



KEY PEOPLE



Charles Darwin (1809 - 1882): Best known for his contributions to the science of evolution. He established that all species of life have descended over time from common ancestors.



Man has managed in just a few centuries and in some cases decades to speed up the evolutionary process. This is called domestication. Man can deliberately select the traits he wishes to pass to the next generation. For example dogs have been bred over time to become tame and more attractive.

KEY IDEA



Charles Darwin concluded that species must evolve. Each species is competing for scarce food and must adapt to secure food to survive and produce offspring. Those that adapt best will survive, those that don't will become extinct.



Some characteristics are inherited from our parents through our genes (e.g. eye colour, hair colour) while other characteristics come from choices we make and the way that we live, such as where we live, the food we eat or exercise we take (environmental characteristics).



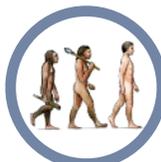
Darwin's realised that Finches adapted their beaks to the different food sources that were available. For example in areas where nut were surrounded by tough cases only the birds with strong beaks would be able to get to the food and therefore more likely to survive.



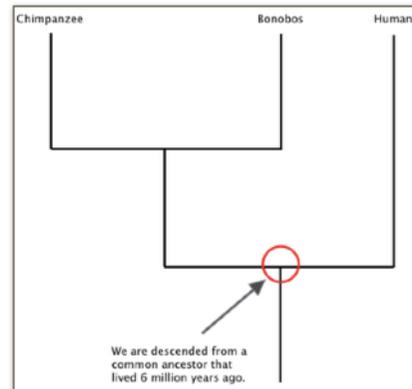
Evidence for evolution can be found in fossils. Also evidence can be found in bones. The order that bones join up is the same in all mammals only the proportions are different. These show that mammals all descended from a common ancestor.



Animals adapt to their environment but certain advantages an animal may have can mean a sacrifice in others. For example cheetah's can run at great speeds for only a short time before they runs out of stamina, so it might not always have a successful hunt.



Humans did not evolve from chimpanzees we are descended from a common ancestor who lived 6 million years ago. Humans are cousins of chimpanzees.



KEY VOCABULARY

Ancestors	A person from whom one is descended
Natural selection	The process by which forms of life having traits that better enable them to adapt will tend to survive and reproduce in greater numbers
Adaptation	The ability of a species to survive because of alterations of form or behaviour brought about through natural selection
Inheritance	The genetic characters transmitted from parent to offspring
Evolution	Explains how living things change over a long time, and how they have come to be the way they are
Decendents	Be a blood relative of (a specified ancestor)
Fossils	Any remains, impression, or trace of a living thing of a former geologic age, as a skeleton, footprint, etc.
Genes	A gene is the basic physical and functional unit of heredity. Genes are made up of DNA.
Domestication	To tame (an animal), especially by generations of breeding, to live in close association with human beings as a pet or work animal and usually creating a dependency so that the animal loses its ability to live in the wild.
Species	The basic category of biological classification, composed of related individuals that resemble one another, are able to breed among themselves, but are not able to breed with members of another species.

