Cumbria
Education Trust

Disciplinary Knowledge of skills when Working Scientifically

EYFS (Development Matters 2021)	Statements taken from Science Programmes of Study Key Stage One and Two (2013) DFE	Key Stage One	Lower Key Stage Two	Upper Key Stage Two
3-4 Year Olds ➢ Use all their senses in hands-on exploration of natural materials. ➢ Explore collections of materials with similar and/or different properties. ➢ Talk about what they see, using a wide vocabulary. ➢ Explore and talk about different forces they can feel. **Reception** ➢ Explore the natural world around them. ➢ Recognise that some environments are different to the one in which they live. ➢ Describe what they see, hear and feel outside. ➢ Understand the effect of the seasons on the natural world around them.	**PLAN**	➢ ask simple questions and recognising that they can be answered in different ways	➢ ask relevant questions and using different types of scientific enquiries to answer them ➢ set up simple practical enquiries, comparative and fair tests	➢ plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
	DO	➢ observe closely, using simple equipment ➢ perform simple tests ➢ identify and classify	➢ make systematic and careful observations and, where appropriate, take accurate measurements using standard units, use a range of equipment, including thermometers and data loggers	➢ take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
	RECORD	➢ gather and record data to help in answering questions.	➢ gather, record, classify and present data in a variety of ways to help in answering questions ➢ record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	➢ record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
	REVIEW	➢ use their observations and ideas to suggest answers to questions	➢ report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions ➢ use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions ➢ identify differences, similarities or changes related to simple scientific ideas and processes ➢ use straightforward scientific evidence to answer questions or to support their findings	➢ use test results to make predictions to set up further comparative and fair tests ¬ ➢ 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