

### Variation

All living things have their own characteristics. Characteristics are traits (features) that make living things different from one another. The differences between living things within the same species is called variation

### Inheritance

Offspring are the young created by living things.



Offspring inherit characteristics from their parent or parents.

The passing on of characteristics to offspring is called inheritance

### Fossils

Fossils are the impressions of once-living things from the past. They give scientists clues about how living things in the past might be linked to living things on Earth today.



Palaeontology is the study of the history of living things on Earth. Mary Anning was a palaeontologist who found fossils.

### Adaptations

Some adaptations (special characteristics) help the animal or plant to:

- survive the climate in its environment
- find food and water
- survive seasonal changes
- survive the threat of predators

### Natural selection - 'survival of the fittest'.

Some living things are better adapted to their environments than others

These living things survive and reproduce

They pass on the best characteristics to their offspring.

### Evolution

The theory of evolution describes how living things have developed from earlier forms over the history of the Earth. Evolution happens over a very long period of time. Charles Darwin and Alfred Wallace proposed the theory of evolution

### Extinction

Living things can become extinct if their environment changes. This means no members of a species are found alive anywhere in the world. Dodos are extinct birds

Endangered animals, like polar bears, are those at threat of becoming extinct. Changes to the environment can cause living things to become endangered or extinct if they do not have an adaptation to survive in their new environment. Human beings can create environmental changes that cause living things to become extinct, but they can also prevent their extinction.

Word	Definition
adaptation	A characteristic of a living thing that helps it survive in its environment.
camouflage	Colour that protects an animal from attack by making it difficult to see in the area around it.
characteristic	A feature or trait belonging to a living thing.
endangered	Endangered plants or animals are at threat of becoming extinct.
environment	A place where things live; it may contain different habitats.
evolution	Changes to the traits or characteristics of a species over time as a result of adaptations.
extinct	When a species has not been able to reproduce and so has died out.
fossil	The remains of a living thing embedded in rock.
habitat	The natural home of a living thing.
inheritance	Characteristics or traits passed from parents to offspring.
natural selection	The process in which only the living things in a species that are adapted well enough to their environment will survive and pass on their traits or characteristics.

Word	Definition
offspring	Young produced by living things.
organism	Organisms are living things, including plants, animals and microorganisms.
palaeontologist	A scientist who studies the history of life on Earth.
palaeontology	The study of the history of life on Earth.
predator	An animal that kills other animals (its prey).
species	A group of living things that have been classified together because of their shared basic characteristics.
survive	To remain alive.
theory	An explanation based on scientific research.
trait	A feature or characteristic belonging to a living thing.
variation	Differences between living things in the same species.