

## Key Content

Explain how to classify plants and animals based on specific characteristics.

Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals.

Classify plants and animals based on specific characteristics.

Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago

### Key Vocabulary

Amphibian (n) - an animal with an internal skeleton that lives both in and out of water  
 Bacteria (n) - single-celled organisms, most of which can only be seen with a microscope  
 Classification (n) - the action or process of classifying something  
 Fungi (n) - taxonomic kingdom comprising all the fungus groups and sometimes also the slime moulds  
 Invertebrate (n) - animal without a backbone  
 Kingdoms (n) - kingdom is a taxonomic rank that is composed of smaller groups called phyla  
 Mammal (n) - an animal that gives birth to live young  
 Microbe (n) - tiny single-celled bacteria  
 Mould (n) - various fungi that cover surfaces as fluffy mycelia  
 Photosynthesis (n) - the process by which plants use sunlight, water, and carbon dioxide to create oxygen and energy in the form of sugar  
 Species (n) - the sub-group within the genus that an organism belongs to  
 Vertebrate (n) - animal with a backbone

### Knowledge

#### Classification

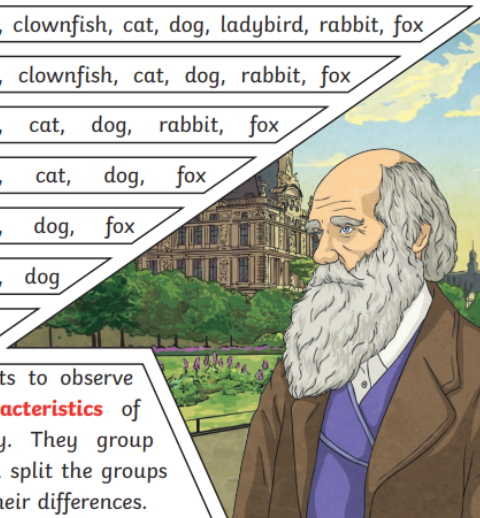
In 1735, Swedish Scientist Carl Linnaeus first published a system for **classifying** all living things. An adapted version of this system is still used today: The Linnaeus System.



Living things can be **classified** by these eight levels. The number of living things in each level gets smaller until the one animal is left in its species level. This is how a dog would be classified.

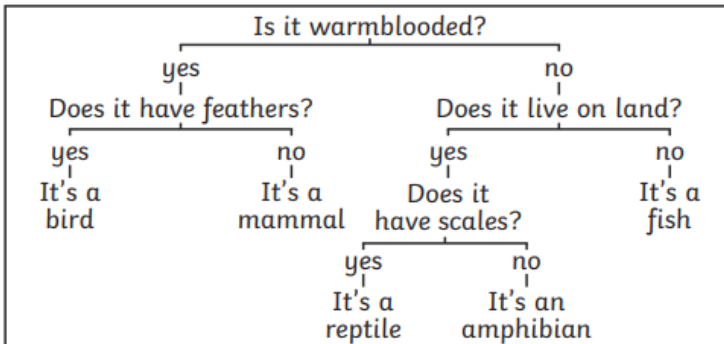
<b>Domain: Eukarya</b>	jackal, clownfish, cat, dog, ladybird, daisy, rabbit, fox
<b>Kingdom: Animalia</b>	jackal, clownfish, cat, dog, ladybird, rabbit, fox
<b>Phylum: Chordata</b>	jackal, clownfish, cat, dog, rabbit, fox
<b>Class: Mammalia</b>	jackal, cat, dog, rabbit, fox
<b>Order: Carnivora</b>	jackal, cat, dog, fox
<b>Family: Canidae</b>	jackal, dog, fox
<b>Genus: Canis</b>	jackal, dog
<b>Species: Lupus</b>	dog

Each group allows scientists to observe and understand the **characteristics** of living things more clearly. They group similar things together then split the groups again and again based on their differences.



### Knowledge

Scientists, called Taxonomists, sort and group living things according to their similarities and differences.



#### Microorganisms

**Microorganisms** are viruses, **bacteria**, moulds and yeast. Some animals (dust mites) and plants (phytoplankton) are also **microorganisms**.

**Microorganisms** are very tiny living things that can only be seen using a **microscope**. They can be found in and on our bodies, in the air, in water and on objects around us.