

# Electricity SCIENCE

## Key Vocabulary

**Electricity**- energy caused by the movement of electrons through matter

**Electrical appliance/device**- an item that runs on electricity.

**Mains**- electricity supplied to a building through wires

**Electrical circuit**- a route, or movement that starts and finishes at the same place

**Complete circuit**- a complete path which electricity can flow.

**Component**- a part of something

**Cell**- a device containing electrodes.

**Battery**- a container consisting of one or more cells.

**Connect/connections**- to join together

**Loose connection**- an imperfect connection

**Short circuit**- a device of lower resistance than a normal circuit

**Conductor**- anything that carries or allows passage of heat, electricity, or sound.

**Insulator**- a material that insulates

**Metal**- a solid mineral element that can conduct heat or electricity

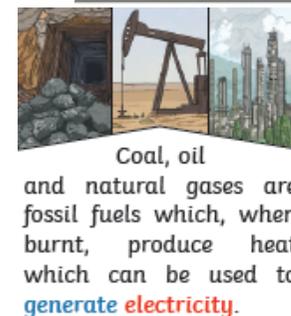
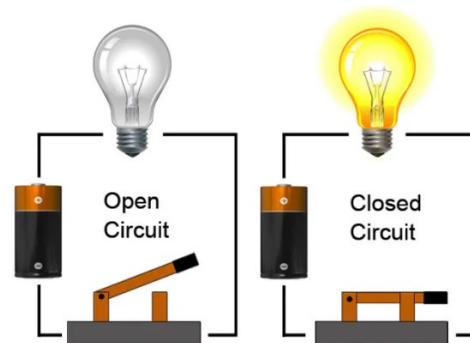
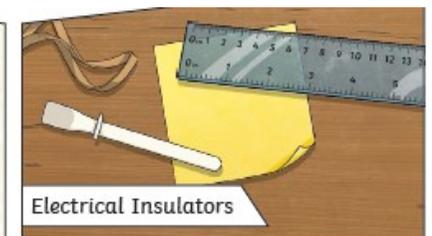
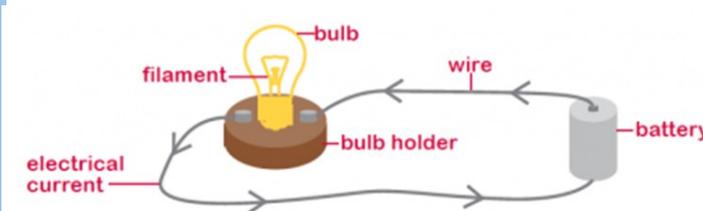
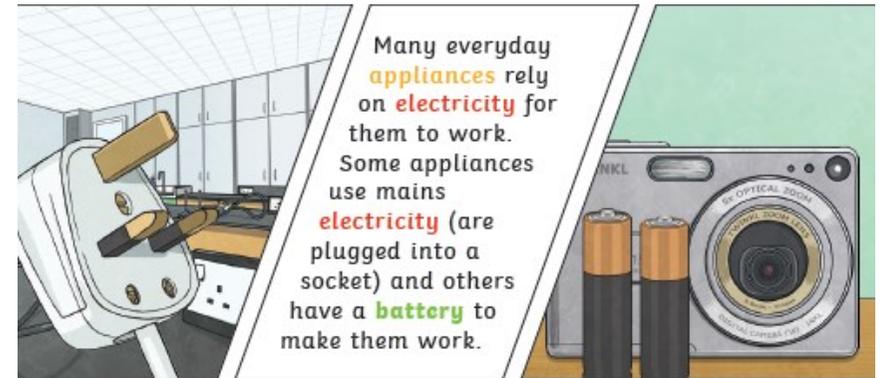
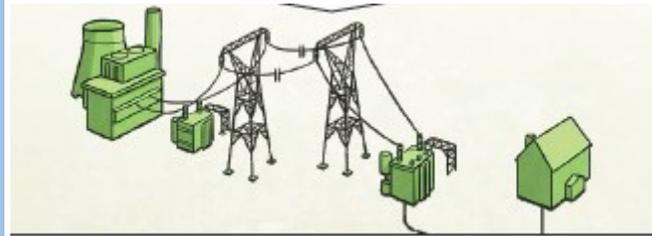
**Non-metal**- an element without the chemical characteristics of a metal

**Bulb, switch, buzzer, motor, crocodile clip**

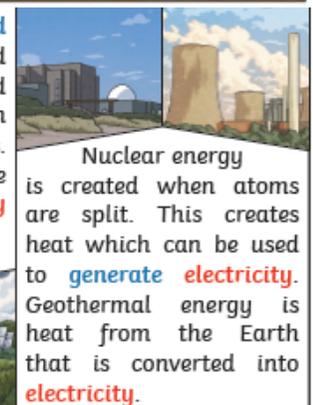
## What I should already know?

