Subject Overview and Progression of Skills- Scientific Enquiry

	AUTUMN		SPRING		SUMMER	
Year 3	Animals including Humans •I can ask questions and use different types of scientific enquiries to answer them. •I can gather, record, classify and present data in a variety of ways to help in answering questions (Food plate/pyramid). •I can record findings using simple scientific language, drawings and labelled diagrams. •I can report on findings from enquiries, including spoken and written explanations and posters.		Forces and Magnets •I can ask questions and use different types of scientific enquiries to answer them. •I can set up simple practical enquiries, comparative and fair tests. •I can make observations and take measurements using standard units, using a range of equipment, including timers. •I can gather, record, classify and present data in a variety of ways to help in answering questions. •I can report on findings from enquiries, including spoken and written explanations, displays or presentations of results and conclusions. •I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. •I can explain differences, similarities or changes related to simple scientific ideas and processes. •I can use straightforward scientific evidence to answer questions or to support my findings.	Plants •I can ask questions and use different types of scientific enquiries to answer them. •I can set up simple practical enquiries, comparative and fair tests. •I can make observations and take measurements using standard units, using a range of equipment, including thermometers and data loggers. •I can gather, record, classify and present data in a variety of ways to help in answering questions. •I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. •I can report on findings from enquiries, including spoken and written explanations, displays or presentations of results and conclusions. •I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. •I can explain differences, similarities or changes related to simple scientific ideas and processes. •I can use straightforward scientific evidence to answer questions or to support my findings.	Rocks and Soils •I can ask questions and use different types of scientific enquiries to answer them. •I can set up simple practical enquiries, comparative and fair tests. •I can gather, record, classify and present data in a variety of ways to help in answering questions. •I can record findings using simple scientific language, drawings and labelled diagrams. •I can explain differences, similarities or changes related to simple scientific ideas and processes. •I can use straightforward scientific evidence to answer questions or to support my findings.	Light and Shadow •I can ask questions and use different types of scientific enquiries to answer them. •I can set up simple practical enquiries, comparative and fair tests. •I can make observations and take measurements using standard units, using a range of equipment to measure the size of shadows. •I can gather, record, classify and present data in a variety of ways to help in answering questions. •I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. •I can report on findings from enquiries, including spoken and written explanations, displays or presentations of results and conclusions. •I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. •I can explain differences, similarities or changes related to simple scientific ideas and processes. •I can use straightforward scientific evidence to answer questions or to support my findings.

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	AUTUMN		SPRING		SUMMER
Year 4	**Sound** •I can ask relevant questions and use different types of scientific enquiries to answer them. •I can set up practical enquiries, comparative and fair tests. •I can make systematic and careful observations and take accurate measurement using standard units, using a range of equipment, including data loggers for decibels. •I can gather, record, classify and present data in a variety of ways to help in answering questions. •I can record findings using simple scientific language, drawings, labelled diagrams, flow charts, bar charts and tables. •I can report on findings from enquiries, including spoken and written explanations, displays or presentations of results and conclusions. •I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. •I can identify differences, similarties or changes related to scientific ideas and processes. •I can use scientific evidence to answer questions or to support my findings.	**Changes of state** •I can ask relevant questions and use different types of scientific enquiries to answer them. •I can set up practical enquiries, comparative and fair tests. •I can make systematic and careful observations and take accurate measurement using standard units, using a range of equipment, including thermometers. •I can record findings using simple scientific language, drawings, labelled diagrams, (Water cycle diagram) keys, bar charts and tables . •I can report on findings from enquiries, including spoken and written explanations, displays or presentations of results and conclusions. •I can identify differences, similarities or changes related to scientific ideas and processes.	**Electricity** •I can ask relevant questions and use different types of scientific enquiries to answer them. •I can set up practical enquiries, comparative and fair tests. •I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. •I can identify differences, similarities or changes related to scientific ideas and processes. •I can use scientific evidence to answer questions or to support my findings.	**Human Nutrition** •I can ask relevant questions and use different types of scientific enquiries to answer them. •I can set up practical enquiries, comparative and fair tests. •I can make systematic and careful observations and take accurate measurement using standard units, using a range of equipment, including thermometers and data loggers. •I can gather, record, classify and present data in a variety of ways to help in answering questions. (Classifying prey and predators) •I can record findings using simple scientific language, drawings, labelled diagrams (food chains), keys, bar charts and tables.	**Grouping living things** •I can ask relevant questions and use different types of scientific enquiries to answer them. •I can set up practical enquiries, comparative and fair tests. •I can make systematic and careful observations and take accurate measurement using standard units, using a range of equipment, including thermometers and data loggers. •I can record findings using simple scientific language, drawings, labelled diagrams, flow charts, bar charts and tables. •I can report on findings from enquiries, including spoken and written explanations, displays or presentations of results and conclusions. •I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. •I can identify differences, similarities or changes related to scientific ideas and processes. •I can use scientific evidence to answer questions or to support my findings.

