

Living things and their Habitats

The Big Questions

How would we identify each other if we all looked the same?

What if organisms from Earth travelled to Mars?

What would happen if there was another Ice Age?

How else could we classify living things?

Core Knowledge

Recap: In Year 4, you studied **classification**—the act or process of grouping living things according to their type such as plants or animals, vertebrates or invertebrates and **variation**— the differences between individuals within a species, which can be caused by inherited or environmental factors (things passed down from their parents or related to the conditions they live in)

- In 1735, Swedish Scientist Carl Linnaeus first published a system for classifying all living things. An adapted version of this system is still used today: The Linnaeus System.
- Scientists study the **characteristics** of an organism in order to classify it.
- **Taxonomy** is the branch of science that gives names to all living organisms and taxonomists are scientists who classify things into groups based on similarities.
- Taxonomists often use scientific keys which are sets of questions with yes or no answers to help them classify living things.
- Micro-organisms (such as viruses, bacteria, moulds and yeast) can also be classified.

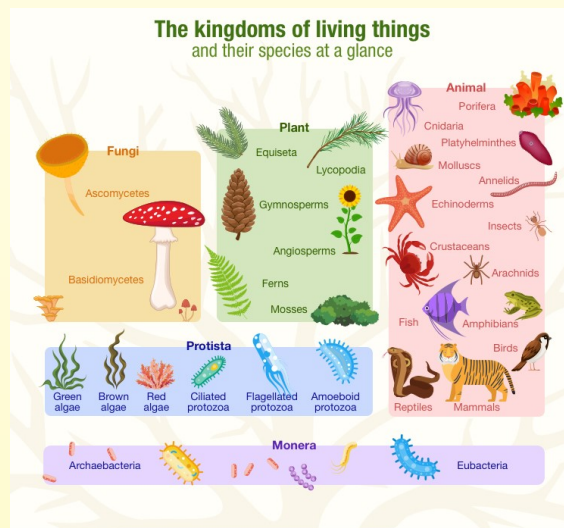


<https://www.sciencephoto.com/media/646795/view/carl-linnaeus-swedish-botanist>

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Core Knowledge

- Broad groupings, such as plants, animals and micro-organisms can be sub-divided, to identify specific examples
- Living Things are first divided into Kingdoms—the animal kingdom and plant kingdom are the two main ones we can observe. Each group is then divided further into these groupings, which become more specific as they go along: Phylum, Class, Order, Family, Genus, Species



<https://www.iberdrola.com/sustainability/biology-kingdoms-living-things-classification>

Key vocabulary

a key— a series of questions about the characteristics of living things. A key is used to identify a living thing or decide which group it belongs to by answering 'yes' or 'no' questions

characteristics—Special qualities or appearances that make an individual or group of things different to others.

taxonomy—(which literally means “arrangement law”) is the science of classifying organisms

As scientists we will

- 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
- Observe living things in the local environment and use classification keys to identify them

