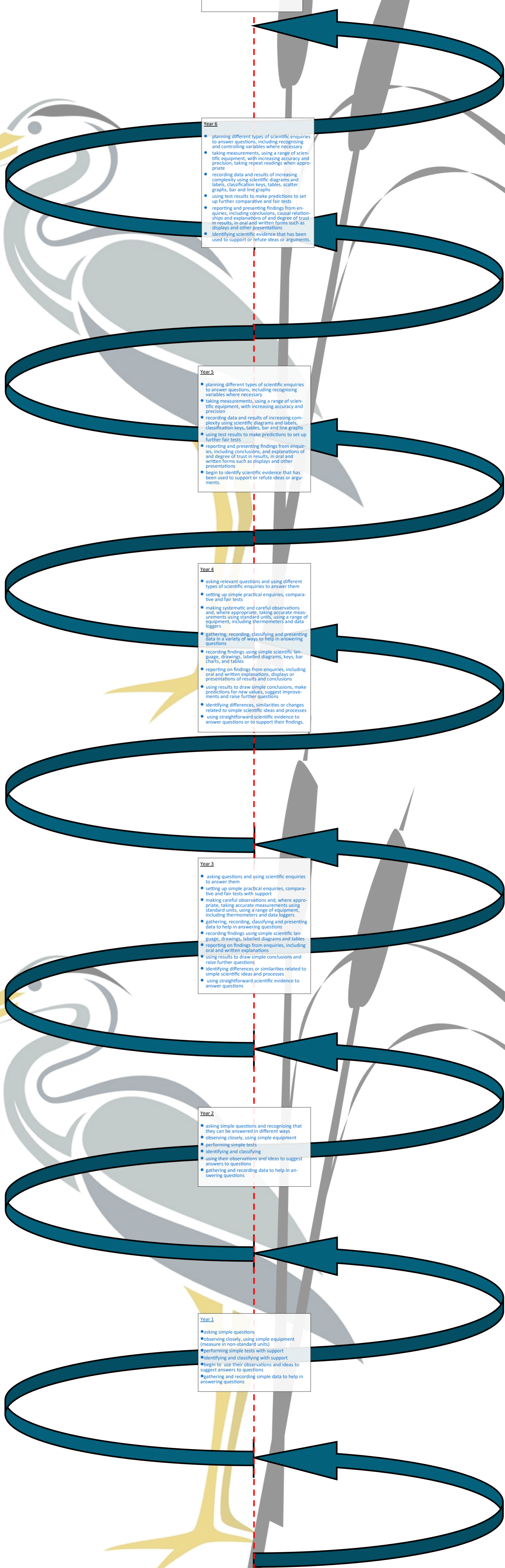


Progression in the Curriculum:

# SCIENTIFIC ENQUIRY

Scientific Enquiry fluid throughout all strands of Science.

Year Group	Key Vocabulary
KS3	
6	plan variables measurements accuracy precision repeat repeats record data scientific diagrams labels classification keys tables scatter graphs bar graph line graph predictions further comparative and fair tests report and present conclusions casual relationships explanations degree of trust oral and written display presentation evidence support refute ideas arguments identify, classify and describe patterns systematic quantitative measurements
5	plan variables measurements accuracy precision repeat repeats record data scientific diagrams labels classification keys tables scatter graphs bar graph line graph predictions further comparative and fair tests report and present conclusions casual relationships explanations degree of trust oral and written display presentation evidence support refute ideas arguments identify, classify and describe patterns systematic quantitative measurements
4	research- relevant questions scientific enquiry comparative and fair test systematic careful observation accurate measurements equipment – thermometer, data logger data- gather, record, classify, present record- drawings, labelled diagrams, keys, bar charts, tables oral and written explanations conclusion predictions differences, similarities, change evidence improve secondary sources guides, keys construct interpret
3	research- relevant questions scientific enquiry comparative and fair test systematic careful observation accurate measurements equipment – thermometer, data logger data- gather, record, classify, present record- drawings, labelled diagrams, keys, bar charts, tables oral and written explanations conclusion predictions differences, similarities, change evidence improve secondary sources guides, keys construct interpret
2	question answer observe observing equipment identify classify sort group record diagram chart map data compare contrast describe
1	question answer observe observing equipment identify classify sort group record diagram chart map data compare contrast describe biology chemistry physics



**Year 6**

- 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.

**Year 5**

- planning different types of scientific enquiries to answer questions, including recognising variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs
- using test results to make predictions to set up further fair tests
- reporting and presenting findings from enquiries, including conclusions, and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- begin to identify scientific evidence that has been used to support or refute ideas or arguments.

**Year 4**

- 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.

**Year 3**

- asking questions and using scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests with support
- making 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 to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams and tables
- reporting on findings from enquiries, including oral and written explanations
- using results to draw simple conclusions and raise further questions
- identifying differences or similarities related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions

**Year 2**

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions

**Year 1**

- asking simple questions
- observing closely, using simple equipment (measure in non-standard units)
- performing simple tests with support
- identifying and classifying with support
- begin to use their observations and ideas to suggest answers to questions
- gathering and recording simple data to help in answering questions

Year Group	Wider Opportunities and Experiences
6	Science Week Residential PGL trip Sports day Animal/ owls visit
5	Science Week Royal Observatory Secondary Science visit Animal/ owls visit
4	Science Week Epping Forest trip Local area- litter pick Animal/ owls visit
3	Science Week Eastbury Manor and Gardens Animal/ owls visit Trip to a local beach?
2	Science Week Maritime Museum Animal/ owls visit Trip to local National Trust park Bug hotel and growing plants within school
1	Science Week Barley Lands Farm Animal/ owls visit Trip to the chase Growing plants within school