**Science LTP – Cycle A Year 3 and 4**

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| **Autumn 1****Working Scientifically** | **Autumn 2****Plants** | **Spring Term****Living Things and their Habitats** | **Spring Term****Electricity** | **Summer 1****Light** | **Summer 2****Animals including Humans (Y3)** |
| * Working Scientifically, specifically
* Ask relevant questions and using different types of scientific enquiries to answer them
* Setting up simple practical enquires, comparative and fair tests
* Use straightforward scientific evidence to answer questions or to support their findings
* Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
* Reporting on findings from enquires, including oral and written explanations, displays or presentations of results or conclusions
 | * Identify and describe the functions of different parts of flowering plants
* Explore the requirements of plants for life and growth
* Investigate the way in which water is transported within plants
* Explore the part that flowers play in the life cycle of flowering plants
 | * 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.
 | * Identify common appliances that run on electricity
* Construct a simple series electrical circuit.
* Identify whether or not a lamp will light in a simple series circuit.
* Recognise that a switch opens and closes a circuit.
* Recognise some common conductors and insulators, and associate metals with being good conductors.

WS* Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
 | * Recognise that they need light in order to see things and that dark is the absence of light
* Notice that light is reflected from surfaces
* Recognise that light from the sun can be dangerous.
* Recognise that shadows are formed when the light from a light source is blocked by
* an opaque object
* Find patterns in the way that the size of shadows change.
 | * Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
* Identify that humans and some other animals have skeletons and muscles for support, protection and movement
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**Science LTP – Cycle B (Class 3) 2023-2024**

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| **Autumn 1****Working Scientifically** | **Autumn 2****Rocks** | **Spring 1****Sound** | **Spring 2Animals including Humans (Y4)** | **Summer 1****Forces and Magnets** | **Summer 2** **States of Matter** |
| * Working Scientifically, specifically:
* Setting up simple practical enquires, comparative and fair tests
* Recording simple findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables
* Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
* Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
* Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
* Identifying differences, similarities or changes related to simple scientific ideas and processes
 | * Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
* Describe in simple terms how fossils are formed when things that have lived are trapped within rock
* Recognise that soils are made from rocks and organic matter
 | * Identify how sounds are made
* Recognise that vibrations from sounds travel 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 vibrations
* Recognise that sounds get fainter as distance increases
 | * 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.
 | * Compare how things move on different surfaces
* Notice forces need contact between two objects, but magnetic forces can act at a distance
* Observe how magnets attract or repel.
* Compare and group together a variety of everyday materials
* Describe magnets as having two poles
* Predict whether two magnets will attract or repel each other, depending on which poles are facing.
 | * 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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