

Evolution – Year 6

What is evolution?

Evolution is the way that living things change over time. Do things evolve? We know that living things used to look a lot different to how they do now. We know this because fossils have been found that show creatures that look a lot different to how they do today. Fossils show us that living things have changed over time.

How do things evolve?

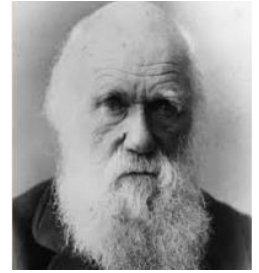
Charles Darwin observed that although individuals in a species shared similarities, they were not exact copies of each other. He noticed that there were small differences or variations between them. He also noticed that everything in the natural world was in competition. The winners were those that had characteristics that made them better adapted for survival. He noticed that living things were more likely to reproduce and pass on their useful characteristics to their offspring. Over time a species gradually changes. Given enough time these small changes add up to the extent a new species altogether can evolve.

Fossils

The only way information can be obtained about evolution and animals and plants that are now extinct, is to examine fossils. Fossils are the preserved remains or traces of ancient plants and animals. They develop over millions of years, as the soft tissues of a dead animal or plant are slowly replaced by minerals from underground water. These minerals gradually harden to stone and the mud and sand surrounding the body slowly turn to rock.

Charles Darwin

Charles Darwin (1809 – 1882) was an expert in natural history. He went on a famous sea voyage in 1831 on a ship called HMS Beagle and visited many places around the world, collecting animal and plant samples. The observations he made led him to his theory of evolution.



Variation

Living things produce offspring of the same kind. E.g. owls produce baby owls and humans produce baby humans ...BUT... normally offspring vary and are not identical to their parents. Natural variation like this can lead to offspring being more likely or less likely to survive in their environment. If the variant makes them more likely to survive, they are more likely to be alive to pass this on to their offspring. As a result, this variant is more likely to become more common in the species.



Key Vocabulary

Fossils - The remains of a once-living organism preserved as a rock
Variation - Natural differences between living things in a species
Reproduce - To produce again/give birth
Offspring - Children or young
Migration - Seasonal movement of animals from one location to another
Adaptation - A characteristic of a living thing that makes it suited to its environment
Evolution - The process by which living things gradually change over time
Species - A group of organisms that have common characteristics and can breed
Natural selection - The process where organisms that are most suited to their environment are more likely to reproduce, and in doing so, pass on these adaptations to the next generation
Inheritance - The process of passing on characteristics, such as eye colour, from parents to their offspring

Read more & research more:

[What is evolution? - BBC Bitesize](#)

