
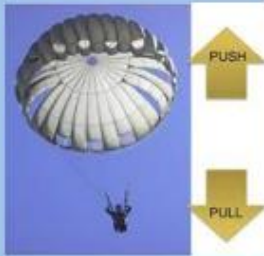
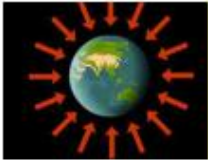







Forces (Year 5)

Vocabulary				
water resistance	air resistance	gravity	mass	Newton (N)
				
A kind of friction that slows things down as they move through water.	A kind of friction that slows objects down as they travel through air.	Force that attracts people or things to <u>huge</u> objects such as the Earth.	Amount of matter in an object	The unit to measure force.

pulley	lever	gear
		

Things I already know that I can connect new knowledge with:







- Some forces are invisible such as magnetic fields. (Y3)
- Friction is a force between two surfaces. Rough surfaces create greater friction. Smooth surfaces create less friction. (Y3)

Knowledge:

- Gravity is a force that pulls objects towards the centre of the Earth.
- Friction occurs when two objects move against each other. It gives us grip which allows us to start and stop moving.
- Air and water resistance are forms of friction. Upthrust is the force that can keep objects afloat.
- Objects with a large surface area have greater air and water resistance than objects with a smaller surface area.
- Simple machines (pulleys, levers and gears) can increase the force applied to an object.

Properties and Changes of Materials (Year 5)


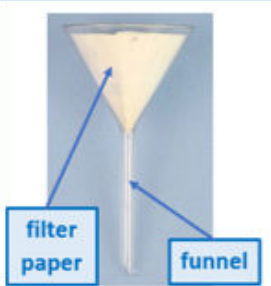

Vocabulary

chemistry	dissolve	insoluble	irreversible	reversible	soluble
					
Part of science that examines substances.	Mixes completely to make a transparent liquid.	Can't dissolve in a liquid.	Chemical change that can't be changed back.	Physical change that can be changed back.	Can dissolve in a liquid.

Important People

Spencer Silver:
Discovered the glue for sticky notes.

Separating

Evaporation	Filtration	Sieving
		<p>Used for a mixture of solids. Different sized holes are used for separating different sized solids.</p> 

Things I already know that I can connect new knowledge with:



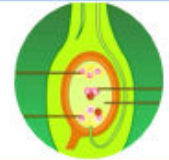



- I can describe properties of materials. (Y1)
- Different materials are suitable for different uses. (Y2)
- There are three states of matter: solids, liquids and gases. (Y4)
- Evaporation, condensation and freezing are processes whereby water can change between the three states. (4)

Knowledge:

- Materials can be grouped by their properties. Materials are suited to purposes based on them. Some properties can be seen but others can be found by testing.
- Thermal conductivity means that heat can be transferred through a material.
- A solution is a mixture of a solid in liquid where the solid has broken into parts too small to see. Dissolving is a process where one substance becomes incorporated with another to form a solution.
- Some substances are soluble. Some are not.
- Mixtures can be separated using sieves, filters and magnets.
- Dissolved solvents can be regained by evaporation. Heating a solution up can speed up the process of evaporation.
- All changes are either reversible or irreversible. Dissolving a solid in a liquid is a reversible change.
- Where burning has occurred, the change is irreversible.

Living Things and Their Habitats (Year 5)

Vocabulary

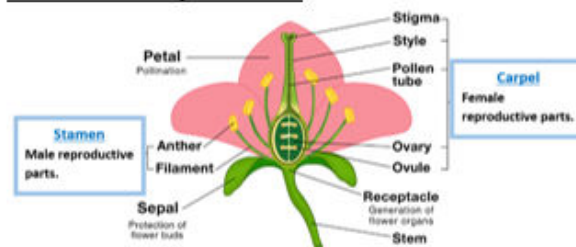
asexual reproduction	life cycle	fertilization	metamorphosis	offspring	sexual reproduction
					
Producing offspring from only one plant.	A series of changes in the life a living thing.	Joining of male and female cells.	Change to an animal's body structure as it grows.	Children or young produced by reproduction.	Producing offspring from joining two organism's cells.

Important People:

[David Attenborough:](#)
A broadcaster and natural historian

[Jane Goodall:](#) A primatologist and world expert on chimpanzees.

Sexual Plant Reproduction



Asexual Plant Reproduction



Knowledge:

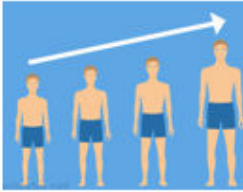



- Oak trees grow from acorns and become a habitat for many animals. Squirrels are mammals that can make their nests in oak trees, eat acorns and reproduce. These are examples of local plants and animals that are interconnected.
- Different types of animals have different life cycles.
- A mammal is born live and grows into a mature adult.
- Most amphibians hatch from eggs underwater before undergoing metamorphosis.
- Many insects lay eggs that hatch into larvae. These look very different from the adult. They then undergo metamorphosis.
- Birds hatch from eggs.
- Most plants reproduce when a male and female cell are combined to make a seed.
- Some plants reproduce asexually. This means fertilisation does not take place.

