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

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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
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| * setting up simple practical enquiries, comparative and fair tests
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| * making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
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| * gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
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| * recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
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| **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
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| * using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
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| * identifying differences, similarities or changes related to simple scientific ideas and processes
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| * using straightforward scientific evidence to answer questions or to support their findings.
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