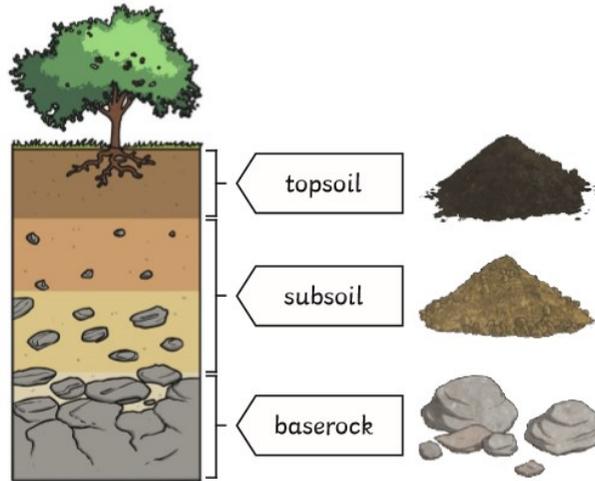


# Year 3 Autumn 1

## Science Topic : Rocks

### What should I already know?

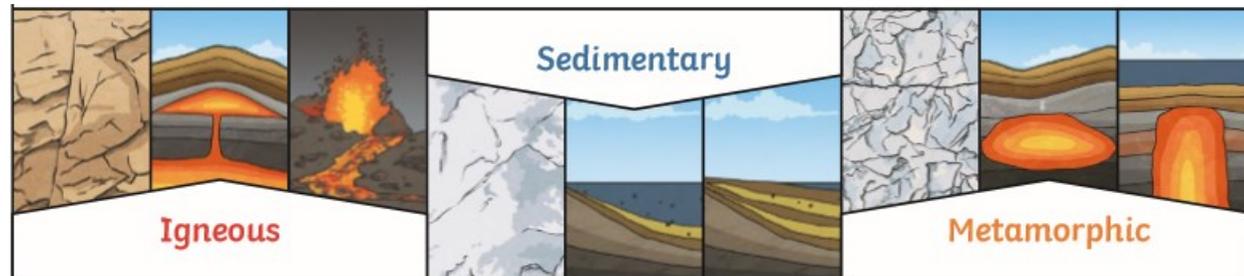
- There are different types of rocks
- Rocks can be used for many things including structures.
- Sand is a made of small pieces of rock.



### Key Knowledge:

- There are three types of naturally occurring rock- Igneous, Sedimentary and Metamorphic.
- Some rocks are man made - brick, concrete and coade stone.
- Caves are formed when water permeates rock and erodes away.
- Soil is the uppermost layer of the Earth. It is made up of minerals, air, water and organic matter.

	Vocabulary
Igneous rock	Rock that is formed from magma or lava.
Sedimentary rock	Rocks that have been formed by layers of sediment being pressed down hard and sticking together. You can see the layers of sediment in the rock.
Metamorphic rock	Rock that started out as igneous or sedimentary but changed due to being exposed to extreme heat or pressure.
Lava	Molten rock that comes out of the ground is called lava.
Magma	Molten rock that remains underground.
Sediment	Natural solid material that is moved and dropped off in a new place by water or wind. For example: sand.
Permeable	Allows liquids to pass through it.
Impermeable	Does not allow liquids to pass through it.
Fossilisation	The process by which fossils are made.
Palaeontology	The study of fossils.
Erosion	When water, wind or ice wears away land.



# Year 4 Autumn 1

Science Topic : Animals including humans

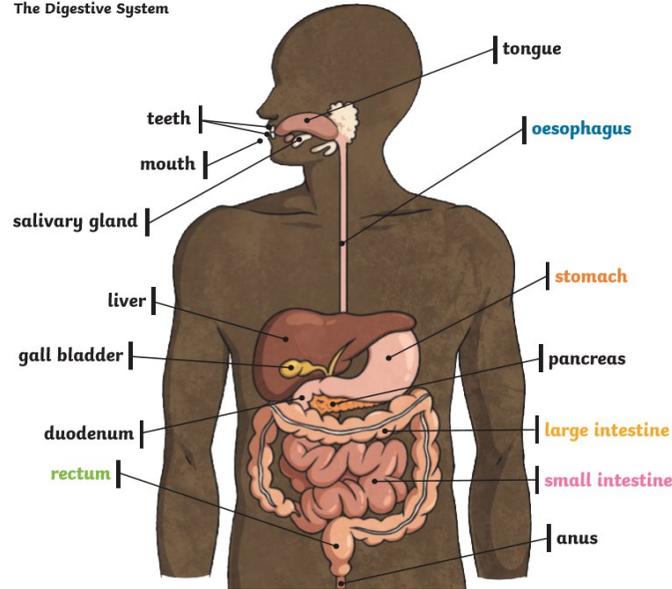
## What should I already know?

