

# Science – Evolution

## Concept – Evolution – Understand reproduction and how living things have adapted over time

### Vocabulary

- **Inheritance:** Inheritance is passing on traits from parents to their children, such as the colour of your eyes or the shape of your nose.
- **Variation:** Variation means being different or having something unique.
- **Evolution:** Evolution is a very slow process whereby living things change bit by bit, generation by generation over many years.
- **Natural Selection:** Natural selection is where only the members of a species who have the features best suited for their habitat survive.
- **Adaptive Traits:** Adaptive traits are characteristics that help living things survive better in their environment.

Lesson 1 – Can I explain the scientific concept of inheritance?


Lesson 2 – Can I demonstrate understanding of the scientific meaning of adaptation?

Lesson 3 – Can I identify the key ideas of the theory of evolution?

Lesson 4 – Can I identify evidence for evolution from fossil records?


Lesson 5 – Can I understand how human beings have evolved?

Lesson 6 – Can I explain how adaptations can result in both advantages and disadvantages?





**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.

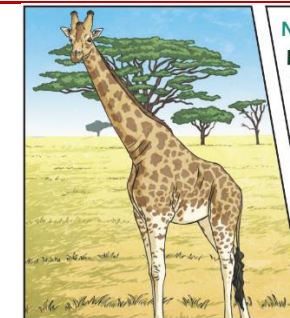
**Habitats**  
A good **habitat** should provide shelter, water, enough space and plenty of food.

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

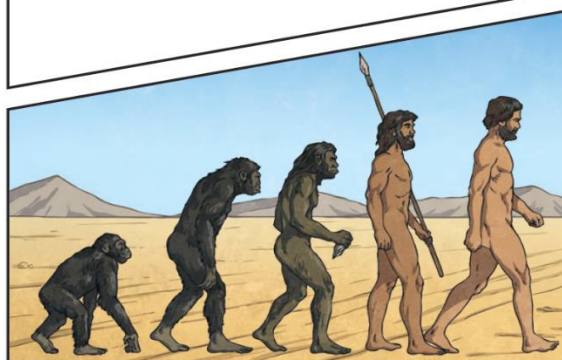



Living Things	Habitat	Adaptive Traits
polar bear	arctic	Its white fur enables it to camouflage in the snow.
camel	desert	It has wide feet to make it easier to walk in the sand.
cactus	desert	It stores water in its stem.
toucan	rainforest	Its narrow tongue allows it to eat small fruit and insects.



**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 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.

