KEY VOCABULARY

Adaptation - How living things are specialised to suit their environment.

Evolution - The process by which living things can gradually change over time.

Variation - The differences between living things in a species.

Fossils - the remains or impression of a prehistoric plant or animal embedded in rock and preserved in fossilised form.

Inheritance - The process of passing on features from parents to offspring.

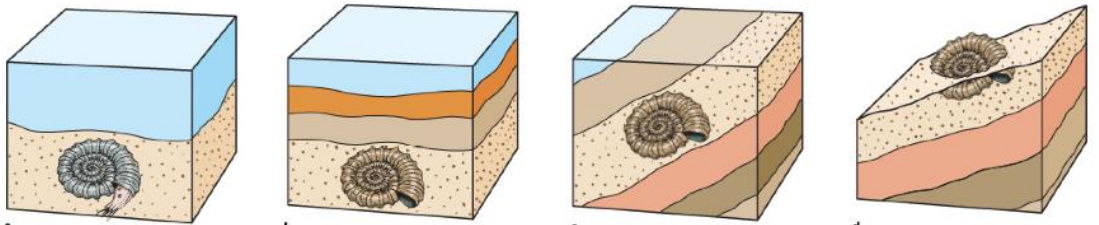
Species - A group of living things with very similar characteristics. They can breed together to make more living things of the same type.

Palaeontologists - a scientist who studies fossils.

Mutations - random changes (which are not inherited from the parents).

Extinct - having no living members of a species left.

How are fossils formed?



a
An ammonite dies and falls to the bottom of the sea where it is covered by sediments and protected from being eaten by other animals. The soft parts of its body decay, leaving just the shell.

b
More and more sediment covers and squeezes the shell. The shell may remain or be replaced with minerals such as quartz or limestone that seep into it in solution before the original shell dissolves.

c
After millions of years, movement in the Earth's crust may thrust the layer of sedimentary rock containing the fossil upwards to form part of a mountain range.

d
Weathering and erosion may eventually wear away some of the rock to expose part of the fossil. Fossils are often found in road cuttings or quarries.

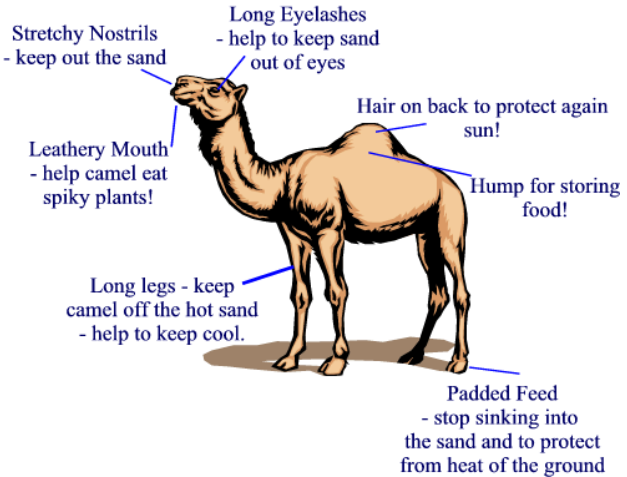
What is evolution?

Important Scientists

Charles Darwin- Created the theory of evolution. This said that all species had evolved from simple life forms.

Alfred Wallace- He was a naturalist or co-published the theory of evolution

How have animals adapted to their environment?



Talking points

What is the evidence for evolution?

What features do animals have that make them adapted to their habitat?

How might humans evolve in the future?