The similarities and differences in relation to places, objects, materials and living things. About the features of the immediate environment and how environments might vary from one another. Make observations of animals and plants and explain why some things occur and talk about changes. (Early Learning Goal)

## Key learning points.



Electricity can be generated from wind power used to turn windmills and hydroelectric power from water used in dams. The Sun's rays can be converted into electricity by solar panels.



## Key Vocabulary

**Digestive system-** the parts of the body that work together to break down food

**Digestion-** the process by which the stomach and intestines change food into a form that the body can use as energy.

**Saliva-** a liquid produced by glands in the mouth

**Oesophagus-** a tube that moves food from the mouth to the stomach

**Stomach-** the organ in the body begins to digest food.

**Small intestine-** The small intestine digests food and absorbs nutrients into the blood.

**Nutrients-** something in food that helps people, animals, and plants live and grow

**Large intestine-** The large intestine absorbs water from digested food and forms solid waste matter.

**Rectum-** the straight section of the large intestine connected to the anus.

**Anus-** the opening at the lower or rear end of the intestines.

**Teeth: incisor, canine, molar, premolars**

**Herbivore-** an animal that only feeds on plants.

**Carnivore-** an animal that eats the flesh of other animals

**Omnivore-** eats both plants and animals

**Producer-** makes its own food (a plant)

**Predator-** an animal that preys on others

**Prey-** an animal hunted for food

**Food chain-** organisms each dependant on the next as a source of food.

# Animals Including Humans

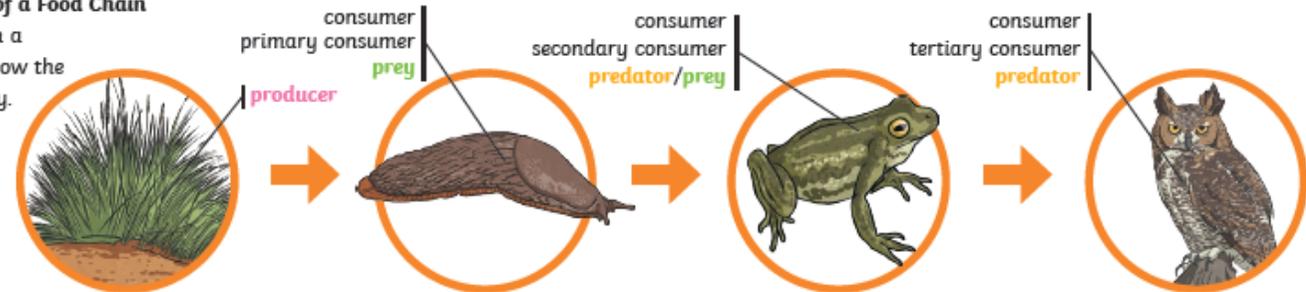
# SCIENCE

## What I should already know?

- A variety of common animals that are carnivores, herbivores and omnivores ( year 1).
- The basic needs of animals, including humans, for survival. The importance for humans of exercise, eating the right amounts of different types of food, and hygiene. (Year 2 - Animals, including humans)
- 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 (year 3).

