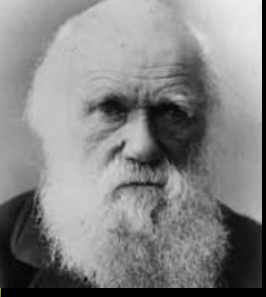


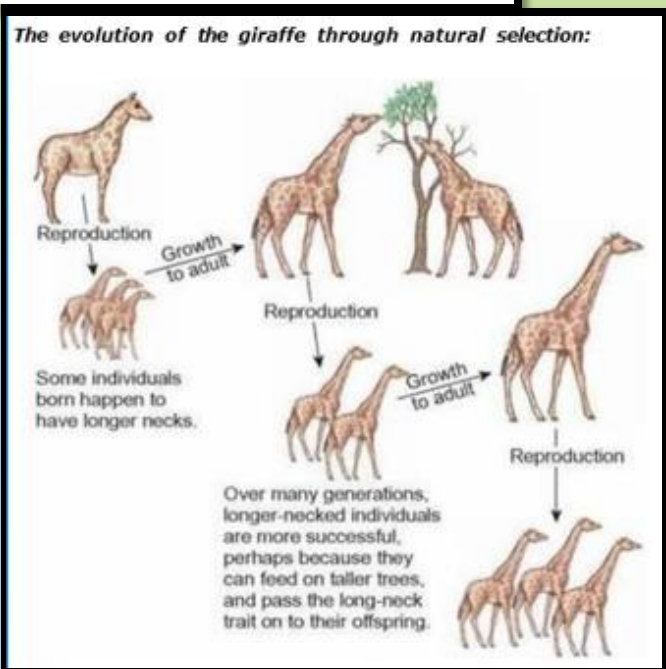
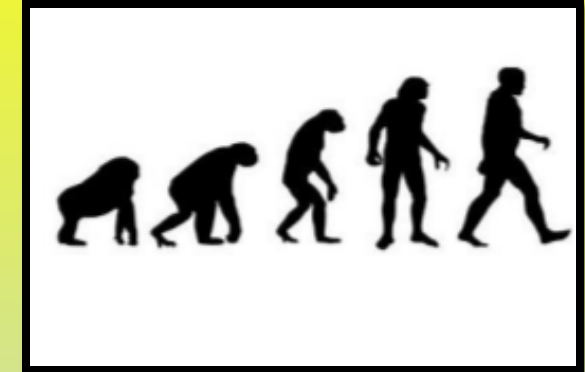
Year 6 Autumn 1 Science – Evolution and Inheritance



Charles Darwin (1809-1882) Charles Darwin's theory of evolution by natural selection is the foundation upon which modern evolutionary theory is built.

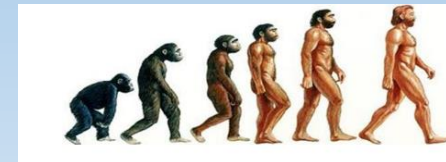
Key Knowledge we will learn this term:

- The theory of evolution by natural selection as formulated by Charles Darwin. Organisms change over time as a result of changes in inheritable physical or behavioural traits.
- That inheritance is characteristic traits that are passed to offspring from their parents e.g. hair colour, eye colour. Natural selection is when the strongest traits survive over generations.
- That fossils provide information about living things from the past.
- That living things have changed over time (Adaptation) as a result of the surroundings in which they live.



Key Vocabulary:

Adapt
Evolve/Evolution
Offspring
Generation
Fossil
Inherit



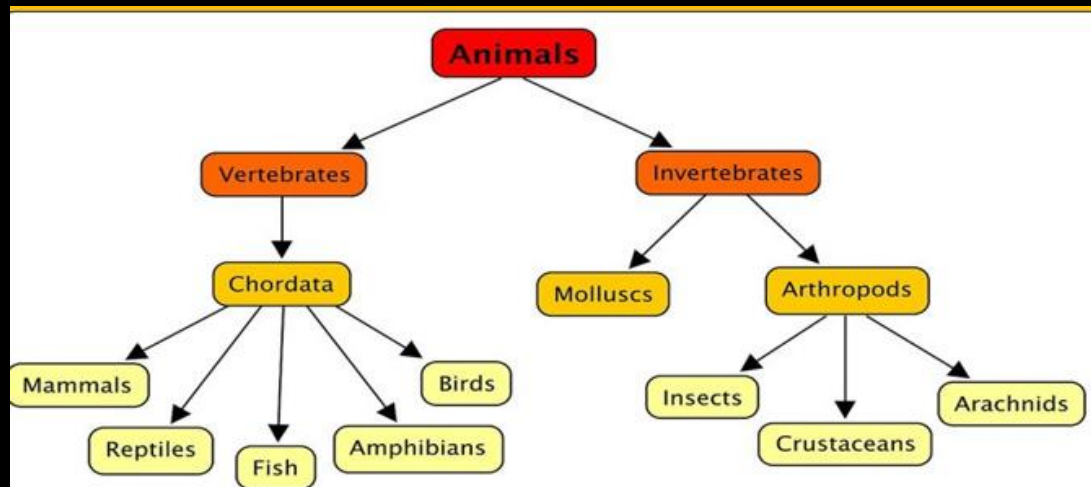


Year 6 Autumn 2 Science – Classification of Living Things



Key Learning:

