



Year 6 Science Knowledge Organiser: Evolution & Inheritance



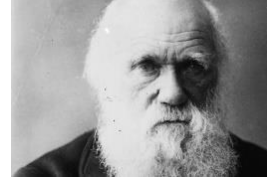
Subject Specific Skills

- I can recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
- I can recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
- I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Prior Learning

- Pupils should have some knowledge of fossils and how they formed.
- Pupils may know that humans 'came from apes'.

Key Individuals Charles Darwin



Mary Anning



Key Vocabulary

Adaptation - An adaptation is a trait (or characteristic) changing to increase a living thing's chances of surviving and reproducing.

Characteristics - are passed from parents to their offspring.

Environment - many habitats and areas where there are both living and non-living things.

Evolution - The gradual change in living things over many generations, due to changes in inherited characteristics.

Fossils - The remains or imprint of a prehistoric plant or animal, embedded in rock and preserved.

Inherited - When a characteristic that is passed down from parents to offspring through genes.

Offspring - Animals and plants produce offspring that are similar but not identical to them.

Sexual reproduction - a form of reproduction in which genetic material from two individuals of opposite sexes mixes to create offspring.

Species - a group of similar organisms that are able to reproduce

Vary - changes within a species



Offspring

Animals and plants produce **offspring** that are similar but not identical to them. **Offspring** often look like their parents because features are passed on.

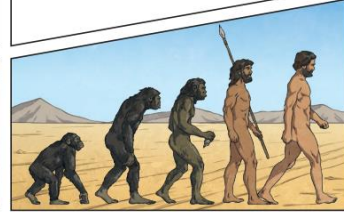
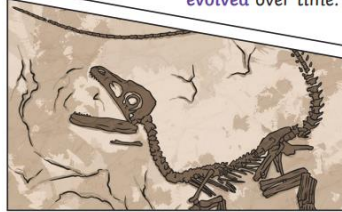
Variation

In the same way that there is **variation** between parents and their **offspring**, you can see **variation** within any species, even plants.



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.

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!



Adaptive Traits

Characteristics that are influenced by the **environment** the living things live in. These **adaptations** can develop as a result of many things, such as food and climate.



Inherited Traits

Eye colour is an example of an **inherited trait**, but so are things like hair colour, the shape of your earlobes and whether or not you can smell certain flowers.



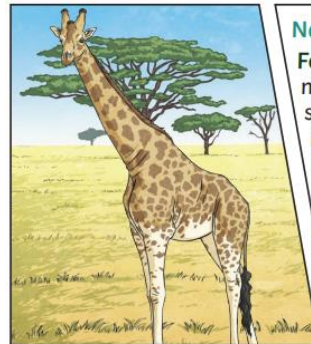
Habitats

A good **habitat** should provide shelter, water, enough space and plenty of food.



Environments

There are many types of **environment** around the world. Polar regions, deserts, rainforests, oceans, rivers, and grasslands are all **environments**.



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.