**Level 3**

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| ***Pupils…*** suggest where to find evidence, information and ideas and plan, with support, the method to be used for their enquiries. |  |
| ... talk about their ideas and using their everyday experience ... make simple predictions. |  |
| ... agree on some basic success criteria. |  |
| ... follow a simple series of instructions safely to gather their findings, and where appropriate make observations that ... could measure using simple equipment. |  |
| ... begin to organise their findings and display them in a given format, to include simple tables and bar charts. |  |
| ... begin to identify simple patterns and trends. |  |
| ... begin to distinguish between scientific ‘facts’, beliefs and opinions. |  |
| ... give an explanation, based upon their everyday experiences, for their findings, including any patterns. |  |
| ... give simple explanations for differences between and changes to organisms, objects, materials and physical phenomena. |  |
| ... say what ... have found out from their work and make their own decisions by weighing up pros and cons. |  |
| ... link outcomes to success criteria and identify what worked and what didn’t, beginning to think about how the method could be improved. |  |
| ... link the learning, with support, to familiar situations. |  |

**Level 4**

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| **Pupils…** find and use a variety of evidence, information and ideas |  |
| …use scientific knowledge and skills to plan their enquiries  |  |
| …(Use scientific knowledge and skills to) predict outcomes. |  |
| …recognise, with support, the variables to change and measure and those to be kept the same. |  |
| …decide upon some basic success criteria |  |
| …follow the planned method…… make qualitative observations and use standard equipment to measure within a given range using S.I. units. |  |
| …(following the planned method) …. making amendments where necessary |  |
| …organise and communicate their findings using relevant scientific language and display these in tables, bar charts and in simple line graphs when the axes and scales are given. |  |
| …identify patterns and trends. Distinguish between ‘facts’, beliefs and opinions and begin to recognise bias. |  |
| …use some scientific knowledge and understanding to explain their findings ….and differences between, or changes to organisms, materials and physical phenomena |  |
| …begin to draw conclusions, from considered opinions and make informed decisions. |  |
| …decide whether their method was successful by referring to their success criteria….. Say how they could improve it (their method). |  |
| …describe how they have learned and identify the ways that worked the best |  |
| …link the learning to similar situations. |  |

**Level 5**

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| **Pupils…** find and use relevant evidence, information and ideas. |  |
| …systematically plan their enquiries |  |
| …make predictions based on scientific knowledge and understanding, including simple models. |  |
| …identify key variables and distinguish between independent and dependent variables and those that they will keep the same |  |
| …give some justification for their success criteria. |  |
| …select measuring instruments that allow them to make a series of accurate measurements |  |
| …regularly check progress and revise the method where necessary |  |
| …organise and communicate their findings integrating different forms in various presentations and record these systematically, using S.I. units where appropriate. Select the most appropriate type of graph or chart to display data. |  |
| …use a line graph to describe relationships between two continuous variables. Identify bias and start to consider reliability. |  |
| …use scientific knowledge and understanding, including simple models, when explaining their findings……and differences between, or changes to organisms, materials and physical phenomena. |  |
| …draw conclusions that are consistent with the findings and consider others’ views to inform opinion and decisions. |  |
| …begin to evaluate how far success criteria fully reflect successful outcomes. |  |
| …identify the learning/thinking strategy they have used…… |  |
| …link the learning to dissimilar but familiar situations. |  |

**Level 6**

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| ***Pupils…*** suggest a variety of methods or strategies for their enquiries. |  |
| …make predictions using abstract scientific ideas. |  |
| …in a fair test enquiry, plan how to control the variables that they need to keep the same and make decisions about the range and values of the independent variable. |  |
| …justify their success criteria. |  |
| …make precise observations and accurate measurements using equipment with fine divisions. |  |
| …regularly check progress, make on-going revisions when necessary and begin to justify any amendments or improvements made. |  |
| …organise and communicate their findings in a variety of ways fit for purpose and audience. |  |
| …use appropriate axes and scales for graphs to show data effectively and begin to use some quantitative definitions. |  |
| …when considering their findings they assess bias, consider reliability and offer some explanations for any anomalies. |  |
| …use abstract scientific knowledge and understanding, including models, when explaining their findings and differences between, or changes to organisms, materials and physical phenomena. |  |
| …recognise that a number of factors and/or processes may have to be considered when explaining changes. |  |
|  …consider a wider range of perspectives to inform opinions and decisions. |  |
| …evaluate how far success criteria fully reflect successful outcomes. |  |
| …identify the learning / thinking strategies being used and link the learning to unfamiliar situations. |  |