**Lower KS2 Science- CYCLE A**

| **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2**  |
| --- | --- | --- | --- | --- | --- |
| States of Matter (4) | Rocks (3) | Sound (4) | Plants (3) | Electricity (4) | Consolidation |
| * 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 .
 | * 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
 | * 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
 | * 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 and nutrients from the solid, and room to grow) and how they vary from plant to plant
* Investigate the way in which water is transported within plants
* Explore the part that flowers play in the life cycle of flowering plants, including pollinations, seed formation and seed dispersal
 | * Recognise common appliances that run on electricity.
* Construct a range of simple closed series circuits. Draw these circuits with correct component symbols (named).
* Recognise and solve ‘errors’ in circuits to make them work.
* To know a switch opens and closes a circuit.
* To know conductors allow electrical (energy) to pass through them and insulators do not allow electrical (energy) to pass through.
 | Revisit and Revise topics taught throughout the year  |

**Lower KS2 Science- CYCLE B**

| **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2**  |
| --- | --- | --- | --- | --- | --- |
| Animals including humans (3) | Light (3) | Living things and their habitats (4)  | Animals including humans (4) | Forces and Magnets (3)  | Consolidation |
| * 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 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 sources is blocked by a solid object
* Find patterns in the way that the size of shadows change
 | * 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 and habitats can change and that this can sometimes pose dangers to living things.
 | * 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 that some forces need contact between 2 objects, but magnetic forces can act at a distance
* Observe how magnets attract and 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
 | Revise and revisit topics taught throughout the year  |