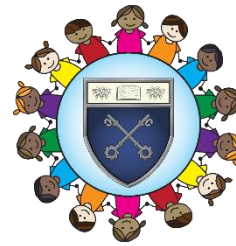


# Year 6 - Evolution and Inheritance



Key Vocabulary	
evolution	Gradual change in an organism's characteristics over many generations
inheritance	Passing on characteristics to offspring
organism	A living thing
characteristics	A feature or quality belonging to a person or animal
offspring	The young of an animal or the seedling of a plant
generation	all the people/animals born and living at the same time
breed	Produce offspring
variation	A change or a slight difference
genes	Part of a cell of a living thing which controls its physical appearance
adaptation	Changing to become better suited to their environment

## Key Learning

All living things have offspring of the same kind, as features in the offspring are inherited from the parents. Due to sexual reproduction, the offspring are not identical to their parents and vary from each other. Plants and animals have characteristics that make them suited (adapted) to their environment. If the environment changes rapidly, some variations of a species may not suit the new environment and will die. If the environment changes slowly, animals and plants with variations that are best suited survive in greater numbers to reproduce and pass their characteristics on to their young. Over time, these inherited characteristics become more dominant within the population. Over a very long period of time, these characteristics may be so different to how they were originally that a new species is created. This is evolution. Fossils give us evidence of what lived on the Earth millions of year ago and provide evidence to support the theory of evolution. More recently, scientists such as Darwin and Wallace observed how living things adapt to different environments to become distinct varieties with their own characteristics.

## Evolution

Evolution means change over time. It is the reason we have so many species on earth. It happens when there is competition to survive (natural selection) and through differences within a species caused by inheritance and mutations.

## Inheritance

Inheritance is when a characteristic is passed on to the next generation. Offspring are not identical to their parents and some characteristics are inherited (carried in offspring from parents) and other differences are new in the offspring - these are called mutations.

## Key Scientists - Charles Darwin

Charles Darwin was an English scientist best known for his theory of evolution. He was a geologist who went travelling in 1831 on the HMS Beagle. He saw many animals and plants and came up with the idea of natural selection (the strongest survive and evolve). His book 'Origin of the Species' was released in 1851 and was controversial because it went against the creation story in the Bible.



## Did you know?

The dodo was a flightless bird from Mauritius which failed to adapt to its new environment. Humans arrived, hunted it and introduced other animals and so it became extinct in 1681.



The spines of a cactus are leaves and are much better than flat leaves at preventing water being lost from the plant. The spines are also good protection from animals that might want to eat them.



A camel has humps of fat storage to use up for energy in the dry desert when there is a shortage of food.





