

Plant Kingdom

Over 275,000 species

All plants are included in one Kingdom (Plantae) which is then broken down into smaller and smaller divisions based on several characteristics.



Living Things and Their Habitats

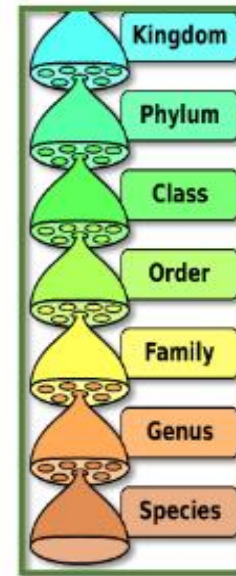
The Linnaean Classification System

Scientists believe that there could be as many as 10 million different species on Earth! Scientists sort and group living things according to their similarities and differences.

Carolus Linnaeus is the father of taxonomy, which is the system of classifying and naming organisms.



One of his contributions was the development of a hierarchical system of classification of nature. This system includes eight taxa: domain, kingdom, phylum, class, order, family, genus, and species.



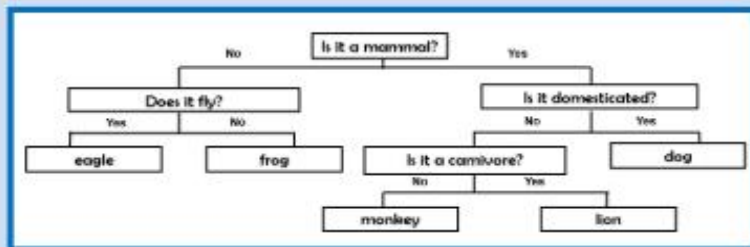
Key Vocabulary

Classification	The arrangement of organisms into orderly groups based on their similarities and presumed evolutionary relationships.
Taxonomy	The science of naming, identifying and classifying organisms.
Species	A group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding.
Microorganism	An organism that is so small that it is microscopic (invisible to the naked eye).
Vertebrates/Invertebrates	Invertebrates do not have a backbone. 97% of creatures belong to this group. Vertebrates like humans and birds do have a backbone.

Classification Keys

A key is a set of questions about the characteristics of living things.

You can use a key to identify a living thing or decide which group it belongs to by answering the questions.



Microorganisms

- Are invisible to the naked eye, you need a powerful microscope to see them.
- Are everywhere around us, inside us, on us, in our food, in our homes, in the air we breathe and the water we wash in.
- Are mostly useful, but some are harmful.
- Have been around for 3.8 billion years.
- The study of microorganisms is called microbiology.
- Are vital for life on Earth. They generate oxygen, are part of the carbon and nitrogen cycles, and can survive the harshest conditions.



CLASSIFICATION OF ANIMALS

This is the grouping together of animals with similar characteristics. Animals can be classed as either vertebrates or invertebrates.

ANIMALS

VERTEBRATES

These are animals that have a backbone.



Reptiles

Have dry scaly skin.
Lay eggs on dry land.
Are cold blooded.
(Snake, Crocodile)



Fish

Have scales on their bodies.
Have gills for breathing.
Are cold blooded.
(Shark, Tuna)



Amphibians

Have moist slimy skin.
Lay eggs in water.
Are cold blooded.
(Frog, Newt)



Birds

Have feathers and wings.
Have beaks and lay eggs.
Are warm blooded.
(Wren, Swan)



Mammals

Have fur or hair.
Feed young on milk.
Are warm blooded.
(Cow, Human)

INVERTEBRATES

These are animals that do not have a backbone.



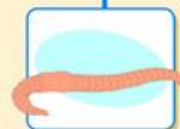
Protozoa

Single cell organisms
all microscopic.



Flatworms

Simple and soft bodied.
(Tape worm, Flukes)



Annelid Worms

Segmented bodies.
(Earthworm, Leech)



Echinoderms

Spiny sea creatures.
(Starfish, Sea urchin)



Coelenterates

Soft bodies, stinging cells.
(Jellyfish, Sea anemone)

Arthropods

Hard external skeleton
and jointed limbs.



Molluscs

Soft bodied, most have shells.
(Snails, Limpet)



Arachnids

Eight legs, two body
parts, no antennae.
(Spider, Scorpion)



Crustaceans

Mostly sea creatures.
Many legs and two
sets of antennae.
(Crab, Lobster)



Insects

Wings, six legs, three
body parts, one pair
of antennae.
(Bee, Ladybird)



Myriapods

Many legs and
body segments.
(Centipede, Millipede)