The Journey of Life and Death | Autumn 1

algae	A single or multi-cellular organism that has no roots, stems or leaves and is often found in water.
bacteria	Tiny little organisms that are everywhere around us.
classification	The arrangement of organisms into orderly groups based on their similarities and presumed evolutionary relationships.
fungi	A classification or group of living organisms. This means they are not animals, plants, or bacteria.
invertebrate	An invertebrate animal does not have a backbone and 97% of creatures belong to this group.
micro-organism	An organism which is microscopic, making it too small to be seen by the human eye.
organism	An individual animal, plant or single-celled life form.
species	A group of closely related organisms that are very similar to each other and are usually capable of producing offspring.
taxonomy	The science of naming, identifying and classifying organisms.
vertebrate	A vertebrate animal is one that has a backbone.
virus	A small infectious agent that replicates only inside the living cells of an organism.

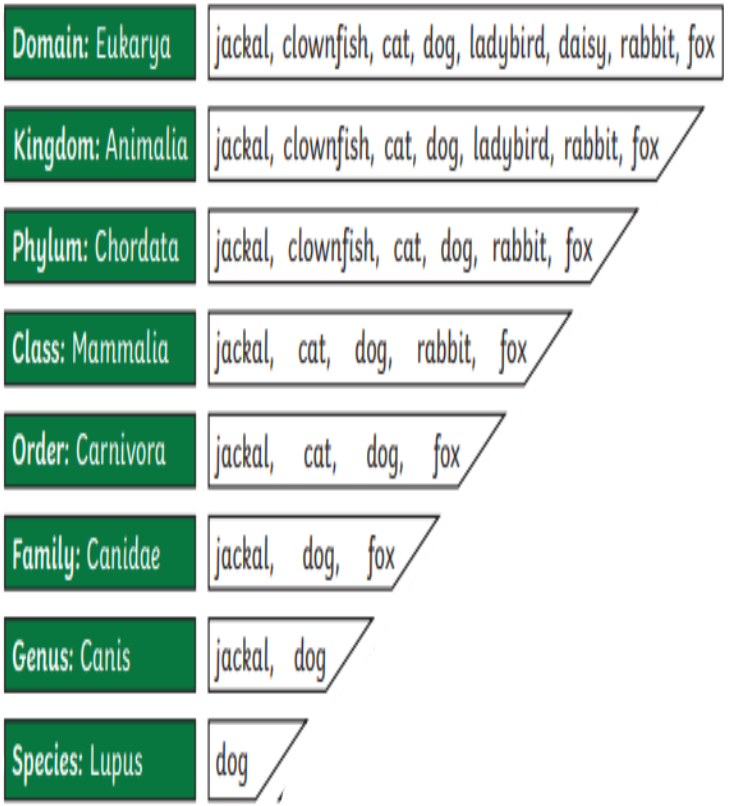
Classification

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. Living things can be classified by these eight levels. The number of living things in each level gets smaller until the one animal is left in its species

The eight levels are:

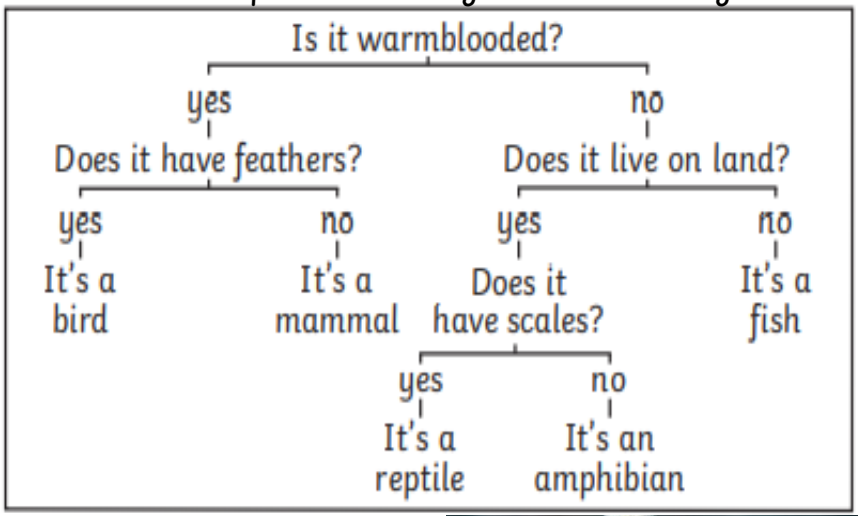
- Domain
- Kingdom
- Phylum
- Class
- Order
- Family
- Genus
- Species

This is how we would classify a dog



Scientists, called Taxonomists, sort and group living things according to their similarities and differences. They use a classification key to help them to sort living things.

Example Classification Key



Helpful Microbes	Harmful Microbes
Bacteria – cheese	Bacteria – salmonella is a bacterium that can lead to food poisoning
Yeast – wine	Virus – chicken pox and flu are examples of viral diseases
Bacteria – yoghurt	Fungi – athlete's foot
Yeast – bread dough	Bacteria – plaque
Penicillium fungi - antibiotics	Fungi - mould

Microorganism

Microorganisms are viruses, bacteria, moulds and yeast. Some animals (dust mites) and plants (phytoplankton) are also microorganisms. Microorganisms are very tiny living things that can only be seen using a microscope. They can be found in and on our bodies, in the air, in water and on objects around us.

Task 1 Research and write a biography about Carl Linnaeus, the person who first published a system for classifying living things.	**Task 2** Create a 3D model of a bacteria using scrap paper/cardboard from around your home.	**Task 3** Would you rather be a helpful microbe or a harmful microbe? Explain why using your scientific knowledge.
Task 4 Look for an animal/ insect in your local area. Take a photograph and then complete a classification key.	**Task 5** Research images of a bacteria or virus and then draw your own, be as creative as you can.	**Task 6** Research an animal and create the 8 step Linnaeus System classification for that animal.