William Penn
Progression of Skills – Science

Skills	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Planning and Communication and Sources	draw simple pictures talk about what they see and do use simple charts to communicate findings identify key features ask question	describe their observations using some scientific vocabulary use a range of simple texts to find information suggest how to find things out identify key features ask questions	use pictures, writing, diagrams and tables as directed by their teacher use simple texts, directed by the teacher, to find information record their observations in written, pictorial and diagrammatic forms select the appropriate format to record their observations	record obersavations, comparisons and measurements using tables and bar charts begin to plot points to form a simple graph use graphs to point out and interpret patterns in their data select information from a range of sources provided for them	Record observations systematically use appropriate scientific language and conventions to communicate quantitative and qualitative data select a range of appropriate sources of information including books and internet	chose scales for graphs which show data and features effectively identify measurements and observations which do not fit into the main pattern begin to explain anomalous data use appropriate ways to communicate quantitative data using scientific language
Enquiring and Testing and Obtaining and Presenting Evidence	test ideas suggested to them say what they think will happen use first hand experiences to answer questions begin to compare some living things	Use very simple equipment provided to aid observation compare objects, living things or events make observations relevant to their task begin to recognise when a test or comparison is unfair use first hand experiences to answer questions	put forward own ideas about haw to find the answers to questions recognise the need to collect data to answer questions carry out a fair test with support recognise and explain why it is a fair test with help, pupils begin to realise that scientific ideas are based on evidence	with help, pupils begin to realise that scientific ideas are based on evidence show in the way they perform their tasks how to vary one factor while keeping others the same decide on an appropriate approach in their own investigations to answer questions describe which factors they are varying and which will remain the same and say why	use previous knowledge and experience combined with experimental evidence to provide scientific explanations recognise the key factors to be considered in carrying out a fair test	describe evidence for a scientific idea use scientific knowledge to identify an approach for an investigation explain how the interpretation leads to new ideas
Observing and Recording	make observations using appropriate senses record observations communicate observations orally, in drawing, labelling, simple writing and using ICT	respond to questions asked by the teacher ask questions collect and record data (supported by the teacher) suggest how they could collect	make relevant observations measure using given equipment select equipment from a limited range	carry out measurement accurately make a series of observations, comparisons and measurements select and use suitable equipment	make a series of observations, comparisons and measurements with increasing precision select apparatus for a range of tasks	measure quantities with precision using fine – scale divisions select and use information effectively make enough measurements or

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		data to answer questions begin to select equipment from a limited range		make a series of observations and measurements adequate for the task	plan to use apparatus effectively begin to make repeat observations and measurements systematically	observations for the required task
Considering Evidence and Evaluatin	make simple comparisons and groupings say what has happened say whether what has happened was what they expected	say what happened say what their observations show and whether it was what they expected begin to draw simple conclusions and explain what they did begin to suggest improvements in their work	begin to offer explanations for what they see and communicate in a scientific way what they have found out begin to identify patterns in recorded measurements suggest improvements in their work evaluate their findings	predict outcomes using previous experience and knowledge and compare with actual results begin to relate their conclusions to scientific knowledge and understanding suggest improvements in their work, giving reason	make predictions based on their scientific knowledge and understanding draw conclusions that are consistent with the evidence relate evidence to scientific knowledge and understanding offer simple explanations for any differences in their results make practical suggestions about how their working methods could be improved	make reasoned suggestions on how to improve working methods show how interpretation of evidence leads to new ideas explain conclusions, showing understanding of scientific ideas