

## Key knowledge

Organisms are classified into five kingdoms (large groups).

The two main ones are:

**Animal Kingdom** - Organisms who hunt or seek out food.

**Plant Kingdom** - Organisms that create their own food using photosynthesis.

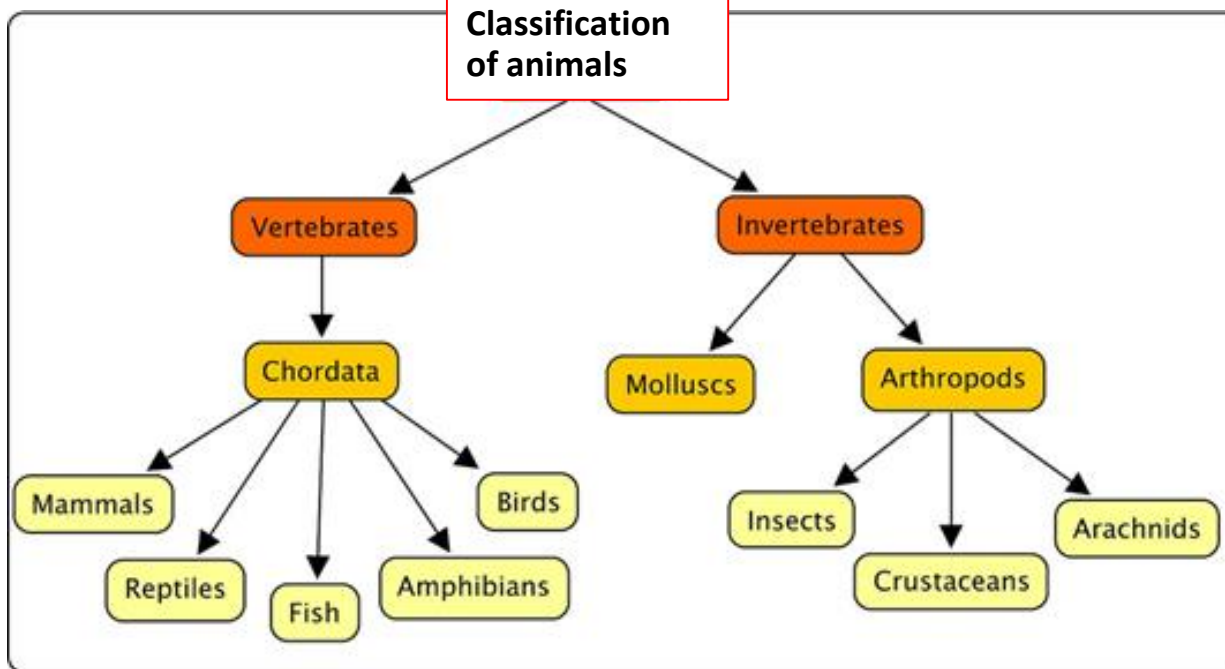
**Other living things** such as fungi and microorganisms are organised into other kingdoms.



# Year six science Classifying plants and animals

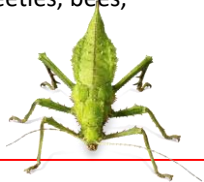


## Classification of animals



### insects

A small animal that has six legs, 3 body segments and generally one or two pairs of wings eg butterflies, beetles, bees, moths, flies



### arachnids

A small animal that has eight legs and a body formed from two segments eg spiders



### crustaceans

Mostly live in water with a hard shell and a segmented body eg prawns, lobster



**Al-Jahiz** was a Muslim pioneer born in 776AD. He started by selling fish and had a very curious mind. He went on to work on animal classification, food chains and evolution and is often thought as the father of the theory of evolution.



