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|  |  | **Progression in Science Skills** |  |  |
| **Working Scientifically** |  |  |  |  |
| **Ref** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Testing**  | *Perform* **simple tests** (Year 1 focus) e.g. * Which materials keep things warmest? Know whether the test has been successful and can say what has been learned.
 | *Perform* **simple****comparative and fair tests** (Yr 2 focus) e.g.* Finding out how seeds grow best
 | ***Set up* simple practical enquiries, comparative and fair tests** e.g.* To see which type of

soil is most suitable when growing two similar plants?* To see if their right hand is as efficient as their left.
* Set up a fair test with different variables e.g. the best conditions for a plant to grow.
* Can explain to a

partner why a test is a fair one. | ***Set up* simple practical enquiries, comparative and fair tests** e.g.* Which of two

instruments make the highest or lowest sound? Does a glass of ice weigh more than a glass of water?* Set up a fair test with more than one variable e.g. using different materials to cut out sound.
* Can explain to others why a test is fair e.g. discover how fast ice melts in different temps.
 | ***Set up* an investigation** when it is appropriate e.g. finding out which materials dissolve or not.***Set up* a fair test when needed** e.g.* Which surfaces

create most friction?***Set up* an enquiry-based investigation** e.g.* Find out what

adults/ children can do now that they couldn’t do when they were a baby.***Know* what *variables* are in a given enquiry and can *isolate* each one when investigating.** e.g.* Finding out how

effective parachutes are when made with different materials.  | ***Know* which type of investigation is needed to suit a particular scientific enquiry** e.g. * Looking at the

relationship between pulse and exercise. ***Set up* a fair test when needed** e.g.* Does light travel in straight lines?

***Know* how to set up an enquiry-based investigation** e.g.* What is the

relationship between oxygen and blood?  |

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| **Ref** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Scientific questioning** | ***Ask* simple questions** and recognise that they can be answered in different ways e.g.* Why are flowers different colours?
* Why do some animals eat meat and others do not?
 | ***Ask* simple questions** and recognise that they can be answered in different ways **including use of** **scientific language from the national curriculum** e.g.* Why do some trees lose their leaves in Autumn and others do not?
* How long are the roots of tall trees?
* Why do some animals have underground habitats?
 | ***Ask* relevant questions and use different types of scientific enquiries to answer them** e.g.* Why does the moon

appear as different shapes in the night sky?* Why do shadows

change during the day?* Where does a fossil come from?
 | ***Ask* relevant questions and use different types of scientific enquiries to answer them** e.g.* Why are steam and ice the same thing?
* Why is the liver important in the digestive system?
* What do we mean by pitch when it comes to sound?
 | ***Plan* different types of scientific enquires to *answer given questions.*** | ***Plan* different types of scientific enquiries to answer *their own or others' questions.*** |
| **Measuring**  | ***Use* simple equipment to *observe* closely** (Y1 focus) | ***Use* simple equipment such as thermometers and rain gauges to *observe* closely *changes over time*** (Y2 focus) | ***Make* *systematic* and *careful* *observations* and, where appropriate, *take accurate measurements* using standard units, using a range of equipment, including thermometers and data loggers** (Year 3 focus) | ***Make* *systematic* and careful *observations* and, where appropriate*, take accurate measurements using standard units*, using a range of equipment, including thermometers and data loggers** (Year 4 focus | ***Take measurements* using a range of scientific equipment, with *increasing******accuracy and precision*, taking repeat readings when appropriate** (Y5 maths focus including capacity and mass) | ***Take measurements*, using a range of scientific equipment, with *increasing******accuracy and precision,* taking repeat readings when appropriate** (Y6 focus including capacity, mass, ratio and proportion) |

