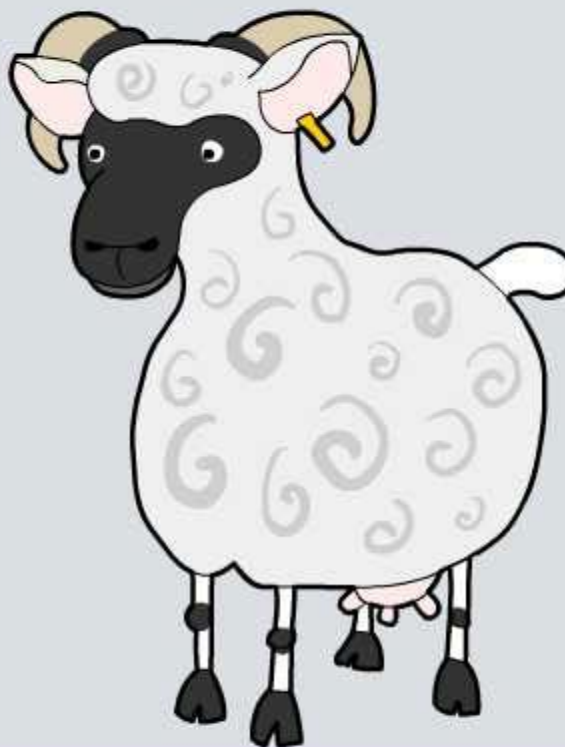


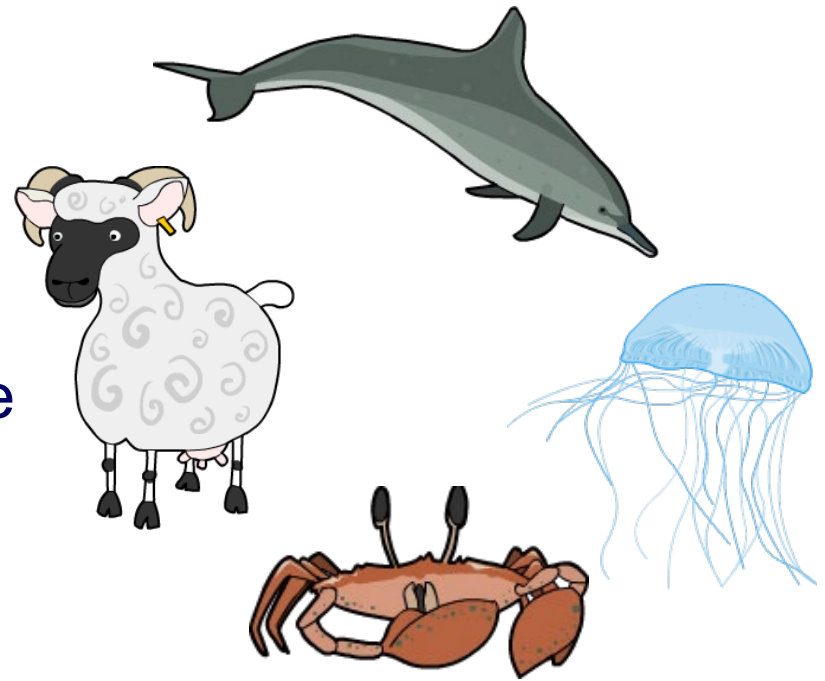
# Classifying Organisms



# Classifying different types of organisms

A huge variety of organisms live on our planet. Scientists have categorized organisms to make them easier to identify. This is called **classification**.

Organisms can be classified into different **species**. A species contains individuals with the same physical characteristics and common ancestors.



So far, scientists have identified around 290,000 species of plants, 1,250,000 species of animals and 5 million species of bacteria living on our planet.

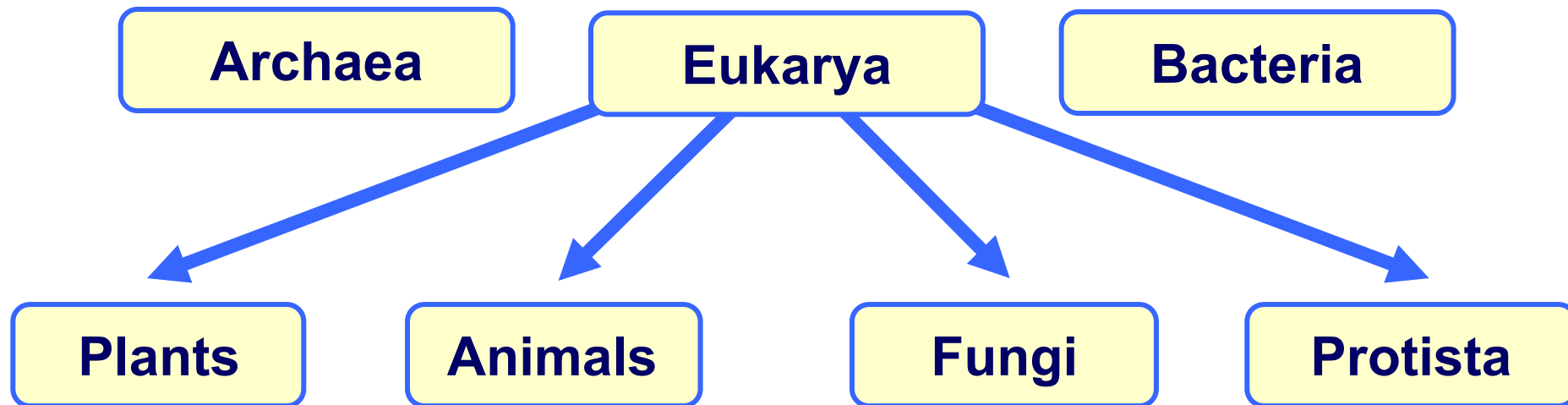


# The classification system

The classification system begins with very big groups that include lots of organisms. Each group is then divided into smaller groups made up of fewer organisms.

