



## Knowledge and Skills Progression – Science (Investigation)



	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Questioning</b>	Question words include why, what, when and how. Ask or answer a simple scientific question.	Question words include who, why, what, when, where and how. Ask a relevant scientific question to find out more, explain how things work and why they might happen.	Question words include what, why, how, when, who and which. Ask simple scientific questions.	Questions can help us find out about the world. Ask and answer scientific questions about the world around them.	Questions can help us find out about the world and can be answered in different ways. Ask questions about the world around them and explain that they can be answered in different ways.	Questions can help us find out about the world and can be answered using scientific enquiry. Ask relevant scientific questions, independently, about the world around them and begin to identify how they can answer them.	Questions can help us find out about the world and can be answered using a range of scientific enquiries. Ask a wide range of relevant scientific questions that broaden their understanding of the world around them and identify how they can answer them.	Questions can help us find out about the world and can be answered using a range of scientific enquiries, including fair tests, research and observation. Ask and answer deeper and broader scientific questions about the local and wider world that build on and extend their own and others' experiences and knowledge.
	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Investigation</b>	Find different ways to do things when playing and exploring and use all their senses in hands on exploration of natural materials.	When we try things out to see if they work, it is called a test. Observe how activities are going and adapt their ideas if necessary.	Simple tests can be carried out by following a set of instructions. With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen.	Tests can be carried out by following a set of instructions. A prediction is a guess at what might happen in an investigation. Follow a set of instructions to perform a range of simple tests, making simple predictions for what might happen and suggesting ways to answer their questions.	Tests can be set up and carried out by following or planning a set of instructions. A prediction is a best guess for what might happen in an investigation based on some prior knowledge. Set up and carry out some simple, comparative and fair tests, making predictions for what might happen.	Scientific enquiries can be set up and carried out by following or planning a method. A prediction is a statement about what might happen in an investigation, based on some prior knowledge or understanding. A fair test is one in which only one variable is changed and all others remain constant. Begin to independently	A method is a set of clear instructions for how to carry out a scientific investigation. A prediction is a statement about what might happen in an investigation based on some prior knowledge or understanding. Plan and carry out a range of enquiries, including writing methods, identifying variables and	A method is a set of clear instructions for how to carry out a scientific investigation, including what equipment to use and observations to make. A variable is something that can be changed during a fair test. A prediction is a statement about what might happen in an investigation based on some prior knowledge or

						plan, set up and carry out a range of comparative and fair tests, making predictions and following a method accurately.	making predictions based on prior knowledge and understanding.	understanding. Plan and carry out a range of enquiries, including writing methods, identifying and controlling variables, deciding on equipment and data to collect and making predictions based on prior knowledge and understanding.
	<b>Nursery</b>	<b>Reception</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>
<b>Observation</b>	Talk about some of the things that they have observed using simple scientific vocabulary.	With support, observe, record and talk about materials and living things.	Objects, materials and living things can be looked at and compared. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features.	Objects, materials and living things can be looked at, compared and grouped according to their features. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning.	An observation involves looking closely at objects, materials and living things, which can be compared and grouped according to their features. Make increasingly careful observations, identifying similarities, differences and changes and making simple connections.	An observation involves looking closely at objects, materials and living things. Observations can be made regularly to identify changes over time. Begin to choose which observations to make and for how long and make systematic, careful observations and comparisons, identifying changes and connections.	An observation involves looking closely at objects, materials and living things. Accurate observations can be made repeatedly or at regular intervals to identify changes over time. Within a group, decide which observations to make, when and for how long, and make systematic and careful observations, using them to make comparisons, identify changes, classify and make links between cause and effect.	An observation involves looking closely at objects, materials and living things. Accurate observations can be made repeatedly or at regular intervals to identify changes over time, identify processes and make comparisons. Independently decide which observations to make, when and for how long and make systematic and careful observations, using them to make comparisons, identify changes, classify and make links between cause and effect.