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| **Ref** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Gathering and recording**  | ***Gather and record data* to help in answering questions** (Year 1 focus) | ***Gather and record data* to help in answering questions including from secondary sources of information *using drawings, labelled diagrams, block graphs or tables.***(Year 2 focus) | ***Gather, record, classify and present data* in a variety of ways to help in answering questions drawings, *labelled diagrams, keys and child-constructed bar charts and tables*** (Year 3 focus) | ***Gather, record, classify and present data* in a variety of****ways to help in answering questions *drawings, labelled diagrams, keys and child-constructed bar charts and tables***(Year 4 focus) | ***Record* data and results of****increasing complexity using *scientific diagrams and labels, classification keys,******tables, scatter graphs, bar******and line graphs*** (Year 5 focus) | ***Record* data and results of****increasing complexity using *scientific diagrams and labels, classification keys,******tables, scatter graphs, bar******and line graphs*** (Year 6 focus) |
| **Communicating Findings** | ***Make a simple written explanation* about what has been learned from an investigation or what conclusions have been found.**  | ***Communicate their ideas,* what they do and what they find out in a variety of ways** e.g. simple written reports or write ups. | ***Report on findings from enquiries,* including *oral* and *written* explanations, *displays* or *presentations* *of results and conclusions***(Year 3 focus) | ***Report on findings from enquiries,* including *oral* and *written explanations, displays or presentations of******results and conclusions***(Year 4 focus) | ***Report and present findings* from enquiries, including *conclusions*, *causal* *relationships* and *explanations of and degree of trust in*** ***results*, in *oral* and *written* forms such as displays and other presentations** (Year 5 focus) | ***Report and present findings* from enquiries, including *conclusions, causal relationships* and *explanations of and degree of trust in*** ***results*, in oral and written forms such as displays and other presentations** (Year 6 focus) |

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| Ref | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| **Classifying**  | ***Identify and classify*** e.g. Mammals and birds(Year1 focus) | ***Identify, group and classify* according to a given criteria** e.g. Deciduous and coniferous trees(Year 2 focus) e.g. using a Venn Diagram | ***Group information* according to common** **factors** e.g. plants that grow in woodlands/plants that grow in gardens. (Yr 3 focus) e.g. Venn Diagrams with bisecting sets or Carroll Diagrams | ***Group information* according to common factors** e.g. materials that make good conductors or insulators. (Yr4 focus) e.g. Venn Diagrams with bisecting sets or Carroll Diagrams | ***Group and classify* things and *recognise patterns* using appropriate ways of presenting** e.g. classification keys. | ***Group and classify things* and *recognise patterns* using appropriate ways of presenting** e.g. classification keys. |
| **Scientific research**  |  |  | **Use research to find out a range of things** e.g.* How reflection can

help us see things that are around the corner.* What are the main differences between sedimentary and igneous rocks?
 | **Use research to find out a range of things** e.g.* Which materials

make effective conductors and insulators of electricity?* How much time it

takes to digest our food. | **Find things out using a *wide range* of *secondary******sources* of information** | **Find things out using a *wide range of secondary******sources* of information** |
| **Concluding and questioning** |  | **Use observations and ideas to *suggest answers to questions* noticing similarities, differences and patterns**(Year 2 focus) | **Use results to *draw simple conclusions, make predictions for new values, suggest improvements and raise further questions***(Year 3 focus) | **Use results to *draw simple conclusions, make predictions for new values, suggest improvements and raise further questions***(Year 4 focus) | **Use results to *draw conclusions*. Is *evaluative* when explaining findings from scientific enquiries and is clear about what has happened in recent enquiries and *can relate this to other enquiries where appropriate*** (Year 5 focus) | **Use results *to draw conclusions.* Is *evaluative* when explaining findings from scientific enquiries and is clear about what has happened in recent enquiries and *can relate this to other enquiries where appropriate*** (Year 6 focus) |

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| **Ref** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Using scientific evidence** |  |  | ***Use straightforward scientific evidence* to answer questions or to support findings** (Year 3 focus)  | ***Use straight forward scientific evidence* to answer questions or to support findings**(Year 4 focus) | ***Identify scientific evidence* that has been used to support or refute ideas or arguments** (Year 5 focus) | ***Identify scientific evidence* that has been used to support or refute ideas or arguments** (Year 6 focus) |