



Key People/Scientists



Mary Anning
(1799-1847)

A pioneering palaeontologist and fossil collector who made some of the most significant geological finds of all time.



Charles Darwin
(1809-1882)

Famous for his work on natural selection, the idea that all species of life have evolved over time from common ancestors.



Alfred Wallace
(1823-1913)

A British naturalist, explorer, biologist and social activist who is best known for proposing a theory of natural selection.

Key Questions

How have living things on earth changed over time?

Living things gradually change over many generations in a process called **evolution**. Evolution ensures that organisms are fully adapted to their surroundings, and gives rise to new species, as well as making others extinct. The driving force for evolution is **natural selection**.

Why do animals adapt to their environment?

Adaptation is a way an animal's body helps it survive, or live, in its environment. Camels have learned to adapt (or change) so that they can survive. Animals depend on their physical features to help them obtain food, keep safe, build homes, withstand weather, and attract mates.

How do we get our characteristics?

Characteristics are passed from parents to their offspring. This is the same for animals, although variation in offspring over time can make animals more or less able to survive in particular environments.

What is DNA?

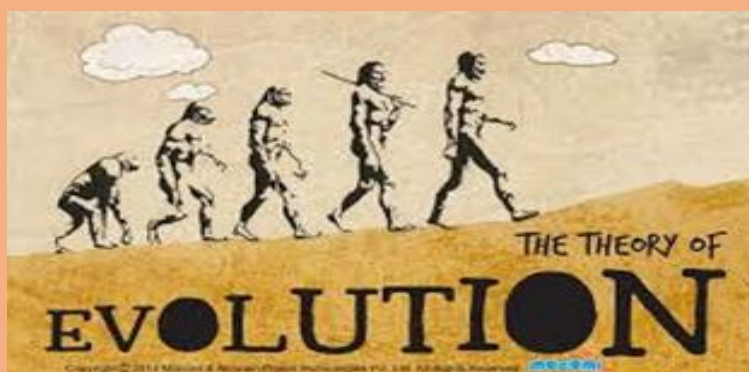
DNA is information in our body that our body uses to build cells.

Misconceptions/Key facts

Misconception: Evolution claims that we evolved from monkeys.

Fact: Evolution predicts that all life on the planet is related. That is to say that if you go back enough generations, you'll come to a common ancestor for any two life forms. For humans and chimpanzees, the best evidence strongly suggests that the line leading to humans diverged from the line leading to chimpanzees six or seven million years ago.

Diagrams/Visual Aids



Key Vocabulary

adaptation	The process of change by which an organism or species becomes better suited to its environment.
evolution	The process by which different kinds of living organism are believed to have developed from earlier forms during the history of the earth.
extinct	No longer in existence.
fossils	The remains or impression of a prehistoric plant or animal embedded in rock and preserved in petrified form.
maladaptation	Failure to adjust adequately or appropriately to the environment or situation.
natural selection	The process whereby organisms better adapted to their environment tend to survive and produce more offspring.
palaeontologist	A person who studies of fossils to determine the structure and evolution of extinct animals and plants.