Subject Overview and Progression of Skills- Scientific Enquiry

	AUTUMN		SPRING		SUMMER	
Year 5	Materials •I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. •I can take measurements, using thermometers with increasing accuracy and recision, taking repeat findings when appropriate. •I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. •I can talk about and present findings from enquiries, including conclusions, causal relationships and explanations of how reliable the information is.	Forces •I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. •I can take measurements, using force metres and stopwatches, with increasing accuracy and recision, taking repeat findings when appropriate. •I can record data and results of increasing complexity using scientific diagrams and labels, bar and line graphs. •I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. •I can talk about and present findings from enquiries, including conclusions, causal relationships and explanations of how reliable the information is. •I can identify scientific evidence that has been used to support or refute ideas or arguments.	Grouping living things •I can ask relevant questions and use different types of scientific enquiries to answer them. •I can set up practical enquiries, comparative and fair tests. •I can make systematic and careful observations and take accurate measurement using standard units, using a range of equipment, including thermometers and data loggers. •I can record findings using simple scientific language, drawings, labelled diagrams, flow charts, bar charts and tables. •I can report on findings from enquiries, including spoken and written explanations, displays or presentations of results and conclusions. •I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. •I can identify differences, similarities or changes related to scientific ideas and processes. •I can use scientific evidence to answer questions or to support my findings. (Y4 20/21)	Living Things and their Habitats •I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. •I can record data and results of increasing complexity using scientific diagrams and labels, classification keys. •I can record data and results of increasing complexity using scientific diagrams and labels, gestation graphs and tables. •I can talk about and present findings from enquiries, including conclusions, causal relationships and explanations of how reliable the information is.	Earth and Space •I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. •I can take measurements, using a range of scientific equipment, with increasing accuracy and recision, taking repeat findings when appropriate (Shadow distances). •I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. •I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs (Sun rise and set times). •I can talk about and present findings from enquiries, including conclusions, causal relationships and explanations of how reliable the information is. •I can identify scientific evidence that has been used to support or refute ideas or arguments.	Animals including humans •I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. •I can take measurements, using a range of scientific equipment, with increasing accuracy and recision, taking repeat findings when appropriate (Height measurements). •I can record data and results of increasing complexity using scientific diagrams and labels, bar and line graphs. •I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. •I can talk about and present findings from enquiries, including conclusions, causal relationships and explanations of how reliable the information is.

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Subject Overview and Progression of Skills- Scientific Enquiry

	AUTUMN		SPRING		SUMMER
Year 6	**Living Things and Their Habitats** •I can group and classify things and recognise patterns. •I can use scientific language and ideas to explain, evaluate and communicate my methods and findings. •I can find things out using a wide range of secondary sources of information.	**Electricity** •I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. •I can use test results to make predictions to set up further comparative and fair tests.	**Light** •I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. •I can use test results to make predictions to set up further comparative and fair tests. •I can take accurate measurements, using a range of scientific equipment taking repeat readings when appropriate. •I can use scientific language and ideas to explain, evaluate and communicate my methods and findings. **Animals including Humans** •I can record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. •I can 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 display and other presentations. •I can describe and evaluate my own and other people's scientific ideas using evidence from a range of sources.	**Evolution and Inheritance** •I can 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 display and other presentations. •I can identify scientific evidence that has been used to support or refute ideas or arguments. •I can find things out using a wide range of secondary sources of information. •I can 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 display and other presentations. •I can use scientific language and ideas to explain, evaluate and communicate my methods and findings.	**Forces/Animals including humans** •I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. •I can take measurements, using force metres and stopwatches, with increasing accuracy and recision, taking repeat findings when appropriate. •I can record data and results of increasing complexity using scientific diagrams and labels, bar and line graphs. •I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. •I can talk about and present findings from enquiries, including conclusions, causal relationships and explanations of how reliable the information is. •I can identify scientific evidence that has been used to support or refute ideas or arguments. (Y5 20/21)