taLodge Farm Primary School

**Science Knowledge and Skills Progression**

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| **Strand** | **By the end of EYFS** | **By the end of Y1** | **By end of Y2** | **By end of Y3** | **BY end of Y4** | **By end of Y5** | **By end of Y6** |
| **Scientific attitudes and planning** | While exploring the world, developing the ability to ask questions. | Developing the ability to ask questions and where appropriate, answer these questions. | Asking simple questions and recognising that they can be answered in different ways. | Considering prior knowledge when asking questions and identifying the type of enquiry used to answer them.  Selecting from practical resources to gather evidence to answer questions. | Asking relevant questions and using different types of scientific enquiry to answer them.  Setting up simple practical enquiries, comparative and fair tests. | Deciding for themselves how to gather evidence to answer, including carrying out fair tests.  Answering their own or others’ questions based on observations or measurements made. | Planning different types of scientific enquiries to answer questions, including recognizing and controlling variables where necessary.  Identifying scientific evidence that has been used to support or refute ideas or arguments. |
| **Measuring and observing** | Exploring the world around them. | Using appropriate senses to make observations.  Performing simple tests with support. | Observing closely, using simple equipment.  Performing simple tests. | Using a range of equipment for measuring length, time, temperature and capacity.  Using standard units for measurements. | Making systematic and careful observations.  Taking accurate measurements using standard units, using a range of equipment, including thermometers. | Making decisions, during an enquiry in order to get accurate data, such as repeat readings.  Selecting measuring equipment to give the most precise results. | Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. |
| **Recording and presenting** | Sorting and grouping things. | Recording observations in different ways e.g. photos, drawings.  Comparing objects, materials and living things using observations. | Gathering and recording data to help in answering questions.  Identifying and classifying. | Deciding how to record and present evidence.  Recording measurements using tables, tally charts and bar charts. | 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. | Recording and classifying data using tables, bar and line graphs, labelled diagrams or Venn diagrams. | Recording data and results of increasing complexity using scientific diagrams, classification keys, tables, scatter graphs, bar and line graphs. |
| **Analysing and evaluating** | Recognising “biggest” and “smallest” from their data. | Recognising “best” and “worst” from their data, using observations. | Use their observations and ideas to suggest answers to questions. | Communicating their findings to an audience orally and in writing.  Drawing conclusions based on their evidence and identifying ways they have adapted their method.  Identifying their data to generate simple comparative statements and identifying naturally occurring patterns.  Answering their own and others’ questions based on observations or measurements. | Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.  Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.  Identifying patterns related to simple scientific ideas and processes.  Using straightforward scientific evidence to answer questions. | Evaluating the choice of method used, control of variables and any limitations that could reduce the trust in their data.  Communicating their findings to an audience using scientific language and illustrations. | Using test results to make predictions to set up further comparative and fair tests.  Reporting and presenting findings from enquiries, including conclusions, casual relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. |