**Lower KS2 Science- CYCLE A**

**2 hour sessions per week**

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| **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2**  |
| Forces and Magnets | Animals includingHumans | All Living Things  | Plants  | States of Matter | Sound  |
| * Compare how things move on different surfaces
* Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance
* Observe how magnets attract or repel each other and attract some materials and not others
* Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
* Describe magnets as having 2 poles
* Predict whether 2 magnets will attract or repel each other, depending on which poles are facing
 | * 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
 | * 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
 | * Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
* Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant
 | * 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
* Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature
 | * Identify how sounds are made, associating some of them with something vibrating
* Recognise that vibrations from sounds travel through a medium t 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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**Lower KS2 Science- CYCLE B**

**2 hour sessions per week**

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| **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2**  |
| Rocks  | Light  | Living things and their Habitats  | Plants  | Animals including Humans  | Electricity  |
| * Compare and group together different kinds of rocks on the basis of their appearance and simple rock 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
 | * 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 and that there are ways to protect their eyes
* Recognise that shadows are formed when the light from a light source is blocked by a solid object
* Find patterns in the way that the size of shadows change
 | * Recognise that environments and habitats can change and that this can sometimes pose dangers to living things
 | * Investigate the way in which water is transported within plants
* Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal
 | * 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.
 | * 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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