- Describe how living things are classified into broad groups based on similarities and differences, including micro-organisms, plants and animals.
- Give reasons for classifying plants and animals.
- Living things can be grouped into micro-organisms, plants and animals.
- Vertebrates can be grouped as fish, amphibians, reptiles, birds and mammals.
- Invertebrates can be grouped as snails and slugs, worms, spiders and insects.
- Plants can be grouped as flowering plants (incl. trees and grasses) and non-flowering plants (such as ferns and mosses).
- Microorganisms are very tiny living things. They are so small that they are not visible to the naked eye, so a microscope is needed to see them.
- Microorganisms can be found all around us. They can live on and in our bodies, in the air, in water and on objects around us. They can be found in almost every habitat on Earth.



Key Vocabulary:

Microorganism
Classify/Classified
Kingdom
Vertebrate/Invertebrate
Virus, Fungus, Bacteria



Year 6 Science Spring 1 The Circulatory System



Characteristics of living things

MRS NERG



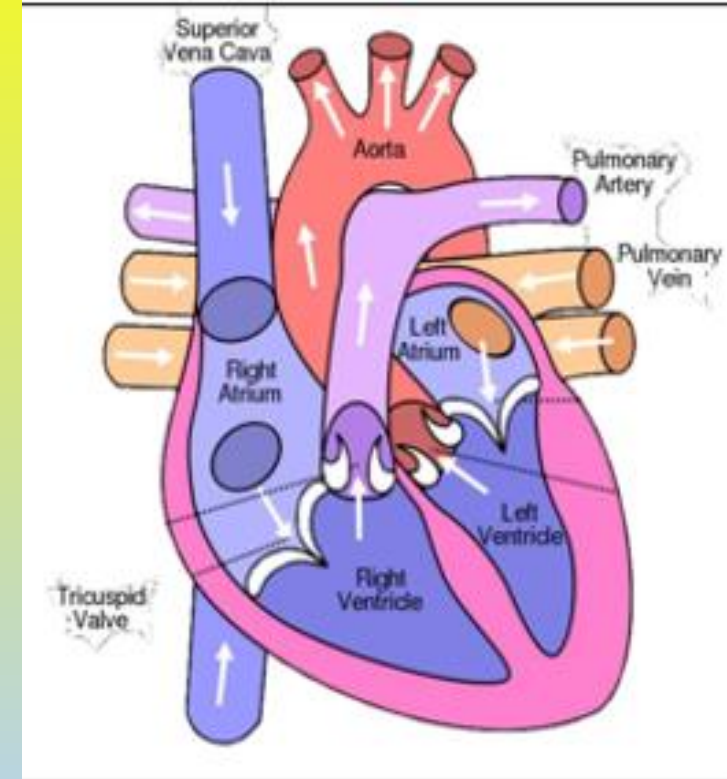
- Movement
- Respiration
- Sensitivity
- Nutrition
- Excretion
- Reproduction
- Growth

Key Vocabulary:

- Pulmonary Vein/Artery
- Muscle
- Oxygenated/Deoxygenated
- Ventricle
- Valve

Key Knowledge:

- That the heart is a muscle and a pump. It pumps oxygenated blood around the body and deoxygenated blood to the lungs.
- Blood carries Oxygen, Nutrients and Water to vital organs and muscles
- Valves stop blood flowing backwards or in the wrong direction
- The more we exercise, the more oxygenated blood is needed by our muscles. This is why our heart beats faster when we exercise.
- Drugs and Alcohol can effect our body and heart (this may be covered in PSHE sessions)
- Nutrition is important to our overall health. Nutrition labels on foods tell us what is in the food we eat. Highly processed foods often contain less nutrients than other foods.
- Living things can be classified by the acronym 'MRS NERG'

