions and using different types of scientific enquiries to answer them Setting up simple practical enquiries, comparative and fair tests Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers 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 Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions Identifying differences, similarities or changes related to simple scientific ideas and processes Using straightforward scientific evidence to answer questions or to support their findings.	Asking relevant questions and using different types of scientific enquiries to answer them. Setting up simple practical enquiries, comparative and fair tests. Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment. 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. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Identifying differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions to support their findings.	Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Using test results to make predictions to set up further comparative and fair tests. Reporting and presenting 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. Identifying scientific evidence that has been used to support or refute ideas or arguments.	
Plants Living things and their habitats	Asking simple questions, use secondary uses and recognise that they can be answered in different ways e.g. *Talk about what they found out and how they found it, books, IT* Observing closely, using simple equipment *e.g. magnifying glasses to observe a variety of plants, seeds, petals, leaves*	Asking simple questions, use secondary uses and recognise that they can be answered in different ways e.g. *Talk about what they found out and how they found it, books, IT* Observing closely, using simple equipment *e.g. magnifying glasses & egg timers.* Performing simple tests e.g. *Can plants survive without*	Asking relevant questions and using different types of scientific enquiries to answer them Setting up simple practical enquiries, comparative and fair tests Making systematic and careful observations and, where appropriate, taking accurate measurements using standard	Asking relevant questions and using different types of scientific enquiries to answer them. Setting up simple practical enquiries, comparative and fair tests. Making systematic and careful observations and, where appropriate, taking accurate measurements using standard	Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.

	Comparing and contrasting familiar plants using simple scientific language e.g. petals, leaf, bulb, flower, seed, stem & root. Identifying and classifying e.g. *simple groups of fruits & flowers* Using their observations and ideas to suggest answers to questions e.g. *discuss what they can see, touch, smell, hear or taste to observe* Gathering and recording data to help in answering questions using simple scientific language e.g. *through a simple seasons chart.*	*water? Carry out a fair and or comparative experiments.* Identifying and classifying e.g. *living and dead things* Using their observations and ideas to suggest answers to questions e.g. *senses, scientific language, make comparisons* Gathering and recording data to help in answering questions using simple scientific language e.g. *Create a chart, table, diagram etc. to record class data to find the amounts of fruit/veg eaten for a week.*	units, using a range of equipment, including thermometers and data loggers 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 Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions Identifying differences, similarities or changes related to simple scientific ideas and processes Using straightforward scientific evidence to answer questions or to support their findings.	units, using a range of equipment. 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. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Identifying differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions to support their findings.	Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Using test results to make predictions to set up further comparative and fair tests. Reporting and presenting 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. Identifying scientific evidence that has been used to support or refute ideas or arguments.	Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Using test results to make predictions to set up further comparative and fair tests. Reporting and presenting 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. Identifying scientific evidence that has been used to support or refute ideas or arguments.
Weather	Observe and talk about changes in the weather and the seasons. Gathering and recording data to help in answering questions using simple scientific language. e.g *making simple tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change.*					
Forces & Magnets			Asking relevant questions and using different types of scientific enquiries to answer them Setting up simple practical enquiries, comparative and fair tests Making systematic and careful observations and, where appropriate, taking accurate		Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	

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Light Space (Y5)			Asking relevant questions and using different types of scientific enquiries to answer them Setting up simple practical enquiries, comparative and fair tests Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions Recording findings using simple scientific language, drawings,		Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Using test results to make predictions to set up further comparative and fair tests. Reporting and presenting findings from enquiries,	Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Using test results to make predictions to set up further comparative and fair tests. Reporting and presenting findings from enquiries,

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Electricity				Asking relevant questions and using different types of scientific enquiries to answer them. Setting up simple practical enquiries, comparative and fair tests. Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment. 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. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.		Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Using test results to make predictions to set up further comparative and fair tests. Reporting and presenting 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. Identifying scientific evidence that has been used to support or refute ideas or arguments.

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Sound				Asking relevant questions and using different types of scientific enquiries to answer them. Setting up simple practical enquiries, comparative and fair tests. Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment. 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. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Identifying differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions to support their findings.		