

What is the difference between living and surviving?



Progression in Skill:

Use and develop classification keys to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment.

Long-term Memory Knowledge:

Charles Darwin was an influential scientist of the 19th century who developed the concept of adaptation and evolution in living things. He recorded his observations from his travels in his book: The Origin of the Species. Over time, living things have evolved in order to adapt to their environment because those that are best adapted have survived long enough to reproduce, whilst those less well adapted are less likely to do so.

Fossils can be used to learn about living things from the past.

Living things produce offspring of the same kind, although these may vary and not be identical to the parents.

Carl Linnaeus developed a system of classification that is widely used today to sort and group living things according to their observable characteristics.

Key Vocabulary

adaptation	a characteristic of a living thing that makes it suited to its environment
artificial selection	a process where humans select which species to breed based upon traits
biodiversity	a wide variety of plant and animal; species living in their natural environment
DNA	a unique code in organism's cells that contains the instructions for how that organism will look and function
evolution	The process by which living things gradually change over time
extinct	an animal or plant species that has died out and is no longer present in the world population, such as dinosaurs

inheritance	the process of passing on characteristics, such as eye colour, from parents to their offspring
naturalist	a person who studies the natural world
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 adaptation to their next generation
survival of the fittest	where and plants which are best suited to changes in their environment have an advantage in surviving over those which are less well suited
variation	change or slight difference in something

National Curriculum Links:

Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.

Give reasons for classifying plants and animals based on specific characteristics.

Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.

Recognise that living things produce offspring of the same kind but normally offspring vary and are not identical to their parents.

Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Essential Prior Learning:

Living things can be grouped in a variety of ways. Living things live in habitats to which they are suited. Environments can change and this can have an effect on living things.

Children should be able to explore and use classification keys and group living things.

Progression in Resources:

- Classification keys
- Information texts

Relevance

Now	Children develop an understanding of how science helps us to understand the world; they recognise why some species are now extinct and why some have adapted ('changed') over time; they can see that characteristics are passed from parent to offspring and can see this in themselves.
Future	Children recognise the impact humans have on changing environments and how this can affect other living things; they make lifestyle choices that minimise the impact on other living things.
Aspiration	Children pursue a career in conservation – or volunteer for such an organisation.