

- **Science: Year 4**

National Curriculum links:

- 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.
- 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.
- 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.
- 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 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.

Sequence of learning:				
Autumn	Spring		Summer	
Electricity	Living things and their habitats- Classification	States of matter	Animals including humans- teeth and digestion	Sound
Explain ways that electricity is generated.	Group living things in a variety of ways	Sort and describe materials.	Identify and name parts of the human digestive system.	Identify sound sources
Identify electrical appliances and the types of electricity use.	Generate questions to use in a classification key	Investigate gases and explain their properties.	Explain the functions of the digestive system.	Explain how sound travels
Identify complete and incomplete circuits.	Use a key to identify invertebrates	Investigate materials as they change state.	Identify the types and functions of teeth.	Explore pitch
Identify and sort materials into electrical conductors or insulators.	Create a classification key	Explore how water changes state	Ask scientific questions and choose a scientific enquiry to answer them.	Investigate ways to absorb sound
Explain how a switch works and why they are needed.	Recognise positive and negative changes to the local environment	Investigate how water evaporates.	Construct and interpret food chains.	
Record and report on an investigation into electrical circuits	Describe environmental dangers to endangered species	Identify and describe the different stages of the water cycle.		

Key vocabulary:

Electricity	Appliance	Mains	Circuit
Classification	Environment	Human impact	Migrate
Sound / Sound source	Vibration	Pitch	Insulation
Solid	Liquid	Gas	State Change
Digestion	Teeth – incisor, canine, molar	Saliva	Digestive system