

Wheldrake with Thorganby CE Primary School  
Curriculum Coverage of Skills - Working Scientifically

Working Scientifically	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Questioning and predicting	Ask questions	Ask simple questions	Use observations and ideas to suggest answers to questions	Ask relevant questions * Start to make predictions.	Make sensible predictions *Suggest possible further questions *Use straightforward scientific evidence to answer questions and support their findings	Use test results to make appropriate, linked predictions and ask further questions Recognise when other sources of information (secondary sources) will help answer questions that cannot be answered through practical investigations	Make predictions for new values Use a range of sources to support own evidence and talk about how scientific ideas have developed over time*Evaluate the reliability of their methods and suggest improvements *Identify scientific evidence that has been used to support or refute ideas or arguments
Planning and carrying out investigations.	Talk about what is being done in order to answer their questions	Recognise that questions can be answered in different ways *Perform simple tests	Carry out pre-planned investigations – with support	Use different types of scientific enquiries to answer questions Set up simple practical enquiries Set up simple comparative tests	Set up fair tests Identify differences, similarities or changes related to simple scientific ideas and processes	Plan different types of scientific enquiries to answer questions – including recognising and controlling variables where necessary Suggest sensible	Set up further comparative and fair tests in response to results.

						improvements to experiments	
Taking and recording observations, measurements and results	Make observations.	Observe closely. Use simple equipment.	Gather and record data to help answer questions with support.	Start to make systematic and careful observations Take accurate measurements using standard units *Gather and record data to help answer questions Start to record findings using simple scientific language	Make systematic and careful observations Take accurate measurements using standard units using a range of equipment including thermometers and data loggers Record findings using simple scientific language – demonstrate through drawings, labelled diagrams, keys, bar charts and tables	Take accurate, precise measurements using appropriate equipment Know and explain when it is appropriate to take repeat measurements Gather, record, classify and present data in a variety of ways including scientific diagrams and labels, keys, graphs and tables	Choose the most appropriate method for recording data and results of increasing complexity Make a series of observations, comparisons and measurements with precision.
Explaining Results and Drawing Conclusions.	Talk about why things happen Talk about changes	Talk about what they have found out	Start to use simple scientific language in context *Identify and classify objects as part of an investigation	Report back on findings verbally Form conclusions from findings Suggest improvements to investigations Use straightforward scientific evidence to answer questions	Classify and present data in a variety of ways to help in answering questions Report back on findings verbally and through written explanations, displays, presentations etc.... Form sensible conclusions from findings	Use scientific evidence to answer questions Use scientific evidence to support findings Use results to draw conclusions	Present observations and data using appropriate methods Report and present results including conclusions, causal relationships and explanations *Make conclusions consistent with evidence and related to scientific

