



Be the Best We Can

Topic: Living things and their habitats

# Buglawton Primary School

Subject : Science Year: 6 Term:

## What should I already know?

- Recognise that living things can be grouped in a variety of ways. (Y4 - Living things and their habitats)
- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. (Y4 - Living things and their habitats)
- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. (Y5 - Living things and their habitats)
- Describe the life process of reproduction in some plants and animals. (Y5 - Living things and their habitats)

## What will I know by the end of the unit?

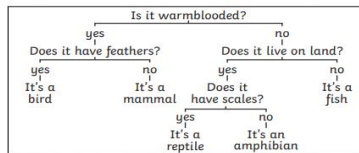
- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.
- Give reasons for classifying plants and animals based on specific characteristics.

## What will I be able to do by the end of the unit?

- Can give examples of animals in the five vertebrate groups and some of the invertebrate groups
- Can give the key characteristics of the five vertebrate groups and some invertebrate groups
- Can compare the characteristics of animals in different groups
- Can give examples of flowering and non-flowering plants
- Can use classification materials to identify unknown plants and animals


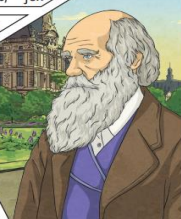
Key Vocabulary	
<b>characteristics</b>	Special qualities or appearances that make an individual or group of things different to others.
<b>classify</b>	To sort things into different groups.
<b>taxonomist</b>	A scientist who classifies different living things into categories.
<b>key</b>	A <b>key</b> is 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.

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



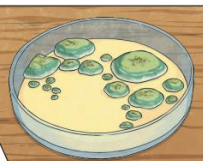
Classification	
In 1735, Swedish Scientist Carl Linnaeus first published a system for <b>classifying</b> all living things. An adapted version of this system is still used today: The Linnaeus System.	
Living things can be <b>classified</b> by these eight levels. The number of living things in each level 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: Animals</b>	jackal, clownfish, cat, dog, ladybird, rabbit, fox
<b>Phylum: Chordata</b>	jackal, clownfish, cat, dog, rabbit, fox
<b>Class: Mammals</b>	jackal, cat, dog, rabbit, fox
<b>Order: Carnivore</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.


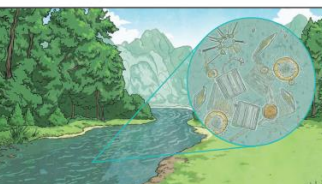

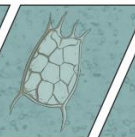
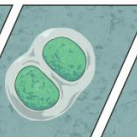




Key Vocabulary	
<b>bacteria</b>	A single-celled <b>microorganism</b> .
<b>microorganism</b>	An organism that can only be seen using a <b>microscope</b> , e.g. <b>bacteria</b> , mould and yeast.
<b>microscope</b>	A piece of equipment that is used to view very tiny ( <b>microscopic</b> ) things by magnifying their appearance.
<b>species</b>	A group of animals that can reproduce to produce fertile offspring.


Microorganisms	
<b>Microorganisms</b> are viruses, <b>bacteria</b> , moulds and yeast. Some animals (dust mites) and plants (phytoplankton) are also <b>microorganisms</b> .	
<b>Microorganisms</b> are very tiny living things that can only be seen using a <b>microscope</b> . They can be found in and on our bodies, in the air, in water and on objects around us.	



Helpful Microbes	Harmful Microbes
<b>Bacteria</b> - cheese	<b>Bacteria</b> - salmonella is a bacterium that can lead to food poisoning
Yeast - wine	Virus - chicken pox and flu are examples of viral diseases
<b>Bacteria</b> - yoghurt	Fungi - athlete's foot
Yeast - bread dough	<b>Bacteria</b> - plaque
Penicillium fungi - antibiotics	Fungi - mould

<ul style="list-style-type: none"> <li>• Can create classification keys for plants and animals</li> <li>• Can give a number of characteristics that explain why an animal belongs to a particular group</li> </ul>	
<p><b>Agreed Real-life Outcome</b></p> <ul style="list-style-type: none"> <li>• Create an imaginary animal which has features from one or more groups.</li> </ul>	

<p><b>Assessment:</b></p> <p>Assessment:  Cold task: go through vocabulary: What do they know?  Record on post it notes and add to group books  Hot task: update what they know regarding the vocabulary.  Complete Headstart topic test and add in a pocket of group books.  Complete Headstart term tests: end of Autumn, Spring and Summer. Add data to DC PRO</p>		
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