

## Key Images and



amphibians



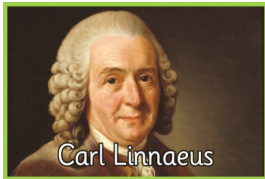
invertebrates



echinoderm



crustaceans



Carl Linnaeus



birds



arachnids



annelids

## Subject Specific Vocabulary

<b>micro-organisms</b>	a microscopic organism, especially a bacterium, virus, or fungus.	<b>classification system</b>	A collection of procedures, characteristics, and <b>definitions</b> used to <b>classify</b> and/
<b>fungus</b>	any of a group of spore-producing organisms feeding on organic matter, including moulds, yeast, mushrooms, and toadstools.	<b>monera</b>	<i>Monera</i> is a kingdom that contains unicellular organisms without a nucleus, such as
<b>bacteria</b>	A member of a large group of unicellular microorganisms which have cell walls but lack organelles and an organized nucleus, including some which can cause disease.	<b>vertebrates</b>	An animal of a large group distinguished by the possession of a backbone or spinal column, including mammals, birds, reptiles, amphibians, and fishes.
<b>viruses</b>	A <i>virus</i> is a small infectious agent that replicates only inside the living cells of an organism.	<b>invertebrates</b>	An animal lacking a backbone, such as an arthropod, mollusc, annelid, coelenterate, etc. The invertebrates constitute an artificial division of the animal kingdom, comprising 95 per cent of animal species.
<b>spores</b>	A reproductive body that is produced by fungi and by some plants and microorganisms and consists of a single cell able to produce a new individual.	<b>Carl Linnaeus</b>	Carl Linnaeus was a Swedish scientist who believed it was very important to have a
<b>air-born</b>	A method that causes viruses to spread.	<b>cells</b>	The <b>cell</b> is the smallest unit with the basic properties of life. Some tiny organisms, such as bacteria and yeast, consist of only one <b>cell</b> . Large plants and animals have many billions of <b>cells</b> .
<b>microscopic</b>	So small as to be visible only with a microscope.		

<b>Beach</b>	<b>Silver</b>	<b>Lyme</b>	<b>Oak</b>
<b>Maple</b>	<b>Sycamore</b>	<b>Conifer</b>	<b>Ever green</b>
<b>smallpox</b>	<b>virus</b>	<b>treatment</b>	<b>prevention</b>

## How would you classify these items?



Scientists need to use a standard recognised method for classifying living things. Do you know any of the ways they do this?



### Scientific Skills

In this unit, Year 6 children will:

- ask questions and develop a line of enquiry based on observations.
- make predictions using scientific knowledge and understanding.
- observe and make accurate measurements using a range of methods for different investigations.
- use and develop keys and other information records to identify, classify and describe with increased accuracy.
- select, plan and carry out the most appropriate types of scientific enquiries to test predictions.
- suggest improvements to plans and explain the reasons why.
- present observations and data using appropriate methods
- interpret observations and data, including identifying patterns and data to draw conclusions.
- present and evaluate reasoned explanations, including data in relation to predictions and hypotheses.
- identify further questions arising from results to make predictions to set up further comparative tests.

### Additional Information

**Viruses** are the smallest of the microbes and are generally harmful to humans. Viruses cannot survive by themselves. They need a 'host' cell in order to survive and reproduce. Once inside the host cell, they rapidly multiply and destroy the cell in the process!

**Bacteria** are single-celled organisms that, under the right conditions, can multiply once every 20 minutes. During their normal growth, some produce substances (toxins) which are extremely harmful to humans and cause disease. Others are completely harmless to humans, and others can be extremely useful to us (e.g. Lactobacillus in our food).

**Carl Linnaeus** was a Swedish scientist who believed it was very important to have a standard system of classification. At the time he was alive, in the 1700s, there was no agreed standard method.

Linnaeus collected and examined over 40,000 specimens of plants, animals and shells. In 1735, he published his first edition of 'Systema Naturae', which described his system for classifying living things.

# Living Things and Their Habitats



### What should I already know?

Year 6 children will build on their learning about grouping living things in year 4 by looking at the classification system in more detail. They will be introduced to the idea that broad groupings, such as micro-organisms, plants and animals can be subdivided.

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

- I will be able to identify micro-organism (fungi) in the local area.

- I will investigate the best conditions for fungi (micro-organism) to thrive.

- Classify micro-organisms in the local area into broad groups based on similarities and differences.

- Explore the differences between bacteria and viruses.

-Explore how some bacteria is helpful and some is harmful.

- Classify by subdividing micro-organisms

- Describe how living things are classified into broad groups based on observable characteristics  
-Create an animal classification system with a key whilst explaining reasons why.

-Classify animals as vertebrates and invertebrates into broad groups in the local area, describing reasons why.