

Year 6

Science – Living Things and Their Environments

Key Vocabulary	
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.
characteristic	A feature or quality belonging to a person or animal.
classification	The arrangement of organisms into orderly groups based on their similarities and presumed evolutionary relationships.
environment	The natural surroundings in which you live or exist, in relation to either physical characteristics or weather conditions
habitat	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.

Are you a Milecastle Megamind?

Why is classification important?

Choose a living thing. Use the Linnaeus system to classify it.

Can you design your own classification system for living things?

Key Learning

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.

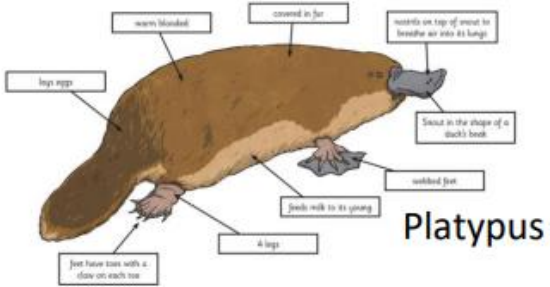
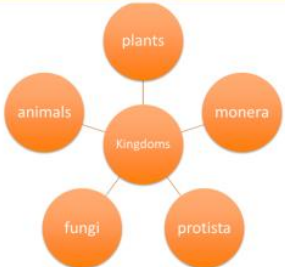
Living things can be classified by these eight levels. The number of living things in each level gets smaller until the one animal is left in its species level.

Each group allows scientists to observe and understand the characteristics of living things more clearly. They group similar things together then split the groups again and again based on their differences.

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.

When a new species of animal is discovered, taxonomists observe its characteristics to decide how to classify it. However, some animals are so unusual that taxonomists struggle to classify them. The platypus was discovered in 1797, and scientists around the world joined the attempt to classify this unusual animal. It seemed to have characteristics from several different types of animals!

The first big division of living things is to put them into one of the five kingdoms.



Kingdom Monera (bacteria)

- Single-celled organisms
- Can cause illness
- Can also be helpful - bacteria are used to make cheese and yoghurt!

There are 40 million bacterial cells in just 1 gram of soil!



E. coli bacteria



The Seven Levels of Linnaeus' System



