Year 6 Science

Evolution and Inheritance

Things you should already know;

In year 5 you would have learnt to:

describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
describe the life process of reproduction in some plants and animals.

New Learning for Year 6.

- To understand that living things have changed over time.
- To recognise that fossils provide information about living things that inhabited the Earth millions of years ago.
- To recognise that living things produce offspring of the same kind but that these offspring will vary and are not identical to their parents.
- To identify how animals and plants are suited to their environment but that adaptation may lead to evolution.

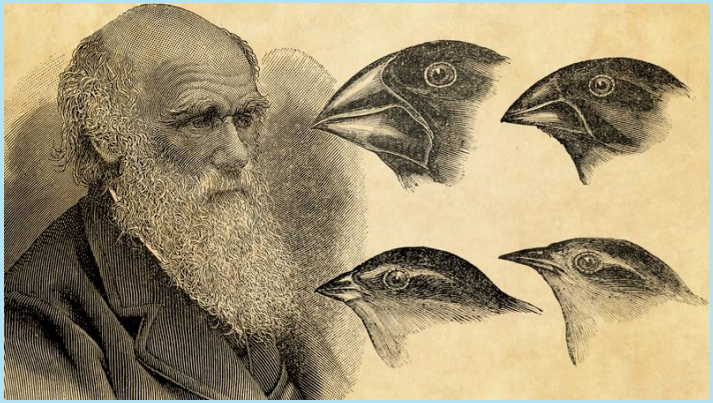
Key Knowledge

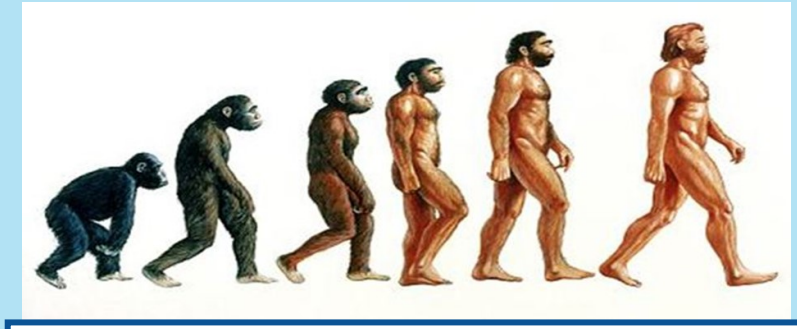
That offspring have variations from their parents and that these variations can be adaptive traits (influenced by the environment) and inherited traits (eg: eye colour). That living things adapt to their environment and that evolution is the gradual process of how living things have changed/developed over millions of years. Natural selection is where variations of a species survive because they are better suited to their environment.

Charles Darwin's

Theory of Evolution

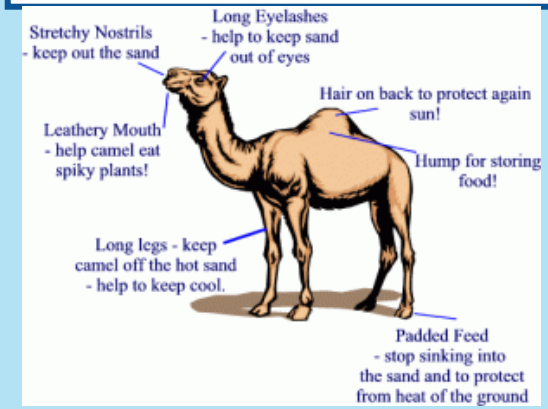
Darwin studied finches and noticed that their beaks were different in order to survive different conditions.

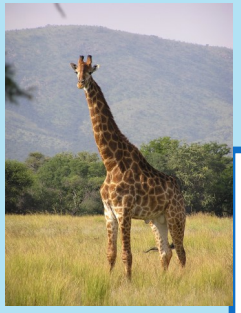




Evolution is the gradual process by which different kinds of living organism have developed from earlier forms over millions of years. Scientists have proof that living things are continuously evolving - even today!

Fossils are the preserved remains, or partial remains, of ancient animals and plants. Fossils let scientists know how plants and animals used to look millions of years ago. This is proof that living things have evolved over time.





Amazing Facts

Natural Selection Fossils of giraffes from millions of years ago show that they used to have shorter necks. They have gradually evolved through natural selection to have longer necks so that they can reach the top leaves on taller trees

Year 6 Science

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Key Vocabulary

Adaptation	The process of change so that an organism or species can become better suited to their environment.
Fossil	The remains or impression of a prehistoric plant or animal embedded in rock and preserved.
Breeding	The mating and production of offspring by animals.
Environment	The surroundings or conditions in which a person , animal or plant lives.
Evolution	The process by which different kinds of living organisms are believed to have developed from earlier forms during the history of earth.
Inherit	To gain a quality, characteristic or predisposition genetically from a parent or ancestor.
Selective breeding	The process by which humans use animal breeding and plant breeding to develop selective characteristics by choosing particular animals and plants
Reproduction	The production of offspring by a sexual or asexual process
Variation	The differences between individuals within a species.
Adaptive traits	Genetic features that help a living thing to survive.
Inherited traits	Traits that are from parents . Within a family there are often similar traits eg: curly hair.
Natural selection	The process where organisms that are better adapted to their environment tend to survive and produce more offspring.
Offspring	The young animal or plant that is produced by the reproduction of that species.

Sticky Learning.

Can you answer any of these questions in your

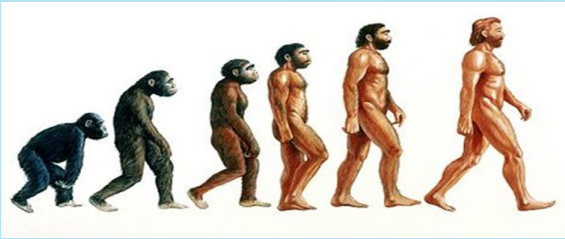
A cactus is adapted to survive in dry conditions. Label its adaptations on a diagram

Scan this and have a go at an quiz about Evolution

List 3 ways a lion has adapted to catch its prey

Describe how the Galapagos finches helped to support Charles Darwin's theory of evolution

List 3 ways a penguin is adapted to live in a cold climate.



Use the diagram to list ways that humans have changed over time.