



Topic: Living Things

Year: 6

Strand: Classification

Significant scientists

Carl Linnaeus
(1707-1778)



Carl Linnaeus was a Swedish scientist who developed the modern system of classifying and naming organisms. Before this the names of living things were often very long. He gave them a two-part name.

Chris Nelson



Chris Nelson is a horticulturist and a director of Growing Underground which uses hydroponic techniques to grow pesticide-free crops in a former London underground air-raid shelter.

Retrieval Questions

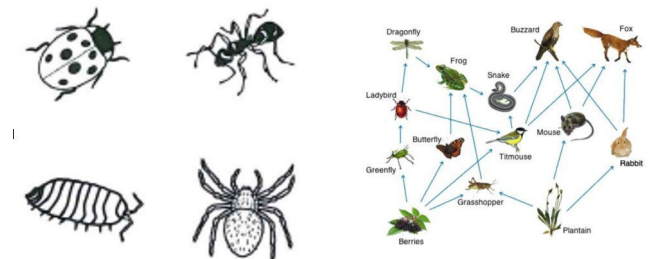
- 1) What is classification?
- 2) What is identification?
- 3) Name three kingdoms of living things.
- 4) Name three classes of plants.
- 5) Name five classes of animal.
- 6) Who was Aristotle?
- 7) Who was Carl Linnaeus?
- 8) How was Linnaeus's system of classification better than Aristotle's?
- 9) What is Linnaeus best known for?
- 10) What is the difference between a vertebrate and an invertebrate?

Key knowledge

We need to understand that classification (which groups objects based on similarities) is different to identification (which focusses on the differences between objects in order to give the object a specific name). These two concepts are linked but not interchangeable. There are five Kingdoms of Living Things: Animalia; plantae; fungi; protista and monera, which represent all living things. These kingdoms are then subdivided by observable characteristics to produce related sets of living things. The plant kingdom is subdivided into flowering plants, conifers, ferns, mosses and algae and the animal kingdom is subdivided into vertebrates (animals with a backbone); fish; mammals; birds; reptiles; amphibians; invertebrates (animals without a backbone); molluscs; annelids; arachnids; insects and arthropods. Aristotle (a philosopher and scientist) started classifying living things into two groups and this system was later improved by Carl Linnaeus (a Swedish naturalist and explorer) into a system that can classify all living things. Linnaeus's system is still in use today, though has been improved as our understanding changes and is why we give two part scientific names to living things (known as binomial nomenclature).

Key Vocabulary

Classification	The arrangement of living things into groups according to observed similarities
Characteristic	A distinguishing feature of a living thing that helps with identification
Micro-organism	A living thing that can only be seen through a microscope
Plant	A living thing that absorbs water through its roots and makes its own food by photosynthesis
Animal	A living things that feeds and has sense organs
Vertebrates	A group of animals with a backbone
Invertebrate	A group of animals without a backbone
Fish	A cold blooded animal that lives in water
Amphibian	A cold blooded animal that can live on land or in water
Reptile	An air breathing , cold blooded vertebrate with scales that lays eggs
Bird	A warm blooded, feathered, winged vertebrate that lays eggs
Mammal	A warm blooded vertebrate that nourishes its young with milk and is covered in body hair
Bacteria	A microscopic, single celled living organism
Fungi	An organism that gets its food from decaying material (rather than making its own food)
Virus	Not considered a living thing; a microscopic agent that can only exist within a host cell and is unable to reproduce by itself



Useful Websites

- <https://www.bbc.co.uk/bitesize/topics/z6wwxnb>
- <https://www.bbc.co.uk/teach/class-clips-video/science-ks2-the-work-of-carl-linnaeus/zhnjf4j>
- <https://www.bbc.co.uk/bitesize/topics/z2ddmp3/articles/zccm3k7>
- <https://www.bbc.co.uk/teach/class-clips-video/science-ks2--ks3-classification-of-organisms/zh7g92p>