

Year 6 Knowledge Organiser Science – Classification

Key vocabulary

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|-----------------------|---|------------------------|---|
| classification | A system used to group animals and plants and allow them to be identified and compared. The names are given in Latin and are understood all over the world. | characteristics | Special qualities or appearances that make an individual or group of things different to others. |
| organism | Anything that is alive. | taxonomist | A scientist who classifies different living things into categories. |
| vertebrate | An animal distinguished by a backbone or spinal column. | microorganisms | A very tiny living thing that can only be seen through a microscope. They can be found in and on our bodies, in the air, in water and on objects around us. |
| invertebrate | An animal that does not have a backbone or spinal column, they have their skeleton outside their body (an exoskeleton). | bacteria | A single-celled microorganism. Some have great benefits, but some can be harmful. |

The Classification system

Domain

Kingdom

Phylum

Class

Order

Family

Genus

Species

Domain: There are three domains – plants and animals belong to the **eukaryote** domain.

Kingdom: The six kingdoms include animal, plant, fungi and bacteria.

Phylum: There are more than 30 phyla in the animal kingdom. **Phylum Chordata** includes all vertebrates.

Class: Each phyla is divided into classes. Classes in Phylum Chordata include mammals, fish and birds.

Order: A smaller group within class.

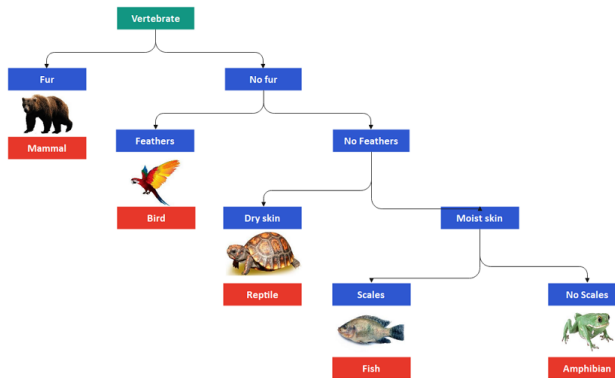
Family: A smaller group within order.

Genus: Includes species that are very closely related and share unique body structures.

Species: A group of animals that can reproduce to produce fertile offspring.

Classification key

A series of questions that determine an organism's physical characteristics. It is structured as a flow chart of **yes** and **no** questions. It is used to categorise a selection of plants or animals **or** to identify a plant or animal.



Key people

Carl Linnaeus
1707 - 1778

A Swedish scientist who invented the classification system in 1735.

Animal Classes

Phylum Chordata – vertebrates:

Mammal: warm-blooded, has fur, gives birth to live young and feeds babies with milk.

Birds: warm-blooded, feathers, beaks (no teeth) and lays eggs.

Reptiles: cold-blooded, dry, scaly skin and lays eggs.

Amphibians: cold-blooded, live in water and on land and lays eggs.

Fish: cold-blooded, breathe through gills under water and lays eggs.

Phylum Arthropoda– jointed legs and exoskeleton

Insects: six jointed legs, pair of antenna, three body parts and lays eggs.

Arachnid (spiders): eight jointed legs, two body parts, produces silk and lay eggs.

