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| **Focus** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Using Investigative Approaches** - Method and Fair Testing | **Responding to others’ ideas about how to test.**  Pupils ask simple questions and recognise that they can be answered in different ways.  Pupils respond to simple suggestions about how to test an idea.  Pupils observe closely, using simple equipment.  Pupils perform simple tests.  Pupils identify and classify things. | **Having ideas about how to test.**  Pupils gather and record their own data to help in answering questions.  Pupils recognise the need to compare when testing things. | **Fair testing with support.**  Pupils ask relevant questions and use different kinds of scientific enquiries to answer them (with support).  Pupils set up simple practical enquiries and fair tests (with support).  Pupils understand that fair tests seek to find the reasons to why things happen – the causes of effects. | **Fair testing with support.**  Pupils understand that if we want to know if one thing affects another, then THAT is the only thing we must change, or we won’t know what caused that effect.  Pupils set up a fair test with limited support.  Pupils make careful, systematic observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, e.g. thermometers. | **Fair testing independently.** Pupils independently carry out an investigation, where appropriate dependent/independent variables are effectively managed.  Pupils know which variables to control in each investigation.  Pupils take measurements with an appropriate level of precision. | **Fair testing, incorporating an understanding for the need of reliable evidence.**  Pupils take measurements, using a range of scientific equipment, with increasing accuracy and precision.  Pupils know when it’s appropriate to take repeat readings.  Pupils check if findings are reasonable by comparing with the findings of other groups.  Pupils use test results to make predictions to set up further comparative and fair tests. |
| **Communicating and Collaborating in Science** - Results | **Awareness of recording.**  Pupils show an awareness of the need to record observations in Science.  Pupils gather and record | **Beginning to record.**  Pupils begin to understand the importance of organising results, for example, into a table, to aid analysis. | **Organises results with support.**  Pupils understand the importance of organising results as or after they are gathered (some still supported). | **Begins to organise results and present them in different ways.**  Pupils gather, record, classify and present data in a variety of ways to help in answering questions (e.g. bar charts, tables, labelled  diagrams and keys). | **Organises results independently, and can present them in a range of different ways.**  Pupils record data and results of increasing complexity, using scientific diagrams and labels, classification keys, tables and bar graphs. | **Records/presents in a variety of more complex ways, considering degree of trust.**  Pupils record data and results of increasing complexity, using scientific diagrams and labels, classification keys, |

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|  | data/observations (fully scaffolded). | Pupils record data/observations (still scaffolded). |  | Pupils report on findings from enquiries, including oral and written explanations, displays or presentations of results/conclusions. |  | tables, scatter graphs, bar and line graphs.  Pupils report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms (e.g. displays, or other presentations).  Pupils identify scientific evidence that has been used to support or refute  ideas or arguments. |
| **Working Critically with Evidence and Thinking Scientifically**  - Conclusions and Explanations | **Describing what they see.**  Pupils develop a vocabulary to talk about what they are doing. | **Comparing two or more things they have tested/observed.**  Pupils use their observations and ideas to suggest answers to questions.  Pupils make comparisons between the things they are testing. | **Attempting to explain what they see.**  Pupils recognise that effects have causes.  Pupils use their own ideas to make predictions before testing.  Pupils use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further  questions. | **With support, they are beginning to use key scientific ideas to explain what they see.**  Pupils record and explain findings using simple but accurate scientific language. | **Can explain what they see using key scientific ideas, with some support where needed.**  Pupils can use key scientific ideas and concepts to offer explanations for what they have found out, to make predictions and to hypothesise about why something might be the way it is (all with support where needed). | **Independently explains what they see using key scientific ideas.**  Pupils can independently use key scientific ideas and concepts to offer explanations for what they have found out, to make predictions, and to hypothesise about why something may be the way it is. |

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|  |  |  | Pupils describe relationships they have found (e.g. the ball bounces higher when I drop it from a greater height). |  |  |  |