Badbury Park Primary School Science Skill Progression also see Forest School

EYFS	Show curiosity about objects, events and people Questions why things happen Engage in open-ended activity Take a risk, engage in new experiences and learn by trial and error Find ways to solve problems / find new ways to do things / test their ideas Develop ideas of grouping, sequences, cause and effect Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world Use senses to explore the world around them Make links and notice patterns in their experiences Create simple representations of events, people and objects Build up vocabulary that reflects the breadth of their experience **Choose the resources they need for their chosen activities** **Handle equipment and tools effectively** **Answer how and why questions about their experiences** **Make observations** **Develop their own narratives and explanations by connecting ideas or events** **Explain why some things occur and talk about changes**				
Year 1	**Research**	**Planning An Investigation**	**Thinking Scientifically**	**Working Critically With Evidence (Conclusion)**	**Communicating And Collaborating**
	-Use simple texts with help, to find information.	-Ask simple questions and recognise that they can be answered in different ways. -Talk about what we are going to: look/listen for - Use simple equipment to observe closely - look closely, using equipment. -Ask questions: What do you think will happen to…	-Use senses and simple equipment to describe what is around us -Tell our friends what things are like using our senses -Identify and classify.	-Notice patterns and relationships: We notice… happen/change when…	-Talk about what we found out and use tables etc. from our teacher to help us record what we find out -Gather and record data to help in answering questions. -Use his/her observations and ideas to suggest answers to questions

		-Model what equipment/information is needed to find things out -Perform simple tests.			
Year 2	**Research**	**Planning An Investigation**	**Thinking Scientifically**	**Working Critically With Evidence (Conclusion)**	**Communicating And Collaborating**
	-Use simple texts with help, to find information.	-Ask simple questions and recognise that they can be answered in different ways. -Talk about what we are going to: look/listen for - Use simple equipment to observe closely - look closely, using equipment. -Ask questions: What do you think will happen to… -Model what equipment/information is needed to find things out -Perform simple tests.	-Use senses and simple equipment to describe what is around us -Tell our friends what things are like using our senses -Identify and classify.	-Notice patterns and relationships: We notice… happen/change when…	-Talk about what we found out and use tables etc. from our teacher to help us record what we find out -Gather and record data to help in answering questions. -Use his/her observations and ideas to suggest answers to questions
Year 3	**Research**	**Planning An Investigation**	**Thinking Scientifically**	**Working Critically With Evidence (Conclusion)**	**Communicating And Collaborating**
	-Begin to use texts by themselves to find out information.	-Ask questions and use different types of scientific enquiries to answer them. -Decide what we are going to: listen/look for and measure -Talk about (or list) the variables that will affect	-Make observations and take measurements using standard units, using a range of equipment, including thermometers and data loggers. -Gather, record, classify and present data in a	-Explain differences, similarities or changes related to simple scientific ideas and processes. -Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.	-Make decision about how to record (using simple scientific language) -Show you what we have found out using notes, simple tables, labelled diagrams, drawings, bar charts (using standard units)

		what we are observing or measuring. -Set up simple practical enquiries, comparative and fair tests. -Make observations and take measurements using standard units, using a range of equipment, including thermometers and data loggers.	variety of ways to help with answering questions.		-Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. -Use our records to explain our findings through talk, displays or writing -Use straightforward scientific evidence to answer questions or to support my findings.
Year 4	**Research**	**Planning An Investigation**	**Thinking Scientifically**	**Working Critically With Evidence (Conclusion)**	**Communicating And Collaborating**
	-Use texts independently to find information.	-Ask relevant questions and use different types of scientific enquiries to answer them. -Set up practical enquiries, comparative and fair tests. -Make systematic and careful observations, and take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.	-Make systematic and careful observations, and take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. -Gather, record, classify and present data in a variety of ways to help with answering questions.	-Identify differences, similarities or changes related to scientific ideas and processes. -Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.	-Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. -Use scientific evidence to answer questions or to support my findings.

Year 5	Research	Planning An Investigation	Thinking Scientifically	Working Critically With Evidence (Conclusion)	Communicating And Collaborating
	- Select information from a range of sources.	-Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary -Ask our own scientific questions -Make our own decisions about the type of enquiry to carry out. -Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	-Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. -Use a classification key -Use a data base (record cards, computers etc.) to describe and classify living things and materials.	-Use test results to make predictions to set up further comparative and fair tests. -Suggest improvements to our method and say why.	-Record data and results of increasing complexity, using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. -Talk about and present findings from enquiries, including conclusions, causal relationships and explanations of how reliable the information is. -Use or record to explain the relationship between variables (er…er…rule). -Present our findings to an audience using displays, written text and power point etc. -Describe using a model.
Year 6	**Research**	**Planning An Investigation**	**Thinking Scientifically**	**Working Critically With Evidence (Conclusion)**	**Communicating And Collaborating**
	-Select information from a range of sources.	-Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary -Ask our own scientific questions	-Take accurate measurements, using a range of scientific equipment, taking repeat readings when appropriate -Use a classification key -Use a data base (record cards, computers etc.) to	-From the data in our graph/table we found out the relationships between X and Y (e.g. the er…er…rule: the fast**er** the X the slow**er** the Y)	-Record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. -Choose the best way to record data including

		-Make our own decisions about the type of enquiry to carry out. -Decide the most appropriate observations and measurement to take and how long to take them for. -Decide which variable to change and which variables to keep the same. -Take accurate measurements, using a range of scientific equipment, taking repeat readings when appropriate	describe and classify living things and materials.	-Suggest improvements to our method and say why. -Use test results to make predictions to set up further comparative and fair tests.	scientific diagrams and labels, classification keys, tables, bar and line graphs and models -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. -Identify scientific evidence that has been used to support or refute ideas or arguments.