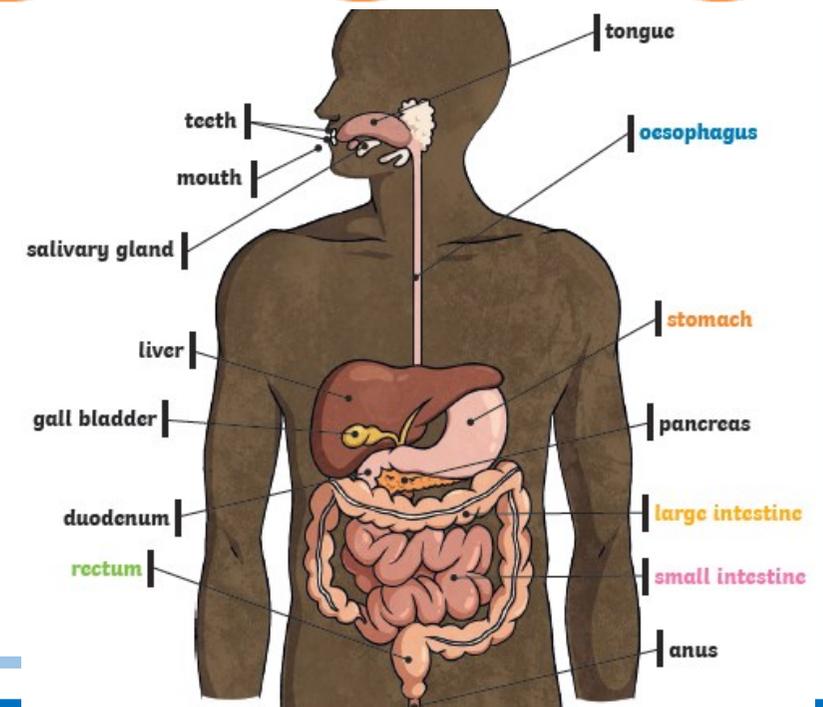
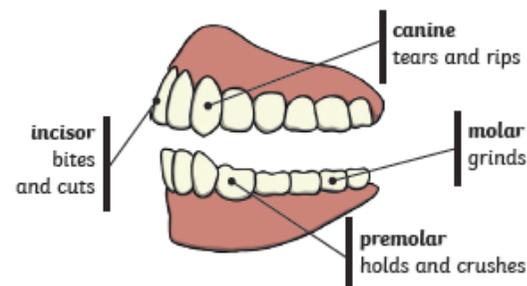
## An Example of a Food Chain

The arrows in a food chain show the flow of energy.



## Key learning points.

### Human Teeth and Their Functions





## Key Vocabulary

**Classification-** an order or group in which something is classified

**Classification keys-** a series of questions about an organisms characteristics.

**Environment-** the things and conditions that are all around one

**Habitat-** the natural environment of an animal or plant

**Human impact-** changes caused by humans

**Positive-** certain, sure or meaning yes.

**Negative-** saying or meaning no, not helpful

**Migrate-** the natural environment of an animal or plant

**Hibernate-** to sleep through the winter in a den or burrow to save energy.

# Living Things and Their Habitats

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## What I should already know?

- A variety of common wild and garden plants, including deciduous and evergreen trees. The basic structure of a variety of common flowering plants, including trees. (Y1 - Plants)
- A variety of common animals including fish, amphibians, reptiles, birds and mammals. The structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, Year 1 – Animals, including humans)
- A variety of plants and animals in their habitats, including microhabitats. (Year 2 - Living things and their habitats)

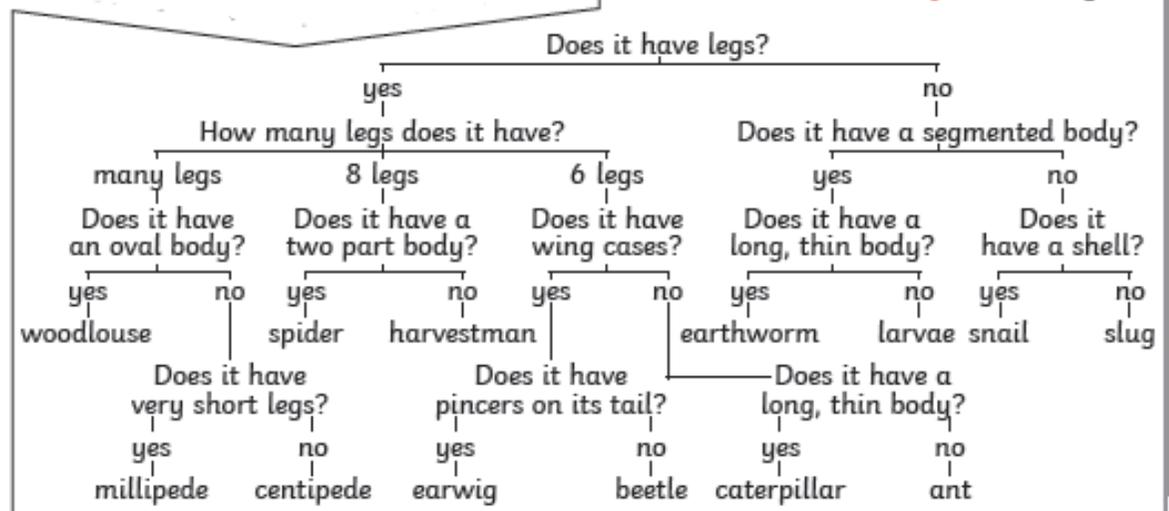
## Key learning points.