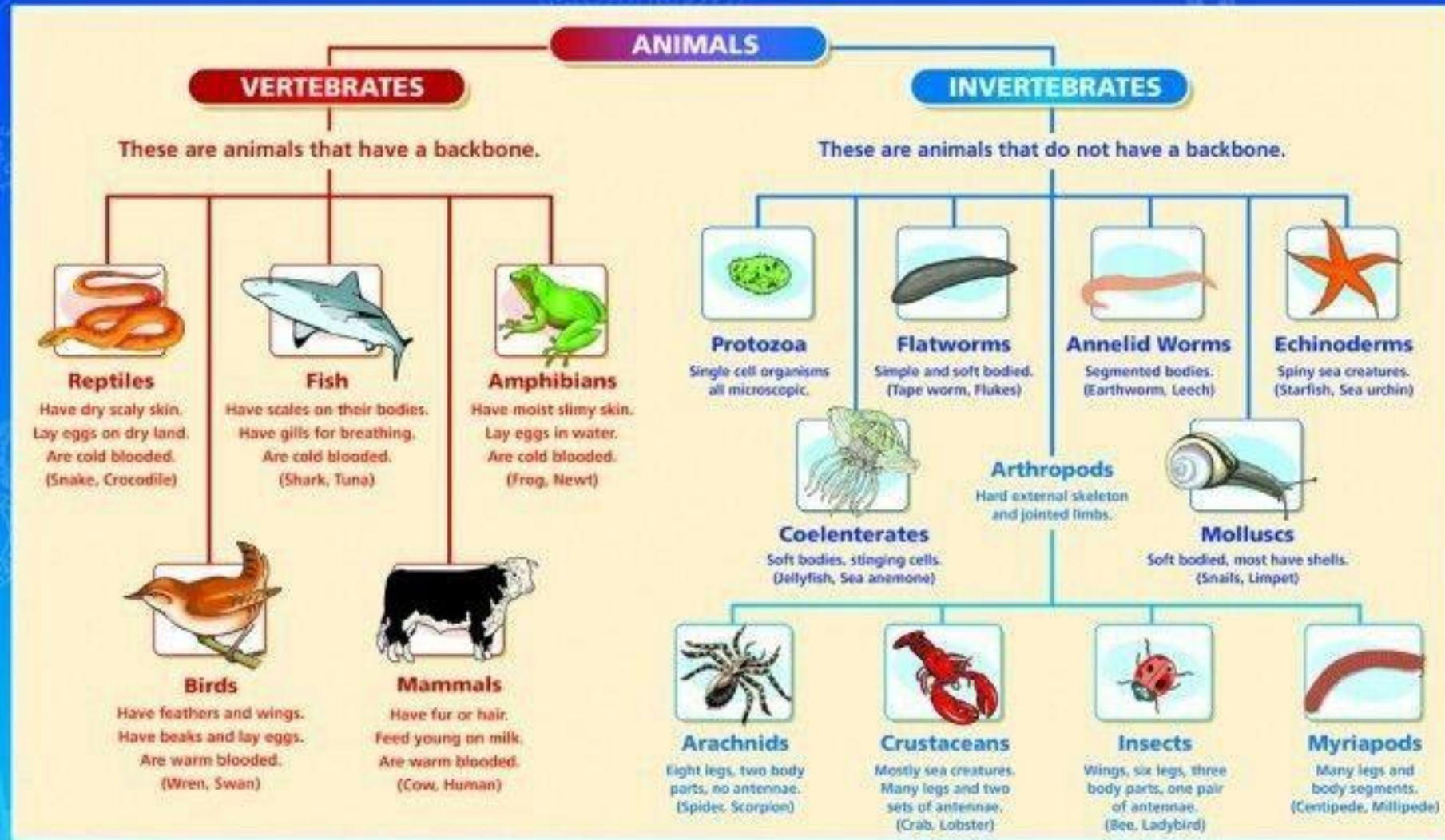
**Carl Linnaeus** was a **taxonomist** who lived in the 18th century. He **classified** animals and plants. He gave all animals and plants a two-word latin name so that all scientists could identify them.

## Key vocabulary

<b>taxonomy</b>	The part of science focused on classification
<b>taxonomist</b>	A scientist who sorts living organisms.
<b>classification classified</b>	Grouping something using its features
<b>characteristic</b>	Characteristics are features of living things which help scientists classify them
<b>Dichotomous questions</b>	Have only two possible answers eg yes or no
<b>distinguish</b>	Recognise a difference
<b>organism</b>	Living thing
<b>Vertebrate or chordata</b>	An animal with a backbone
<b>invertebrate</b>	An animal with no backbone
<b>arthropods</b>	An invertebrate with a jointed body with a skeleton on the outside of its body
<b>micro-organism</b>	Small living things including bacteria and yeast
<b>Exo skeleton</b>	Hard outer casing which supports and protects the body of some invertebrates.
<b>key</b>	A key is a series of question about the <b>characteristics</b> of living things. A key is used to identify a living thing or decide which group it belong to by asking <b>dichotomous</b> (yes or no) questions.

# CLASSIFICATION OF ANIMALS

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



# Classifying Animals

## Vertebrates

Vertebrates have a backbone

### Warm Blooded

### Cold Blooded

#### Mammals

Mammals usually have hair and feed their young on milk. They give birth to live young.

#### Birds

Birds have bodies covered in feathers and their forelimbs are wings. They have scaly legs and beaks. Their young come from hard shelled eggs.

#### Fish

Fish live in water and breath through gills. They usually have fins and have elongated bodies covered in scales.

#### Reptiles

Reptiles have dry scaly skin and most lay eggs. They get their oxygen from lungs.

#### Amphibians

Amphibians like moist or wet environments. They breath through their lungs as well as their skin. Their young hatch from eggs.

## Invertebrates

Invertebrates don't have a backbone

#### Insects

Insects have two antennae. Insects always have six legs and three body parts. Some insects have wings too.

#### Arachnids

Arachnids, or spiders, have eight legs. They have two body parts but no wings.

#### Molluscs

Some molluscs have a shell, but all have a soft body and muscular foot. Molluscs have no legs.

#### Annelids

Annelids have long thin bodies divided into little rings. They usually live in the soil.

#### Crustaceans

Crustaceans have a hard, external shell that protects their body.

#### Echinoderms

Starfish belong to a group of animals called echinoderms which means 'spiny skinned'.

