**Progression in Scientific Skills**

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|  | **EYFS** | **KS1** | **LKS2** | **UKS2** |
| *Asking questions* | Explore the world the around them and raise questions as a result of this exploration. | Ask questions in discussions about the world around them. | Ask questions (without prompting) about the world around them.  Begin to ask new questions as a result of enquiry. | Use scientific experiences to raise further questions.  Use results to ask questions and suggest next steps. |
| *Classification* |  | Identify simple features of objects and, with help, decide how to group them. | |  | | --- | |  |   Can talk about criteria for grouping, sorting and classifying and use simple keys. | Can use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment. |
| *Enquiry* |  | Observe closely, using simple equipment.  Can, with help, observe changes over time.  Can use simple measurements and equipment (e.g. hand lenses, egg timers) to gather data. | |  | | --- | | Set up simple practical enquiries, comparative and fair tests.  Can recognise when a simple fair test is necessary and help to decide how to set it up. | | Can recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. |
| *Recording data* |  | Record simple data in results tables. | Take accurate measurements using standard units using equipment.  Collect and record data from my observations and measurements in a variety of ways: notes, bar charts and tables, standard units, drawings, labelled diagrams, keys and begin to analyse. | Choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. Can take repeat measurements where appropriate.  Can decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. |
| *Research* |  | Ask people questions and use simple secondary sources to find answers. | Recognise when and how secondary sources might help me to answer questions that cannot be answered through practical investigations | Can recognise which secondary sources will be most useful to research my ideas and begin to separate opinion from fact. |
| *Observing* |  | Can, with guidance, begin to notice patterns and relationships | Make systematic and careful observations.  Can help to make decisions about what observations to make, how long to make them for and the type of simple equipment that could be used. | Can make my own decisions about what observations to make, what measurements to use and how long to make them for. |
| *Pattern Seeking* |  | Can, with guidance, begin to notice patterns and relationships | Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. | Can look for different causal relationships in data and identify evidence that refutes or supports my own ideas. |
| *Evaluating and communicating results* |  | Can talk about what they have found out and how they found it out. | Can use relevant simple scientific language to discuss ideas and communicate findings in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions. | Can identify scientific evidence that has been used to support or refute ideas or arguments.  Can use relevant scientific language and illustrations to discuss, communicate and justify scientific ideas, use oral and written forms such as displays and other presentations to report conclusions, causal relationships and explanations of degree of trust in results |