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| **Progression of Skills in: Working Scientifically** |

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| **Skills** | **EYFS (D.M/ELG’s)** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** | **Beyond KS2** | |
| **PLAN** | **>Comment and ask questions about aspects of their familiar world such as the natural world.** | >**Ask simple questions and recognise that they can be answered in different ways** | | **> Ask relevant questions and use 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**  >Use test results to make predictions to set up further comparative and fair tests | | >**Ask questions and develop a line of enquiry based on observations of the real world alongside prior knowledge and experience**  >Make predictions using scientific knowledge and understanding |
| **DO** | **>Talk about similarities and differences in relation to places, objects, materials and living things.**  >They make observations of animals and plants | >**Observe closely, using simple equipment**  >Perform simple tests  **> Identify and classify** | | >**Make systematic and careful observations and , where appropriate, taking accurate measurements using standard units, using 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** | | **>Select, plan and carry out the most appropriate types of scientific enquiries to test predictions…** |
| **RECORD** | **>Create simple representations of observations** | >**Gather and record data to help in answering questions**  (Mathematics POS)  **By the end of KS1 pupils should be able to interpret and construct simple pictograms, tally charts, block diagrams and simple tables** | | >**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  (Mathematics POS)  **By the end of Year 4 pupils should be able to interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs** | | **>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs,**  (Mathematics POS)  **By the end of Year 6 pupils should be able to interpret and construct pie charts and line graphs and use these to solve problems calculate and interpret the mean as an average**. | | **>Make and record observations and measurements using a range of methods for different investigations; and evaluate the reliability of methods and suggest possible improvements**  >Present observations and data using appropriate methods, including tables and graphs |
| **EVALUATE** | >**They talk about the features of their own immediate environment and how environments might vary from one another.**  >They explain why some things occur, and talk about changes. | >Use their observations and ideas to suggest answers to questions | | **>Report on findings from enquiries, include 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. | | >**Report and present findings from enquiries, including conclusions, causal relationships and explanations results, 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. | | >**Interpret observations and data, including identifying patterns and using observations, measurements and data to draw conclusions**  **present reasoned explanations, including data in relation to predictions and hypotheses**  >Evaluate data, showing awareness of potential sources of error  >**Identify further questions arising from results** |