

Key Knowledge

Evolution and Inheritance

Do things evolve?	- We know that living things used to look a lot different to how they do now. - Fossils show us that living things have changed over time.
How do things evolve?	- A famous scientist, Charles Darwin observed that although individuals in a species shared similarities, they were not exact copies of each other - 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 which made them better adapted for survival. For example, they were stronger, faster, cleverer or more attractive than others in their species. These living things were more likely to reproduce and pass on their useful characteristics to their offspring. - Individuals that were poorly adapted were less likely to survive and their characteristics were not as likely to be inherited. - Over time, the characteristics that help survival, become more common and a species gradually changes. - Given enough time, these small changes can add up to the extent that a new species altogether can evolve.
What is variation?	- Living things produce offspring of the same kind. For example, 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 variant to their offspring. - As a result, this variant is more likely to become more common in this species.
What is adaptation?	Adaptation is when things evolve to overcome challenges in their environment. For example by adapting their behaviour. For example, Migration. Birds have adapted to move around the world to find weather and food sources to suit them. Birds that didn't do this may have run out of food and died.

Key Vocabulary

Spelling	Definition/sentence
Characteristic	A feature of an organism
Offspring	The children animals or young of living things.
Reproduction	To produce again/give birth.
Generation	People born or living at the same time.
Inherit	A characteristic that is passed genetically to offspring.
Breeding	Mating and production of offspring by animals.
Variation	Small differences.
Identical	Exactly alike.
Adaptation	A feature of a plant or animal that helps it survive in its habitat.
Environment	The surroundings in which a person, animal or plant lives.
Evolution	How living things change over time.
Habitat	Where a plant or animal lives.
Fossil	A fossil is the naturally preserved remains or traces of animals or plants that lived in the geologic past.
Migration	Seasonal movement of animals from one location to another.

Diagrams and Symbols