### Life Processes

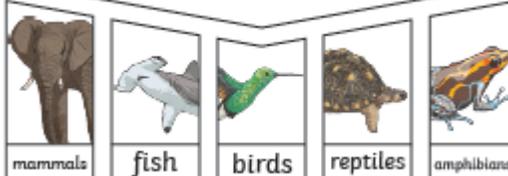
To stay alive and healthy, all living things need certain conditions that let them carry out the seven life processes:

	<b>Growth</b>
<b>Movement</b>	<b>Reproduction</b>
<b>Respiration</b>	<b>Excretion</b>
<b>Sensitivity</b>	<b>Nutrition</b>

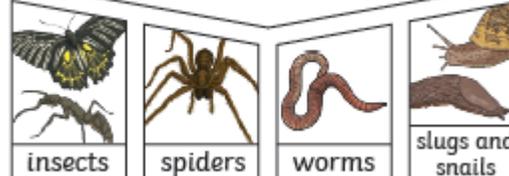
### Invertebrate Classification Key



### vertebrates



### invertebrates



### Flowering Plants



### Non-Flowering Plants



## Key Vocabulary

**Solid**— having a firm shape or form.

**Liquid**- a form that flows easily

**Gas**- a form of matter that is neither liquid nor solid

**State change**— changing from a solid, liquid or gas to another state.

**Melting**- to change from a solid to a liquid state

**Freezing**- to harden into ice or become solid

**Melting point**- the temperature at which a given solid turns into liquid.

**Boiling point**- the temperature at which a liquid starts to boil

**Evaporation**- to turn from liquid into gas; pass away in the form of vapor.

**Temperature**- the degree of heat or cold of an object or an environment.

**Water cycle**- the process by which water on the earth evaporates, then condenses in the atmosphere, and then returns to earth in the form of precipitation.

# Changes of States

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## What I should already know?

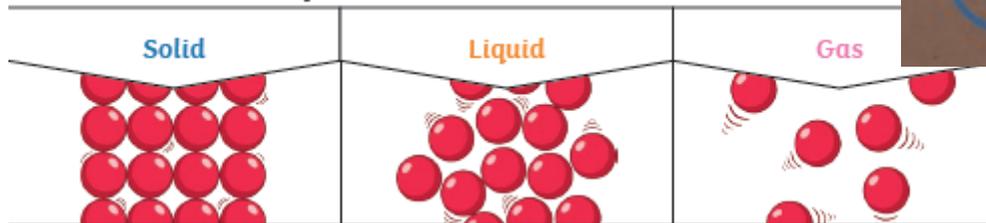
**Year 1 - Everyday materials:** The material from which an object is made. A variety of everyday materials, including wood, plastic, glass, metal, water, and rock. The simple physical properties of a variety of everyday materials. A variety of everyday materials on the basis of their simple physical properties.

**Year 2 - Uses of everyday materials:** The suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. How the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

## Key learning points.



There are three states of matter.





## Key Vocabulary

**Sound-** anything that people or animals can hear with their ears

**Source-**the start or cause of something

**Vibrate-** to move back and forth very rapidly and steadily

**Vibration-** an act or instance of vibrating

**Travel-** to journey from place to place

**Pitch (high, low)-** the rate in which vibrations are produced.

**Volume-** amount of sound

Faint- weak or slight

**Loud-** a large amount of sound

**Insulation-** material used to insulate something

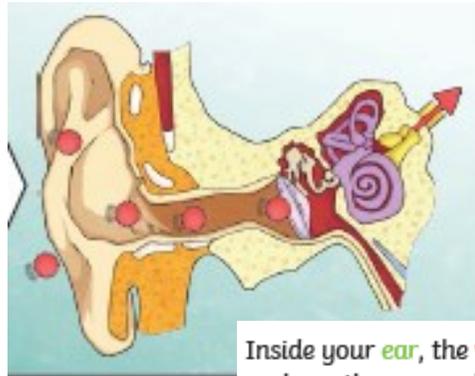
# Sound

# SCIENCE

## What I should already know?

- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Year 1 - Animals, including humans)

## Key learning points.



Inside your **ear**, the **vibrations** hit the **eardrum** and are then passed to the middle and then the inner **ear**. They are then changed into electrical signals and sent to your brain. Your brain tells you that you are hearing a sound.

Sound is a type of energy. Sounds are created by **vibrations**. The louder the sound, the bigger the **vibration**.

