

Frogwell School Year 6 Science Knowledge Organiser Term 2

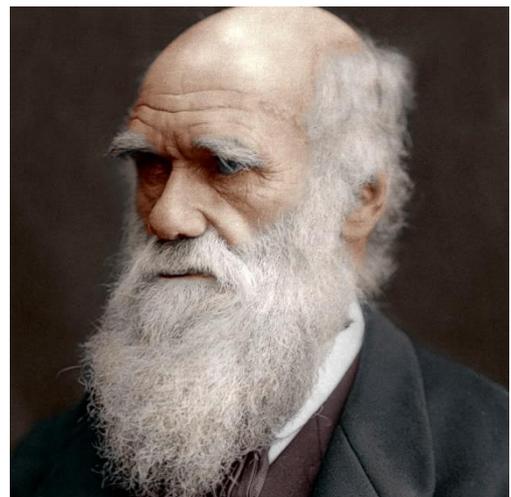
Evolution and Inheritance

What I already know:

- I can identify that most living things live in habitats to which they are suited and can describe how different habitats provide for the basic needs of different kinds of animals and plants.
- I know that animals, including humans, have offspring which grow into adults.
- I can describe in simple terms how fossils are formed when things that have lived are trapped within rock.
- I recognise that environments can change and that this can sometimes pose dangers to living things.

| <u>Key Vocabulary</u> | |
|------------------------------|--|
| offspring | The young of an animal or a plant |
| sexual reproduction | The joining of genetic information that leads to a new individual |
| vary | To make different; to change to something else |
| characteristics | The distinguishing features that are specific to that species |
| Natural selection | The key mechanism of evolution. It determines which traits become more or less common and therefore reproduced |
| suited | When a plant or animal has characteristics that allow it to live in a certain place. |
| adapted | When plants and animals change their characteristics, over many generations, to suit their environments. |
| environment | An environment contains many habitats and includes areas that contain living and non-living things. |
| inherited | When characteristics are passed on from parents to their offspring. |
| species | A group of animals or plants that have shared characteristics. |
| fossils | The remains of a prehistoric plant or animal that has been embedded in rock and preserved. |

Charles Darwin (1809 – 1882) is considered to be the 'Father of Evolution'. It was whilst he voyaged around the world on board HMS Beagle; as the ship's naturalist, that he began to develop his Theory of Evolution. An idea that all living things evolved and changed over time and generations to suit their environments. Many years later, and after a lifetime of study, Darwin published his book: The Origin of Species. It is this theory that became the foundation of modern evolutionary studies and even though his findings were not well received at first; they are now accepted as fact.



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

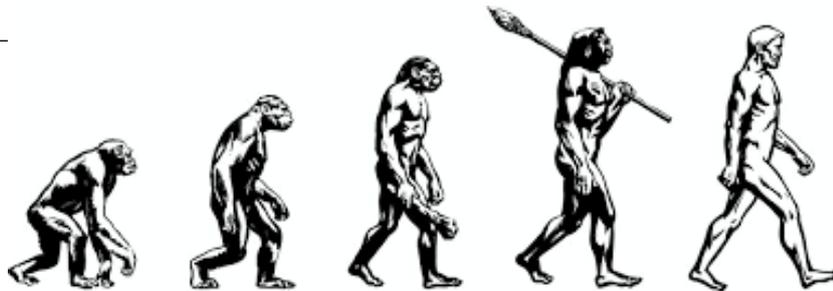


Natural Selection.

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.



Evolution is the gradual process by which different kinds of living organisms 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.



Inherited traits. Eye colour is an example of an inherited trait, but there are also things like hair colour, height and skin colour. Inherited traits are features that an offspring gets from their parents.

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.