



Whitestone Infant School
Progression of working scientifically skills in Science



	Reception	Year 1	Year 2
Questioning	- Asks questions about aspects of their familiar world. - Asking why and how things happen.	Ask questions about their world and the world around them (what I can see, smell, taste, touch etc) (Question words to include what, why, how, when, who and which)	- Begin to ask questions with relevance to a topic. - Increasingly asking about unknown phenomena.
Observing	- Make sensory observations of objects, animals, plants and people. - Make simple descriptions of the world around them using new and familiar vocabulary.	- Identify, classify and describe a variety of plants, animals and materials. - Describe their observations by using some key vocabulary. - Observe objects, materials, living things and changes over time, sorting and grouping them based on their features	- Make refined/detailed observations made though use of equipment (microscopes, magnifying glasses etc) - Describe observations using scientific language. - Describe observations in relation to the context. - Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning
Measuring	- Measure by direct comparison. - Uses non-standard units of measurement. - Use extended comparative vocabulary – bigger, smaller.	- Use standard units of measurement. - Use simple equipment (egg timers, stop clocks, metre sticks) to measure length, time, capacity, weight).	- Selects the most appropriate measurement and equipment. - Uses a variety of standard units of measurement. - Uses scientific vocabulary to aid measurement.
Researching	- Look at objects and pictures and discussing what they can see. - Beginning to use key vocabulary.	Engaging with texts and using a variety of sources to research (internet, library, databases).	Using research to inform discussion and decision making.

Planning	Generating a variety of ideas for testing (this will not always be realistic/appropriate)	Identify an appropriate approach to answer a set question.	- Begin to refine ideas – only changing one factor. - Recognise that there may be different ways to answer a questions.
Predicting	- Make simple guesses - what might happen? - Make links and noticing patterns in their experiences.	- Make simple predictions based on experiments. - Begin to consider research/known occurrences/ previous knowledge.	- Confidently considering known occurrences when making a prediction (hypothesis) - Explain reasons for making their prediction.
Reporting	- Develop own narrative and explanations by connecting ideas and events. - Simple recording – pictures/images.	- Use precise scientific vocabulary to describe an event / idea. - Complete pre-prepared tables and graphs. - To use simple labels for diagrams.	- Create own charts and tables. - Make clearly labelled diagrams using scientific vocabulary.
Interpreting	- Noticing ‘which worked best’ – simple comparative statements. - Answer initial questions using some key vocabulary.	- Answer initial questions using key vocabulary linked to the topic. - Answer initial questions using results. - Consider what results show – why did X happen?	- Explain the outcomes and how they were achieved. - Relate results to initial question using scientific vocabulary. - Identify patterns in data and provide explanations.
Evaluating	- Answer how and why questions about their own experiences. - Answer how and why questions about new situations, ideas and events.	- Identify how their investigation worked – what worked well, what didn’t? - Notice anything that affected results i.e. changes in temperature etc.	- Suggest how to improve experiments. - Identify if it was effective and link to scientific knowledge. - Identify what they have learnt from the investigation?