

What? (Key vocabulary)

Evolution	Evolution means change over time. IT is the reason we have so many species on earth. It happens when there is competition to survive (natural selection) and through the difference within a species caused by inheritance and mutations.
Inheritance	Inheritance is when something is passed on to the next generation through genes. Offspring are not identical to their parents and some characteristics are inherited (carried in offspring from parents) and other differences are new in the offspring – these are called mutations.
Adaption	A change in a plant or animal's body to suit its location which can evolve over thousands of years in the most efficient way. If they don't adapt, then they may not survive.
Species	A group of animals, plants or micro-organisms which share a wide range of common characteristics and can breed together produce offspring
Organisms	An individual animal, plant, or single-celled life form
Characteristics	A feature or quality belonging to a person or animal
Offspring	The young of an animal or the seedling of a plant
Generation	The time between when an organism comes into being and when it reproduces
Variation	A change or slight difference
Genes	The gene is the basic unit of inheritance. It is the part of a cell of a living thing which controls its physical characteristics
Mutation	Mutations are random changes (which are not inherited from the parents).
Natural selection	The process where organisms that are better adapted to their environment survive and produce more offspring
Cell	The basic building block of living things. Every animal or plant is made of millions of these.

Key Scientist Charles Darwin 1809 – 1882

Charles Darwin is an English scientist best known for his theory of evolution. He was a geologist who went travelling in 1831 on the HMS Beagle. He saw many animals and plants and came up with the idea of natural selection (the strongest survive and evolve). His book 'Origin of the Species' was released in 1859 and was controversial because it went against the creation story in the Bible.



A polar bear has adapted to camouflage itself against white snow / ice so it can hunt without being seen.



A camel has humps of fat storage to use up for energy in the dry desert when there is a shortage of food.



A cactus stores water to help keep it alive in the desert. It also has spikes to protect itself from attack.

FOSSILS



Fossils are the remains of living things which inhabited the world millions of years ago. They are formed in sedimentary rock (sand, mud and pebbles squashed under layer, after layer over time) and plants / animals get trapped in these layers, revealing their shape.

When palaeontologists compare fossils to animals from today, they can see similarities and identify relationships between them. Since evolution of a species happens over such long periods of time, evidence is usually taken from fossils.



HUMAN SKULL



CHIMPANZEE SKULL