- That animals and humans have skeletons and muscles to support them and allow movement.
- Animals and humans have to eat to gain their nutrition. They cannot make their own food.
- Humans need to brush their teeth to keep them healthy.

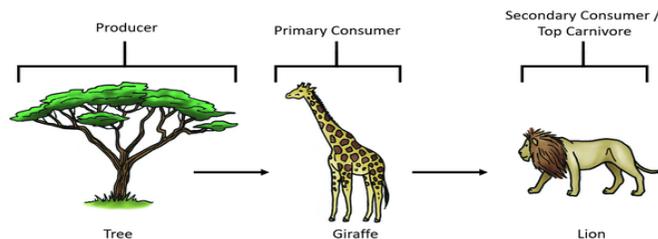
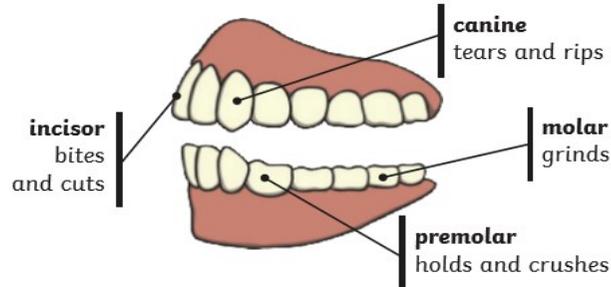
## Key Knowledge:

- The digestive system is the process in which food moves through the body and important nutrients are extracted to support the bodies functions.
- The teeth of an animal are designed to eat different foods depending on the diet of the animal.
- A food chain shows the passing of energy from a producer to its consumers.

The Digestive System



Human Teeth and Their Functions



## Vocabulary

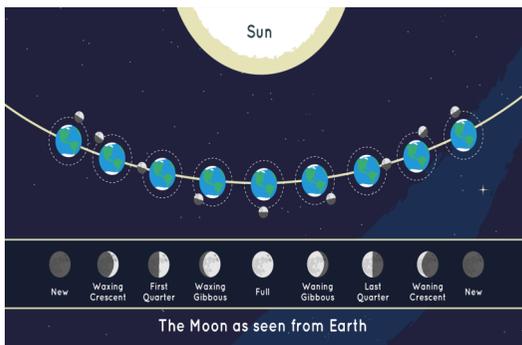
<b>Digest</b>	Break down food so that it can be used by the body.
<b>Oesophagus</b>	A muscular tube that moves food from the mouth to the stomach.
<b>Stomach</b>	An organ in the digestive system where the food is broken down with the stomach acid and being churned around.
<b>Small intestine</b>	Part of the intestine where nutrients are absorbed into
<b>Large intestine</b>	Part of the intestine where water is absorbed from remaining food waste. Faeces are formed in the large
<b>Rectum</b>	Part of the digestive system where faeces are stored
<b>Herbivore</b>	An animal that eats plants,
<b>Carnivore</b>	An animal that feeds on other animals.
<b>Omnivore</b>	An animal that eats plants and animals.
<b>Producer</b>	An organism, such as a plant, that produces its own food.
<b>Predator</b>	An animal that hunts and eats other animals.
<b>Prey</b>	An animal that gets hunted and eaten by another animal,

# Year 5 Autumn 1

## Science Topic : Earth and Space

### What should I already know?

- Humans live on planet Earth.
- Earth is part of a solar system made of other planets.
- Astronauts have travelled in to space to learn more about where we live.