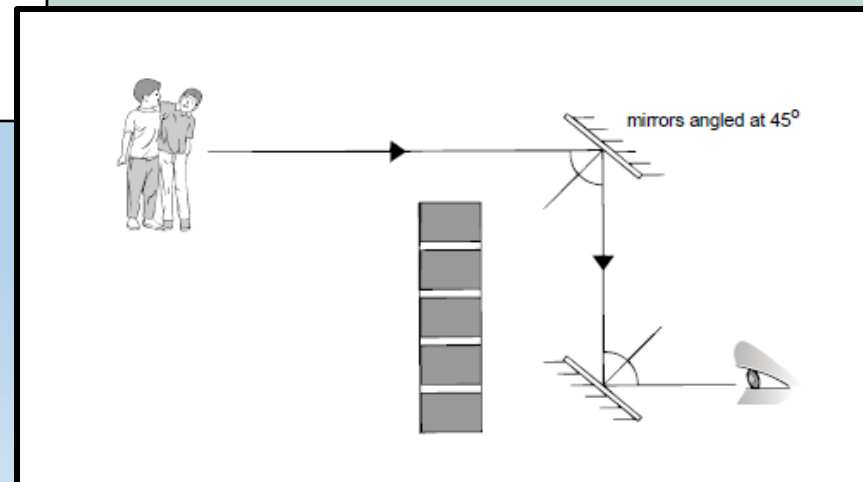
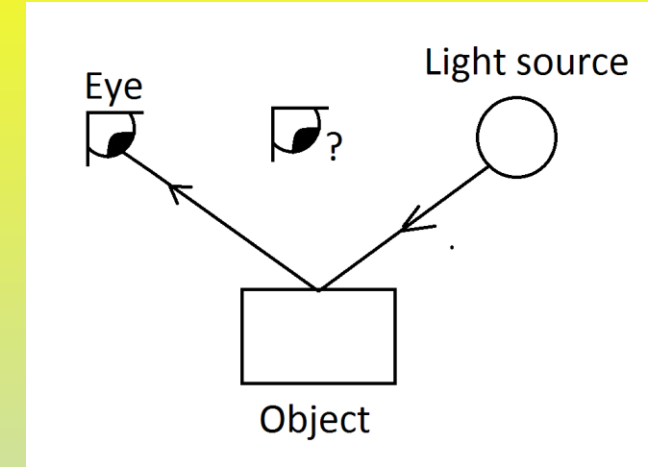
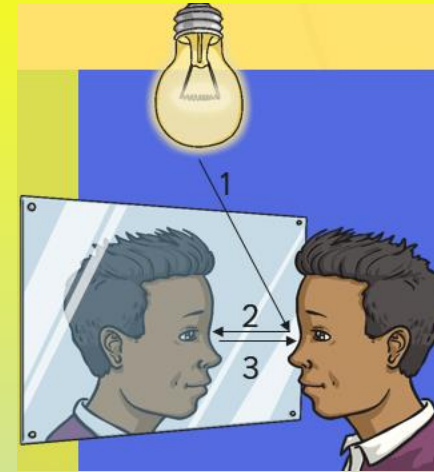


Year 6 Science Spring 2 – Light



Key Knowledge:

- Recognise that light appears to travel in straight lines.
- Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.
- Explain that we see things because the light that travels from light sources to our eyes or from light sources to objects and then to our eyes (and represent this in simple diagrammatic form).
- Create a periscope to demonstrate that light travels in straight lines and can be reflected
- Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.



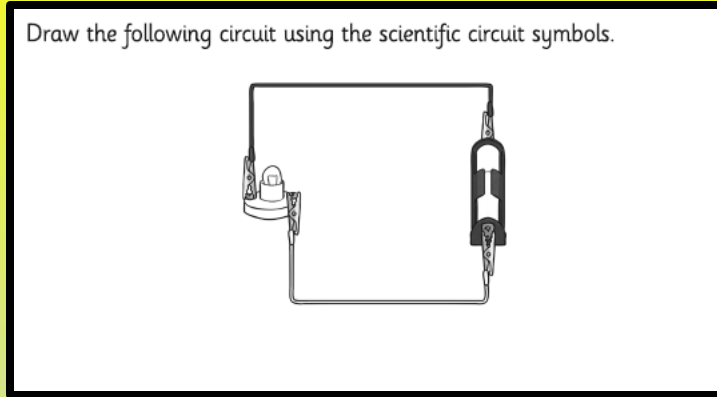
Key Vocabulary:

- Light
- Source
- Reflect
- Shadow
- Translucent
- Transparent
- Opaque



Year 6 Science Summer 1 and 2 Electricity

Key Vocabulary:
cell (battery),
wire,
bulb, bulb holder,
buzzer, motor,
switch (open/closed),
complete circuit,
electrical conductor,
electrical insulator,
component,
circuit symbol,
circuit diagram,
standard symbols



Key learning:

- We will match circuit symbols to their meanings and their words
- We will predict then investigate what happens when more batteries are added to a circuit
- We will Systematically identify the effect of changing one component at a time in a circuit
- We will use circuit symbols when representing a simple circuit in a diagram.
- We will investigate what happens when the length of the wires change
- We will know how to work safely with Electricity

Circuit Symbols	
Symbol	Component
	ammeter
	battery
	bulb
	buzzer
	cell
	motor
	resistor
	switch (open)
	switch (closed)

