Life on Earth

What we learnt in Year 2:

- to identify that most things live in habitats to which they are suited;
- to identify and name a variety of plants and animals in their habitats;
- that animals, including humans have offspring which grow into adults.

What we learnt in Year 3:

- to describe in simple terms how fossils are formed when things that have lived are trapped within rock.

What we learnt in Year 4:

- that living things can be grouped in a variety of ways;
- to use classification keys to help group, identify and name a variety of living things;
- that environments can sometimes change and that this can sometimes pose dangers to living things.

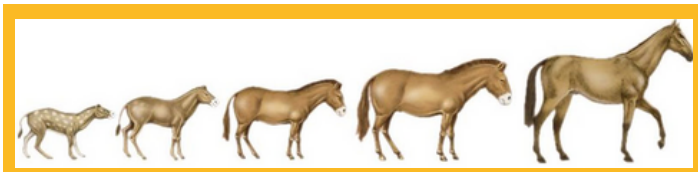
vocabulary	
fossil	The remains or imprint of a prehistoric plant or animal, embedded in rock and preserved.
offspring	The young animal or plant that is produced by the reproduction of that species.
inheritance	When characteristics are passed on to offspring from their parents.
variations	The differences between individuals within a species.
adaption	A trait (or characteristic) changing to increase a living thing's chances of surviving and reproducing.
evolution	Adaption over a very long time.
natural selection	The process where organisms that are better adapted to their environment tend to survive and produce more offspring.

How do we know about living things that have lived in the past?

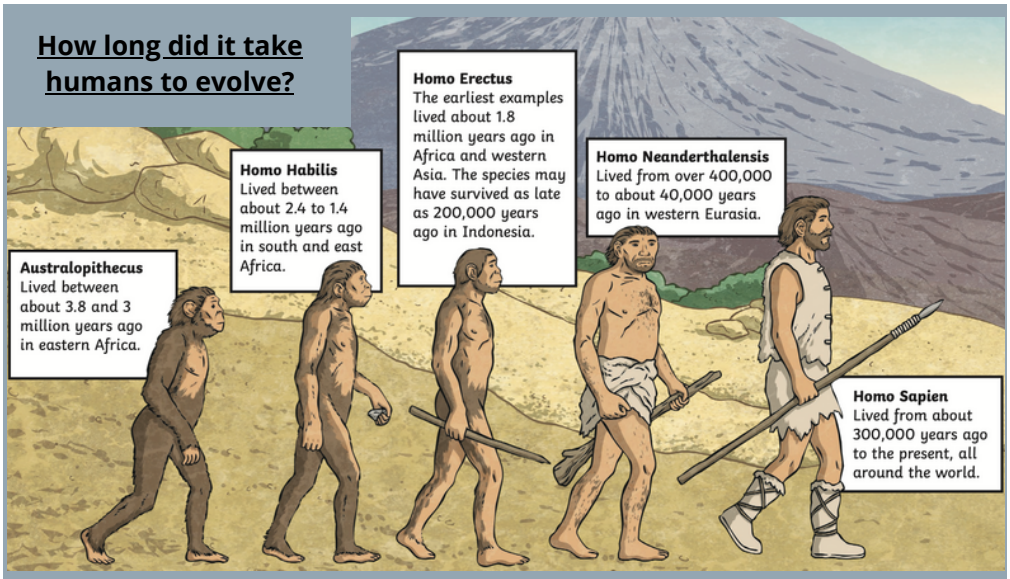
Fossils are the remains or imprints of prehistoric plants or animals, embedded in rock and preserved. They are like a postcard from the past, showing what life was around millions of years ago.

How are animals adapted to suit their environment?

During his visit to the Galapagos Islands, Charles Darwin discovered finches with many different beak shapes. Each of the different beaks was suited to eat a particular food found where that finch lived. Each species of finch was adapted to suit their particular environment and the food that they could find there.



How long did it take humans to evolve?



Modern humans (homo sapiens) evolved 130,000 years ago in Africa. They left Africa around 35,000 years ago and spread around the globe.

How has adaption led to the evolution of the species?

Evolution happens through inheritance - meaning that tiny changes only happen as traits pass to the next generation.

If these traits increase a living thing's chance of surviving, it will be more likely to reproduce. The offspring that inherit this useful trait will also be more likely to survive (and reproduce). This process of natural selection gradually results in organisms that are better adapted to their environment.

When adaption continues over many generations, this is called evolution.

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vocabulary	
biome	A large naturally occurring community of flora and fauna, occupying a major habitat.
flora	The plants of a particular region or habitat.
fauna	The animals of a particular region or habitat.
climate zone	Climate zones are areas with similar temperatures, precipitation and weather.
Linnaean system	A system used to classify living things.
microorganism	A living organism that is too small to be seen with the naked eye and can only be viewed using a microscope.

How have flora and fauna adapted to their biomes?

A biome is a natural area of plants and animals. The world is divided into many different biomes and they all vary depending on their climate. Some examples of biomes are:

The flora (plants) and fauna (animals) within a biome are all adapted to the climate, conditions and available food.
For example:

Walrus's have a thick layer of fat to protect them from getting too cold.

A cactus is a desert plant; it stores water in its stem.

These adaptations, each of which have occurred over time by the process of evolution, make it easier for each plant or animal to survive in its biome.

Do all countries have the same physical and geographic features?

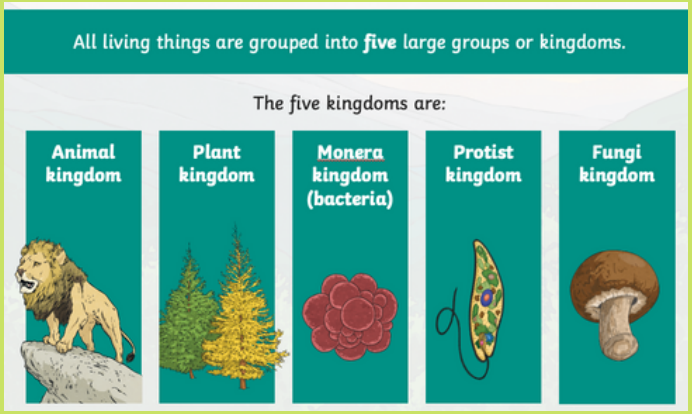
Every country has its own range of physical and geographical features, for example:

The height of the land and the climate can also vary. All of these differences affect the way people use the land, and the range of flora and fauna that can be found.

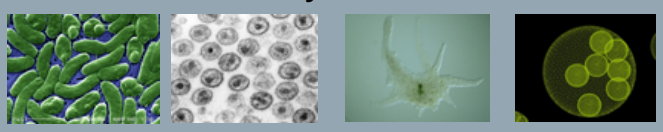
Do animals classified together have similar characteristics?

Kingdom
↓
Phylum
↓
Class
↓
Order
↓
Family
↓
Genus
↓
Species

The Linnaean system (named after Carl Linnaeus) is used to classify living things. Organisms can be classified by following the levels in this system. The number of living things in each group gets smaller (and they share more characteristics), until there is just one type of animal in the species group.



What do microorganisms have in common and how are they classified?



Microorganisms are living organisms which are too small to be seen with the naked eye and can only be viewed using a microscope. They typically consist of just one cell.

Microorganisms can be classified as plants, animals, bacteria, viruses or fungi. Some microoganisms can be useful, but others can make us ill.