



Classification

Scientists believe that there could be as many as 10 million different species on Earth. It would be very hard to study the lives and behaviours of all these living things without grouping them together somehow.

Scientists sort and group living things according to their similarities and differences. This is called classification. Scientists who classify living things are called taxonomists.

Grouping Living Things

Animals can be put into one of two groups:

Vertebrates

Invertebrates

The two groups can be split into further, smaller groups.

Vertebrates can be split into:

mammals, birds, fish, reptiles and amphibians.

Invertebrates can be split into:

insects, arachnids, annelids, molluscs, crustaceans and echinoderms

Carl Linnaeus

Carl Linnaeus was a Swedish scientist who believed it was very important to have a standard system of classification. At the time he was alive, in the 1700s, there was no agreed standard method.

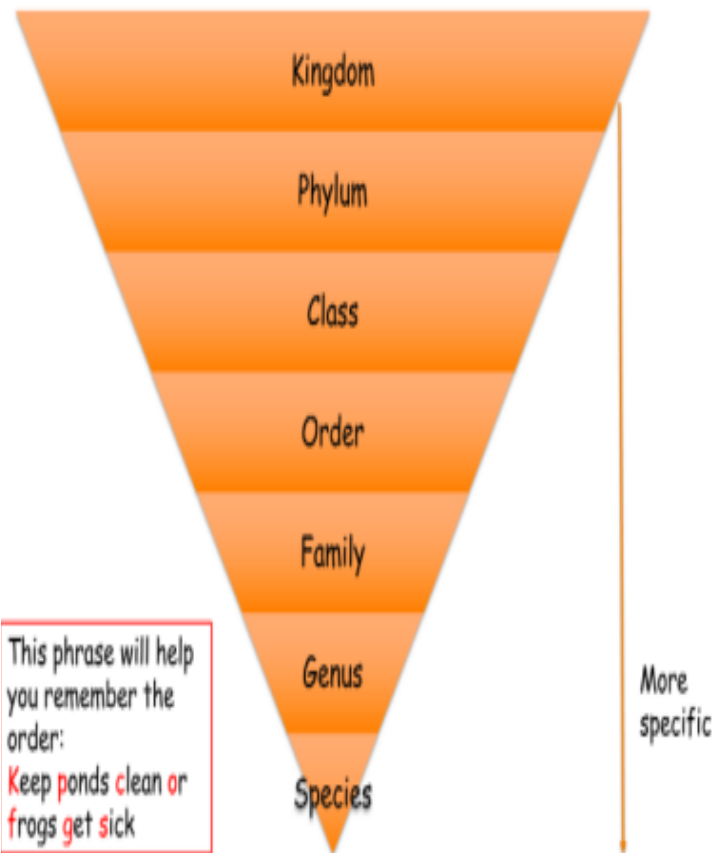


In 1735, he published his first edition of 'Systema Naturae', which described his system for classifying living things. Linnaeus' original system of classification classified everything in nature into a hierarchy.

Key Vocab






1	Taxonomy	The part of science focused on classification
2	Classification	Grouping something using its features
3	Distinguish	Recognise a difference
4	Chlorophyll	The green colouring matter found mainly in the chloroplasts of plants that absorbs energy from sunlight to produce carbohydrates from carbon dioxide and water during photosynthesis.
5	Species	a group of animals, plants or other living things that all share common characteristics.

The Seven Levels of Linnaeus' System

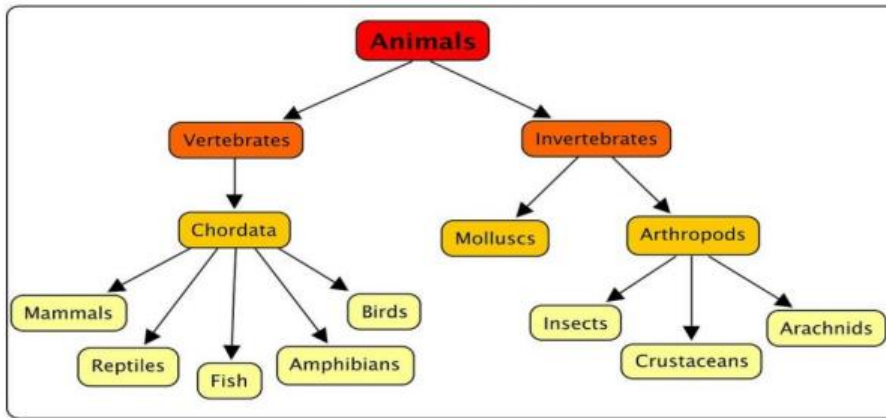


Plant Kingdom

Plants can be classified into 5 main groups and then sub-divided further.

 <p>Ferns</p>	<p>A non-flowering plant with seeds or spores.</p>
 <p>Conifers</p>	<p>A non-flowering plant that are evergreen.</p>
 <p>Flowering</p>	<p>A plant that produces flowers.</p>
 <p>Algae</p>	<p>A non-flowering plant in water.</p>
 <p>Mosses and liverworts</p>	<p>Small flowerless plant, grown in damp habitats.</p>

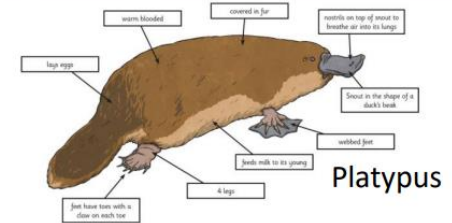
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Curious Creatures

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!



Science Vocabulary Dozen

Micro-organisms	A living thing too small to be seen by the human eye.	Annelids	An invertebrate that is a segmented worm.
Invertebrate	Animals without a backbone.	Arachnid	Small invertebrate usually with 8 legs.
Vertebrate	Animals with a backbone or spinal column.	Species	A group of living things that are closely related.
Arthropod	An invertebrate with an exoskeleton and a segmented body.	Bacteria	A single celled micro-organism that can live anywhere.
Insect	A small arthropod animal that has six legs and three body parts.	Deciduous	Plants that shed their leaves annually.
Molluscs	Invertebrate with an unsegmented body that can have a hard shell.	Coniferous	Evergreen plants usually with needle-shaped or scale-like leaves, pines or cones.

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!

