



Vertebrates

Vertebrates are organisms which have an internal backbone surrounded by bone, also called vertebrae.

They have a hard <u>skeleton</u> made of bone, that supports the body's tissue and anchor muscle. Vertebrates can be separated into five groups:



Mammals Fish Reptiles Birds Amphibians

Scientist Focus

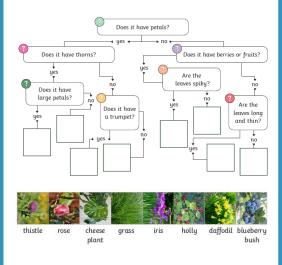
In 1735, Swedish Scientist **Carl Linnaeus** first published a system for classifying all living things. An adapted version of this system is still used today: **The Linnaeus System**.

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



Classification Key

You can use classification keys to help group, identify and name a variety of living things. Here is an example of a plant classification key:



Key Vocabulary

Mammals: Mammals are warm-blooded and usually have hair or fur on their bodies. They feed their babies with milk. Fish: Fish live and lay their eggs in water. They have fins instead of legs and gills instead of lungs.

Reptiles: Reptiles live in water and on land. They have scales and are coldblooded. They lay their eggs on land.

Birds: Birds are warm-blooded and have beaks, feathers, wings and two legs. They lay their eggs on land.

Amphibians – Amphibians are cold-blooded. They live on land and water. They have smooth skin and lay their eggs in water.

Insects: They have an exoskeleton covering their body.

Annelids: They have bodies divided into segments.

Crustaceans: They have a hard, external shell which protects their body. **Molluscs**: Most have a soft, skin-like organ covered with a hard, outside shell. **Arachnids**: They have a hard exoskeleton and jointed legs for walking. **Echinoderms**: They have arms or spines that radiate from the centre of their body.

Invertebrates

Invertebrates do not have a backbone, or a skeleton made of bones. Many have a hard shell outside their bodies to protect them. Others have soft, flexible bodies.

More than 80% of living things on the planet, and 98% of animals, are invertebrates.

