Knowledge Organiser: Science

### Year: 6

### Unit: 1

## Unit title: Evolution and Inheritance

## Inheritance

Offspring (babies) receive some of the characteristics from their parents. All animals and most plants receive half of their traits from their father and half from their mother.

#### **Inherited traits**



#### **Adaptive/Environmental traits**



## Adaptation

Adaptations are characteristics that improve an organism's chance of survival. These are usually functional traits that have been maintained through evolution and natural selection and passed down through generations.



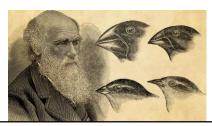
# **Natural Selection**

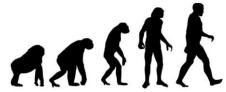


Fossils of giraffes from millions of years ago show that they used to have shorter necks. They have gradually evolved through natural selection to have longer necks so that they can reach the top leaves on taller trees.

### **Evolution**

Over very long time periods (usually tens, hundreds of thousands or millions of years) adaptations can make animals so different that they become separate species. By comparing the similarities and differences of various species including **fossils**, we can work out how one species evolved from another over millions of years.





	Vocabulary	
1	Offspring	The young animal or plant this is produced by the reproduction of that species.
2	Inheritance	This is when characteristics are passed onto offspring from their parents.
3	Variations	The differences between individuals within a species.
4	Characteristic	The distinguishing features or qualities that are specific to a species.
5	Adaptive Traits	Characteristics that are influenced by the environment.
6	Adaptation	A characteristic which changes to increase the living things chances of surviving and reproducing.
7	Environment	Contains many habitats and includes areas where there are living and non-living things.
8	Evolution	Adaptation over a long period of time.
9	Natural Selection	The process where organisms that are better adapted to their environment tend to survive and produce more offspring.
10	Fossil	The remains or imprint of a prehistoric plant or animal, embedded in rock and preserved.