The biggest groups are called **domains**. There are three domains: **Archaea**, **Eukarya** and **Bacteria**.

The Eukarya domain is divided into four different **kingdoms**.



How is the Eukarya domain classified into four kingdoms?

Eukarya



reveal all



# Which kingdom?

Match the organism to the kingdom

animal

kangaroo

plant

amoeba

fungi

moss

protista

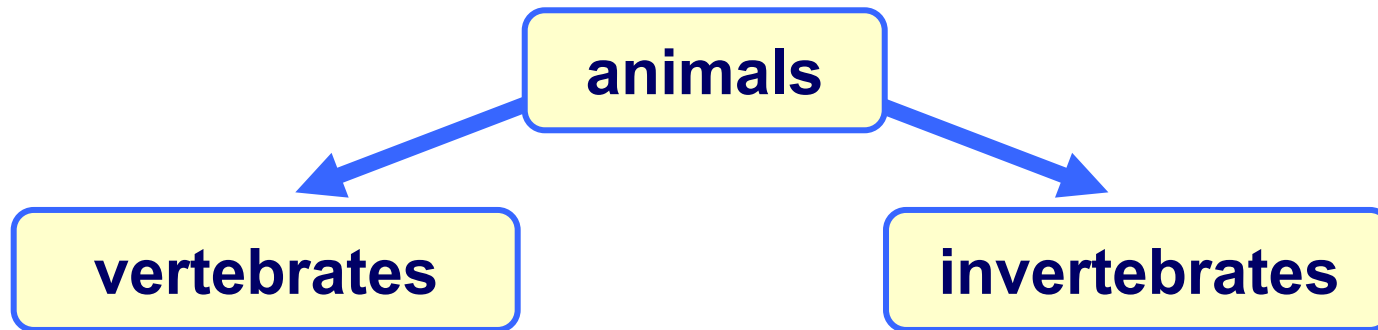
bread mold



solve



Animals can be divided into two groups.



**Vertebrates** have a backbone. They have a firm body because of the muscles that connect to their skeleton.

**Invertebrates** do not have a backbone. They have soft inner bodies that are held in shape either by a flexible covering of outer cells or by a hard covering called an exoskeleton.

How are animals classified?

animals



reveal all



What are the groups of vertebrates?

vertebrates





Mammals are classified into three subgroups:

- **marsupials** – They give birth to tiny underdeveloped young that develop in a pouch outside the mother's body, e.g. kangaroo.
- **monotremes** – They lay eggs but suckle their young, e.g. platypus.
- **placentals** – The young are attached to a placenta inside the womb. Newborns are already developed, e.g. bear.



What type of mammal are humans?



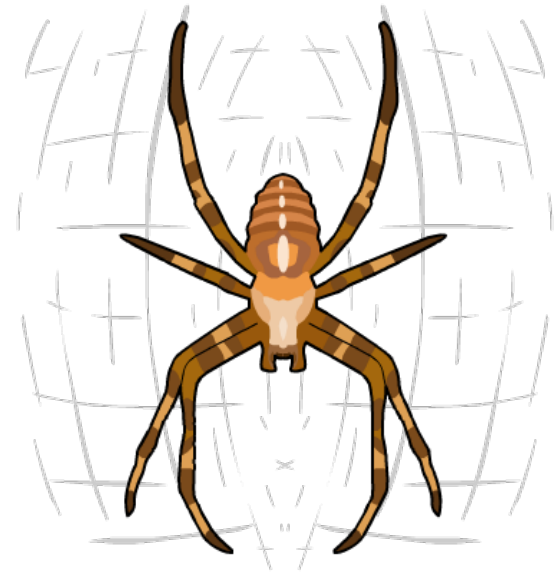
What are the groups of invertebrates?

invertebrates



Arthropods are divided into four subgroups:

- **crustacea** – They have gills, more than six legs and two pairs of antennae, e.g. crab, barnacle, lobster, shrimp.
- **insects** – They have six legs, and many have two pairs of wings, e.g. dragonfly, moth, ladybug, wasp.
- **arachnids** – They have eight legs, no wings and their bodies are in two segments, e.g. spider, mite.
- **myriapods** – They have many feet and long bodies of many segments, e.g. millipedes, centipedes.



# Which type of invertebrate?

Which type of invertebrate are these animals?

aphid

crayfish

sea anemone

scallop

scorpion

tapeworm

coelenterate

flatworm

arachnid

mollusc

insect

crustacean



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# Classifying plants

Plants can be classified according to the structure of the vascular tissue ('veins') in their leaves.



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**Monocotyledons** are plants that have leaves with parallel veins. Maize plants are monocotyledons.



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**Dicotyledons** are plants that have wide leaves with branched veins. Horse chestnut trees are dicotyledons.

Plants can also be classified according to whether they reproduce via seeds (like flowering plants) or spores (like mosses and liverworts).





How are plants classified?

plants



reveal all