Things I already know that I can connect new knowledge with:

- I can describe characteristics of fish, birds, mammals, reptiles, amphibians, insects and arachnids. (Y4)
- I know that some plants produce and grow from seeds, while others produce no seeds and grow from spores. (Y4)

Animals Including Humans (Year 5)

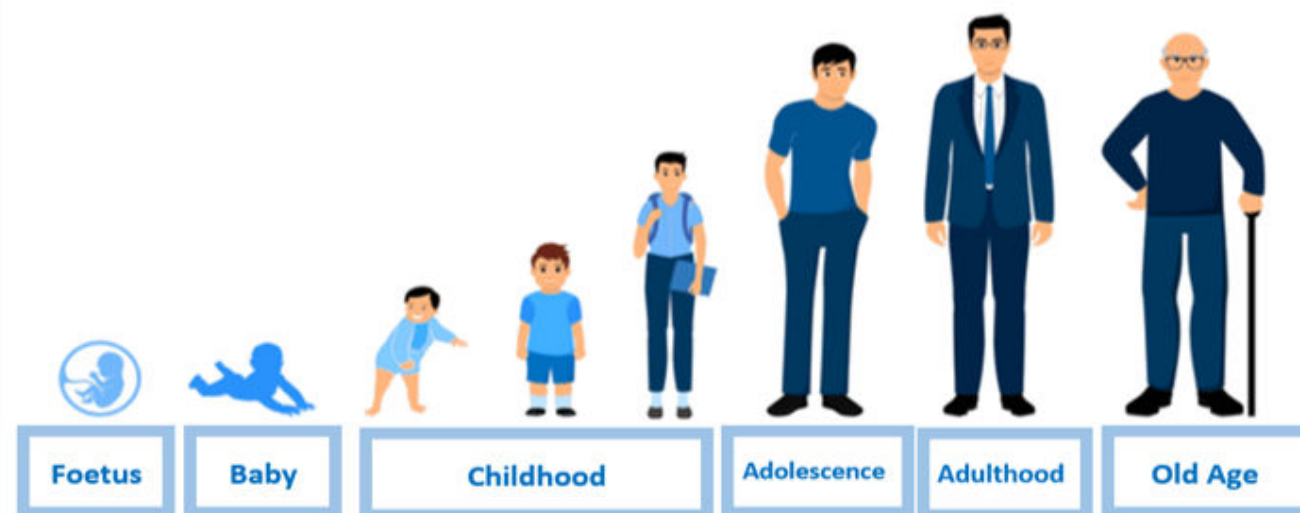
Vocabulary

adolescence	foetus	gestation	puberty	hormone
				
Period of changing from a child into an adult.	Unborn or unhatched offspring.	The time in which the foetus develops from fertilisation to birth.	Process of adolescents become capable of reproduction.	A chemical released in the body that helps other parts of the body to function.

Knowledge:

- Humans have a gestation period of nine months. Different mammals have different gestation periods.
- Human babies need immediate care and attention after birth.
- Once born, humans grow steadily through childhood. When they reach puberty they become able to reproduce.
- During puberty hormones are released into the bloodstream that cause physical, mental and emotional changes.
- Humans stop growing at about 20 years old. Humans can expect to live around 80 years but many live for much

Human Life Cycle



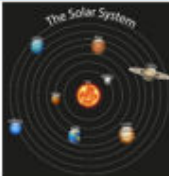





Things I already know that I can connect new knowledge with:

- Mammals give birth to live young called offspring. (Y5)
- The joining of male and female cells is called fertilisation. (Y5)

Earth & Space (Year 5)

Vocabulary

axis	rotate	gravity	galaxy	orbit	satellite
Imaginary line an object turns around.	Spin around on an axis.	A pulling force that is obvious if an object is huge, like the Earth or the Sun.	System of millions or billions of stars.	Path of an object around a particular point in space.	Something that orbits the Earth or another planet.
					

Important People:

Nicolaus Copernicus:
[Made a model of the universe that placed the Sun rather than Earth at the centre of it.](#)

The Solar System



- There are **8 planets** in the solar system. They **orbit the sun**.

Knowledge:

- Galaxies are groups of stars held together by gravity. Our galaxy is called the Milky Way.
- Gravity is a force that pulls all objects together. The Earth's gravity holds us to Earth's surface. The Sun's gravity holds the planets in the Solar System in orbit around it.
- The Earth rotates on its axis which is why the Sun appears to move across the sky during the day.
- The Moon is the Earth's natural satellite as it moves around the Earth.
- Depending on where the Sun and the Moon are, we can see all, some or none of the Moon. These are known as

Things I already know that I can connect new knowledge with:

- Some forces are invisible such as magnetic fields. (Y3)
- Gravity is a pulling force that huge objects exert on other objects. (Y5 Forces)