**Kinoulton Primary School – Progression in Working Scientifically Skills**

This document shows how the working scientifically statements from the science National Curriculum for England are linked and built on across the three phases in Key Stage 1 and 2.

In the EYFS, the characteristics of effective learning from the Statutory Framework for the Early Years Foundation Stage are the foundations on which the working scientifically skills build in Key Stage 1. While children are playing and exploring, the adults model, encourage and support them to do the following:

* show curiosity and ask questions
* make observations using their senses and simple equipment
* make direct comparisons
* use equipment to measure
* record their observations by drawing, taking photographs, using sorting rings or boxes and on simple tick sheets
* use their observations to help them to answer their questions
* talk about what they are doing and have found out
* identify, sort and group

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|  | **DC1: Asking scientific questions** | **DC2: Planning scientific enquiries** | **DC3: Using scientific equipment** | **DC4: Taking measurements and observations** | **DC5: Recording data** | **DC6: Presenting data** | **DC7: Forming conclusions** | **DC8: Using models** |
| **Year 1 & Year 2** | Asking simple questions and recognising that they can be answered in different ways. |  | Observing closely, using simple equipment. | Observing closely, using simple equipment.  Performing simple tests. | Gathering and recording data to help in answering questions. | Identifying and classifying. | Using their observations and ideas to suggest answers to questions. |  |
| **Year 3 & Year 4** | Asking relevant questions and using different types of scientific enquiries to answer them.  Using results to draw simple conclusions, make predictions for new values, suggest improvements, and raise further questions. | Setting up simple practical enquiries, comparative and fair tests. | Setting up simple practical enquiries, comparative and fair tests.  Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. | Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.  Identifying differences, similarities, or changes related to simple scientific ideas and processes. | Gathering, recording, classifying, and presenting data in a variety of ways to help in answering questions.  Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. | Gathering, recording, classifying, and presenting data in a variety of ways to help in answering questions.  Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.  Reporting on findings from enquiries, including oral and written explanations, displays, or presentations of results and conclusions. | Asking relevant questions and using different types of scientific enquiries to answer them.  Using results to draw simple conclusions, make predictions for new values, suggest improvements, and raise further questions.  Using straightforward scientific evidence to answer questions or to support their findings. | Reporting on findings from enquiries, including oral and written explanations, displays, or presentations of results and conclusions. |
| **Year 5 & Year 6** | Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. | Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. | Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. | Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.  Using test results to make predictions to set up further comparative and fair tests. | Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.  Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, and bar and line graphs. | Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, and bar and line graphs.  Reporting and presenting findings from enquiries, including conclusions, causal relationships, explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. | Identifying scientific evidence that has been used to support or refute ideas or arguments. | Reporting and presenting findings from enquiries, including conclusions, causal relationships, explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. |