

# Evolution, Adaptation and Inheritance

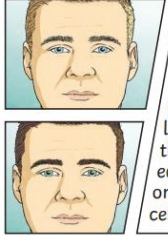


**Offspring**  
Animals and plants produce **offspring** that are similar but not identical to them. **Offspring** often look like their parents because features are passed on.

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



**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.

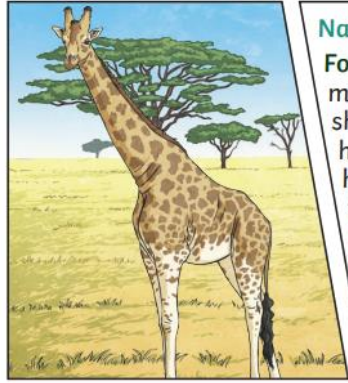
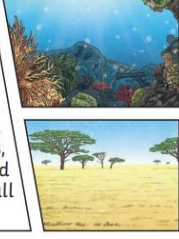


**Inherited Traits**  
Eye colour is an example of an **inherited** trait, but so are things like hair colour, the shape of your earlobes and whether or not you can smell certain flowers.



**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**.

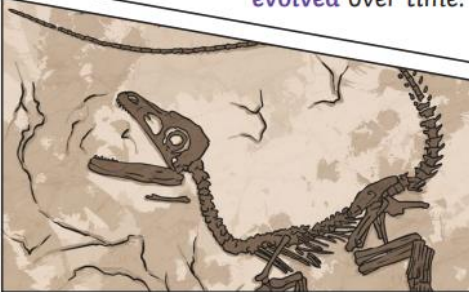


**Natural Selection**  
Fossils of giraffes from millions of years ago show that they used to have shorter necks. They have gradually **evolved** through **natural selection** to have longer necks so that they can reach the top leaves on taller trees.

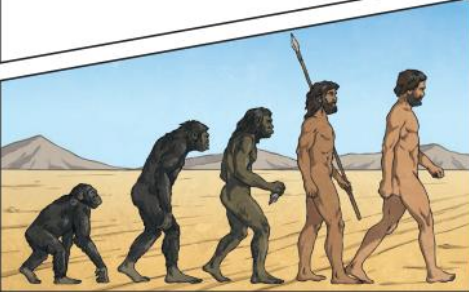
## Key Vocabulary

|                        |   |
|------------------------|---|
| <b>offspring</b>       | The young animal or plant that is produced by the reproduction of that species.   |
| <b>inheritance</b>     | This is when <b>characteristics</b> are passed on to <b>offspring</b> from their parents.   |
| <b>variations</b>      | The differences between individuals within a species.   |
| <b>characteristics</b> | The distinguishing features or qualities that are specific to a species.  |
| <b>adaptation</b>      | An <b>adaptation</b> is a trait (or <b>characteristic</b> ) changing to increase a living thing's chances of surviving and reproducing. |
| <b>habitat</b>         | Refers to a specific area or place in which particular animals and plants can live.   |
| <b>environment</b>     | An <b>environment</b> contains many <b>habitats</b> and includes areas where there are both living and non-living things.               |

**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!



| Living Things | Habitat    | Adaptive Traits   |
|---------------|------------|---|
| polar bear    | arctic     | Its white fur enables it to camouflage in the snow.         |
| camel         | desert     | It has wide feet to make it easier to walk in the sand.     |
| cactus        | desert     | It stores water in its stem.                                |
| toucan        | rainforest | Its narrow tongue allows it to eat small fruit and insects. |