**Year 4/ Year B: Science Progression in Skills and Knowledge**

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| **Year 4/ Year 6** | **Pupils not securing learning** | **Pupils achieving depth in learning** |
| * identify how sounds are made, associating some of them with something vibrating * recognise that vibrations from sounds travel through a medium to the ear * find patterns between the pitch of a sound and features of the object that produced it * find patterns between the volume of a sound and the strength of the vibrations that produced it * recognise that sounds get fainter as the distance from the sound source increases. |  |  |
| **Autumn 2: Electricity** |  |  |
| * identify common appliances that run on electricity * construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers * identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery * recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit * recognise some common conductors and insulators, and associate metals with being good conductors |
| **Spring 1 and 2: States of Matter** |  |  |
| * compare and group materials together, according to whether they are solids, liquids or gases * observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) * identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature |
| **Summer 1: Animals including humans** |  |  |
| * describe the simple functions of the basic parts of the digestive system in humans * identify the different types of teeth in humans and their simple functions * construct and interpret a variety of food chains, identifying producers, predators and prey. |
| **Year 4/ Year 6** | **Pupils not securing learning** | **Pupils achieving depth in learning** |
| **Summer 2: Living things and habitats** |  |  |
| * recognise that living things can be grouped in a variety of ways * explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment * recognise that environments can change and that this can sometimes pose dangers to living things |

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| **Y3/4 Working Scientifically:** | **Pupils not securing learning** | **Pupils achieving depth in learning** |
| * asking relevant questions and using different types of scientific enquiries to answer them |  |  |
| * setting up simple practical enquiries, comparative and fair tests |  |  |
| * making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers |  |  |
| * 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 |  |  |
| **Y3/4 Working Scientifically:** | **Pupils not securing learning** | **Pupils achieving depth in learning** |
| * 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 differences, similarities or changes related to simple scientific ideas and processes |  |  |
| * using straightforward scientific evidence to answer questions or to support their findings. |  |  |