

• 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 lessons:

<u>Autumn</u>		<u>Spring</u>		<u>Summer</u>	
<u>Electricity and circuits</u>	<u>States of matter</u>	<u>Living things- Classification and changing habitats</u>	<u>Making connections: How does the flow of liquids compare?</u>	<u>Teeth and digestion</u>	<u>Sound and vibrations</u>

Using electricity	Solids	Grouping living things: Vertebrates and invertebrates	Investigating liquids- Planning	The human digestive system	Vibrations
Building circuits	Liquids and gases	Grouping living things: Plants	Investigating liquids- Gathering data	Human teeth	Sound waves
Switching on and off	Melting and freezing	Classification keys	Investigating liquids- Analysing concluding and evaluating	Investigating dental hygiene	Volume
Investigating electrical conductors and insulators	Condensing and evaporating	Habitats and seasonal change	Investigating liquids- Extending	Teeth of carnivores, herbivores and herbivores	Volume and distance
Investigating bulb brightness	Water cycle	Human impacts on habitats	Investigating liquids- Presenting	Producers, predators and prey in food chains	Pitch
Electrical safety	Climate change and the water cycle	Natural changes to habitats		Poo clues	Sound insulation

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