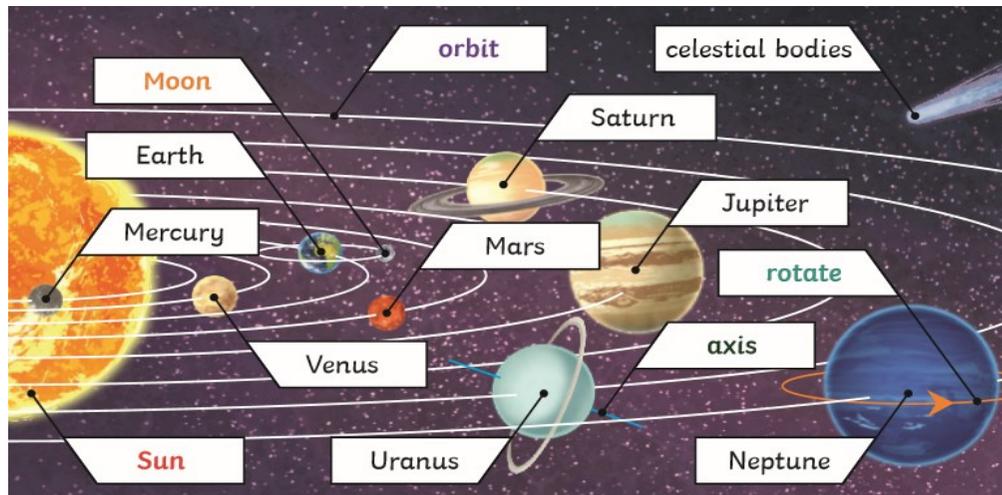


### Key Knowledge:

- The solar system is made up of many different planets and stars. We name 8 of them.
- Mercury, Venus, Earth and Mars are rocky planets made of rock and metal.
- Jupiter, Saturn, Uranus and Neptune are gassy planets made of helium and hydrogen.
- In 2006 Pluto was reclassified as a dwarf planet.
- The Earth's full rotation on its axis takes 24 hours.
- It takes the Earth just over 365 days to orbit the sun.

### Vocabulary

Sun	A huge star that the Earth and other planets in our solar system orbit around.
Star	A giant ball of gas held together by its own gravity.
Moon	A natural satellite which orbits the Earth or other planets.
Planet	A large object, round or nearly round, that orbits a star.
Sphere	A round 3D shapes in the shape of a ball.
Spherical bodies	Astronomical shapes that are shaped as a sphere.
Satellite	Any object or body in space that orbits something else. For example: the Moon is a satellite for Earth.
Orbit	To move in a regular, repeating curved path around another object.
Rotate	To spin (the Earth rotates on its axis).
Axis	An imaginary line that a body rotated around. (Earth's axis runs from the North to South Pole)
Geocentric model	A belief that people used to have that other planets and the Sun orbited the Earth.
Heliocentric model	The structure of the Solar System where the planets orbit around the sun.
Astronomer	Someone who studies or is an expert in space science.



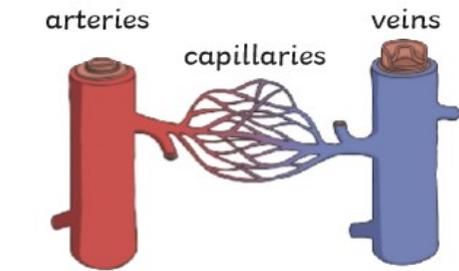
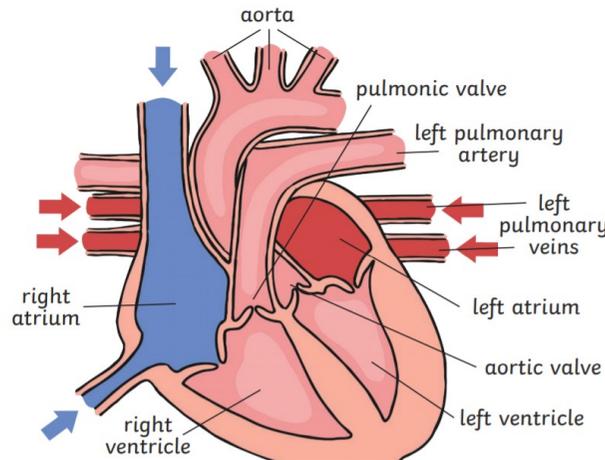
# Year 6 Autumn 1

Science Topic : Human body

## What should I already know?

- The different things the body needs in order to stay healthy.
- The names of the different parts of the body.
- Animals gain nutrients through their diet choices.

## The Human Heart



deoxygenated blood



oxygenated blood



## Key Knowledge:

- The heart is the key organ in the circulatory system that pumps blood to the lungs for oxygen and oxygenated blood to the rest of the body.
- Arteries, capillaries and veins carry blood around the body to different places.
- A healthy diet involved eating the right nutrients at the right amounts.
- A healthy lifestyle includes a healthy diet and regular exercise.
- Drugs, alcohol and smoking can have negative effects on the body.

## Vocabulary

<b>Circulatory system</b>	A system that includes the heart, veins, arteries and blood transporting substances around the body.
<b>Heart</b>	An organ which constantly pumps blood around the circulatory system.
<b>Blood vessels</b>	The tube like structures that carry blood through the tissues and organs. Veins, arteries and capillaries are the three types of blood vessels.
<b>Oxygenated blood</b>	Oxygenated blood has more oxygen. It is pumped from the heart to the rest of the body.
<b>Deoxygenated blood</b>	Deoxygenated blood is where most of the oxygen has already been transferred to the rest of the body.
<b>Drug</b>	A substance containing natural or man made chemicals that has an effect on your body when it enters your
<b>Alcohol</b>	A drug produced from grains, fruits and vegetables when they are put through a process called
<b>Nutrients</b>	Substances that animals need to stay alive and healthy.

