

Frogwell School Year 6 Science Knowledge Organiser

Term 3

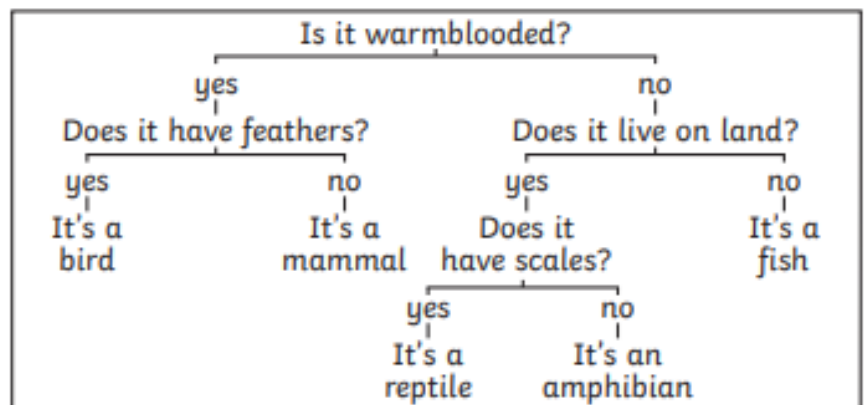
How are living things classified?

What I already know:

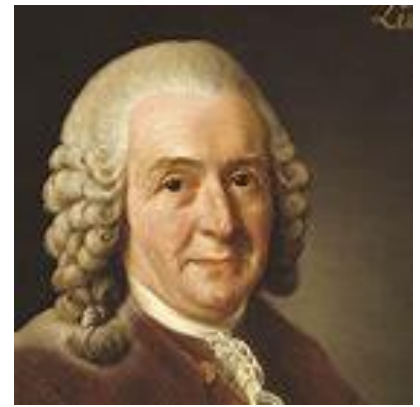
- I can recognise that living things can be grouped in a variety of ways
- I can explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.

<u>Key Vocabulary</u>	
organism	An organism is any living thing, from the smallest bacteria to the humongous blue whale.
classify	To sort things into different groups.
taxonomist	A scientist who classifies different living things into categories.
vertebrate	Vertebrates are animals that have a backbone inside their body. The major groups include fish, amphibians, reptiles, birds and mammals.
invertebrate	Invertebrates are animals that don't have a backbone.
key	A key is a series of questions about the characteristics of living things. A key is used to identify a living thing or decide which group it belongs to by answering 'yes' or 'no' questions.
microorganism	A living organism that can only be seen using a microscope, This includes viruses, certain fungi and bacteria. Some types can cause disease and how others are useful to us.
bacteria	A single-celled microorganism.
fungi	Fungi are a group of living organisms which are classified in their own kingdom. A fungus grows by feeding on other organisms.
virus	Can only survive inside the cells of other living things.
genus	A group of animals or plants with similar qualities or features. Scientists give living things a 2 part Latin name using the genus and the species.
species	A group of animals that can reproduce to produce fertile offspring.

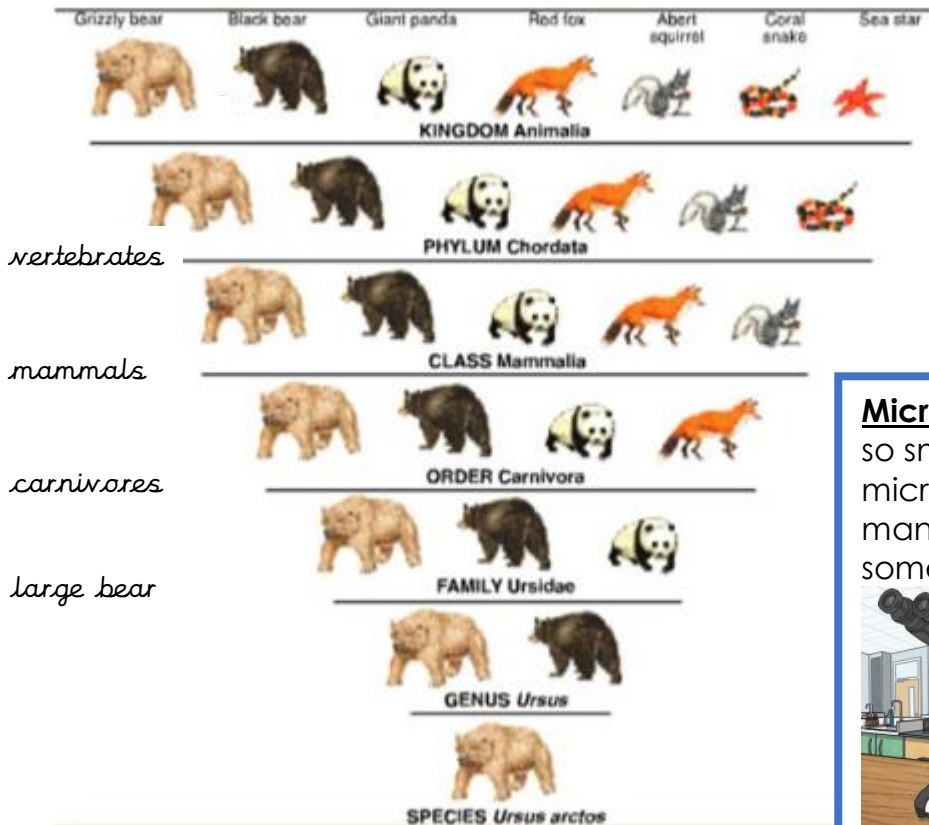
Scientists, called **Taxonomists**, sort and group living things according to their similarities and differences. This is an example of a key to classify vertebrates.



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.

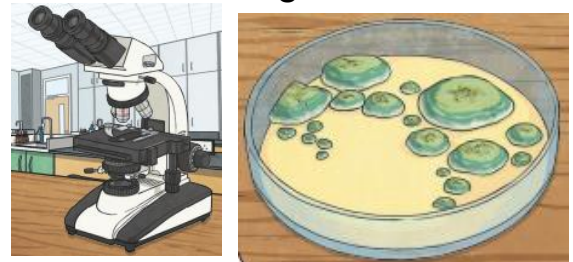


Living things can be classified by these levels. The number of living things in each level gets smaller until the one animal is left in its species level. This is how a grizzly bear would be classified.



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.

Microorganisms are tiny life forms, so small that we need a microscope to see them. There are many types: **bacteria**, **viruses** and some kinds of **fungi**.



Did you know that if you could weigh all the microorganisms on the Earth, they would weigh more than all other species combined? Microorganisms are found in every environment on the planet - even in the stomachs of cows and your own intestines!

Some microorganisms are helpful to us and others can be very harmful, even deadly!

Helpful Microorganisms	Harmful Microorganisms
<ul style="list-style-type: none"> • Bacteria – used to make cheese and yoghurt • Yeast – used to make wine and beer! • Bacteria – helps to digest food in your stomach • Yeast – used to make bread • Penicillium fungi - antibiotics 	<ul style="list-style-type: none"> • Bacteria – salmonella is a bacterium that can lead to food poisoning • Virus – chicken pox, flu and Covid-19 are examples of viral diseases • Fungi – athlete's foot • Bacteria – plaque on your teeth • Fungi – mould on food