

Key Vocabulary	
<b>bacteria</b>	A single-celled <b>microorganism</b> .
<b>microorganism</b>	An organism that can only be seen using a <b>microscope</b> , e.g. <b>bacteria</b> , mould and yeast.
<b>microscope</b>	A piece of equipment that is used to view very tiny ( <b>microscopic</b> ) things by magnifying their appearance.
<b>species</b>	A group of animals that can reproduce to produce fertile offspring.
<b>characteristics</b>	Special qualities or appearances that make an individual or group of things different to others.
<b>classify</b>	To sort things into different groups.
<b>taxonomist</b>	A scientist who classifies different living things into categories.
<b>key</b>	A <b>key</b> is a series of questions about the <b>characteristics</b> of living things. A <b>key</b> is used to identify a living thing or decide which group it belongs to by answering 'yes' or 'no' questions.

**How to group living things.**  
 A Kingdom is the highest classification into which living organisms are grouped in Linnean taxonom. The five kingdoms in which living things are groups are: **Protista, Monera, Fungi, Plants, and Animals.**

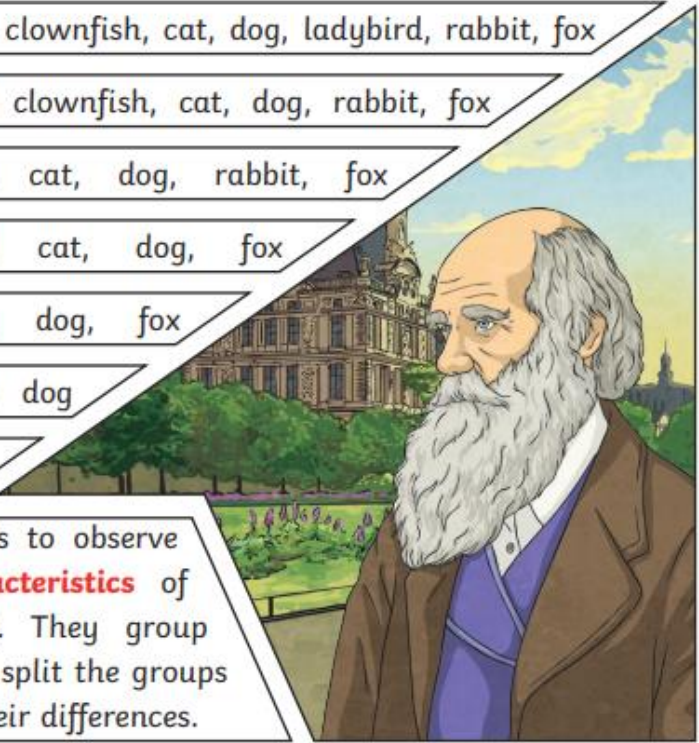
### Classification

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.

- Domain: Eukarya** jackal, clownfish, cat, dog, ladybird, daisy, rabbit, fox
- Kingdom: Animalia** jackal, clownfish, cat, dog, ladybird, rabbit, fox
- Phylum: Chordata** jackal, clownfish, cat, dog, rabbit, fox
- Class: Mammalia** jackal, cat, dog, rabbit, fox
- Order: Carnivora** jackal, cat, dog, fox
- Family: Canidae** jackal, dog, fox
- Genus: Canis** jackal, dog
- Species: Lupus** 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.



# Annunciation Catholic Junior School - SCIENCE KNOWLEDGE ORGANISER

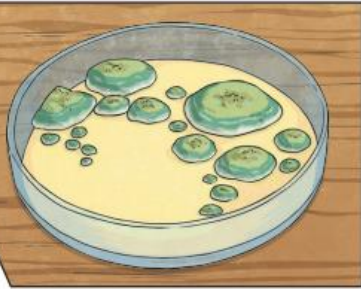
## YEAR 6 - LIVING THINGS AND THEIR HABITATS



### 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.



### Harmful Microbes

**Bacteria** – salmonella is a bacterium that can lead to food poisoning

Virus – chicken pox and flu are examples of viral diseases

Fungi – athlete's foot

**Bacteria** – plaque

Fungi - mould

### Helpful Microbes

**Bacteria** – cheese

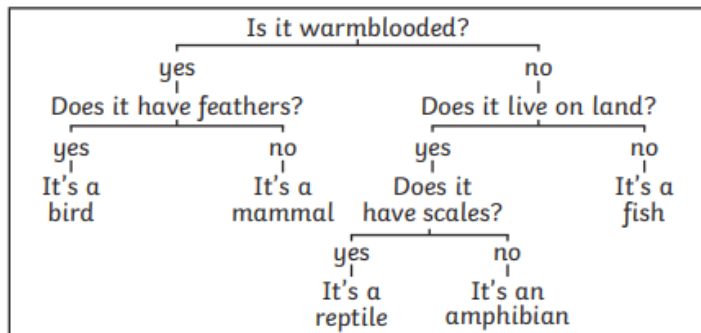
Yeast – wine

**Bacteria** – yoghurt

Yeast – bread dough






Penicillium fungi - antibiotics

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



### Plant Kingdom

Plants can be classified into 5 main groups and then sub-divided further.

<b>Ferns</b> 	A non-flowering plant with seeds or spores.
<b>Conifers</b> 	A non-flowering plant that are evergreen.
<b>Flowering</b> 	A plant that produces flowers.
<b>Algae</b> 	A non-flowering plant in water.
<b>Mosses and liverworts</b> 	Small flowerless plant, grown in damp habitats.

### Animal Kingdom

Animals can be classified in 2 main groups and then sub-divided further.

<b>Invertebrates</b>  Animals without a backbone.	Annelida worms-earthworms, leech	<b>Vertebrates</b>  Animals with a backbone.	Bird-penguin, owl, ostrich.
	Arthropods-spiders, ant, butterfly		Fish-tuna, shark, pike
	Molluscs-Snail, squid, octopus		Mammal-bat, dolphin, whale, humans
	Flatworm- moon flatworm, tape worm		Reptile-snake, crocodile, turtles.
Echinodermata-starfish, sea urchin.		Amphibian-toad, salamander, frog	

### Branching database

