

Science Y6 Autumn 2 Classification

In this unit of work the children will sort and classify animals based on their key features. Describe Carl Linnaeus and his development of his classification system. Place animals into given groups based on certain characteristics. Design a creature with a specific set of characteristics, using prompts and a word grid. Set up an investigation into harmful microorganisms and complete descriptions on the characteristics of groups of organisms, using images as prompts.

In this unit children will:

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.

Give reasons for classifying plants and animals based on specific characteristics.

Sort vertebrate and invertebrate animals into groups, describing their key features.

Use secondary sources to learn about the formal classification system by Carl Linnaeus

Sort scenarios where microorganisms might be harmful (infectious diseases) or helpful (yeast in baking).

Use classification systems and keys to identify some plants and animals in the immediate environment and then create their own classification key for plants and animals.

Prior Learning

EYFS - Use talk to solve problems and describe their thinking

Y2 – Describe how animals get their food in a food chain.

Y4 - I know how to use classification keys to help group, identify and name a variety of living things in their local and wider environment.

Y5 - I know how the life process of reproduction works in some plants and animals.

Cross Curricular Links

PSHCE – Health and well-being.

Key Vocabulary

Adaptation – A change in structure or function that improves the chance of survival for an animal or plant within a given environment.

Carnivore – An animal that eats meat.

Characteristics – The qualities or features that belong to them and make them recognisable.

Classification key – A system which divides things into groups or types.

Criteria – A factor on which something is judged.

Energy – The ability and strength to do physical things.

Environment – All the circumstances, people, things and events around them that influences their life.

Evolution – A process of change that takes place over many generations, during which species of animals, plants or insects slowly change some of their physical characteristics.

Food chain – A series of living things which are linked to each other because each thing feeds on the one next in the series.

Herbivore – An animal that only eats plants.

Invertebrate – A creature that doesn't have a spine.

Species – A class of plants or animals whose members have the same main characteristics.

Key Knowledge

Living things can be grouped according to different criteria (where they live, what type of organism they are, what features they have). For example, a camel can belong in a group of vertebrates, a group of animals that live in the desert and a group of animals that have 4 legs. A classification key is a tool that is used to group living things to help us identify them using recognisable characteristics.

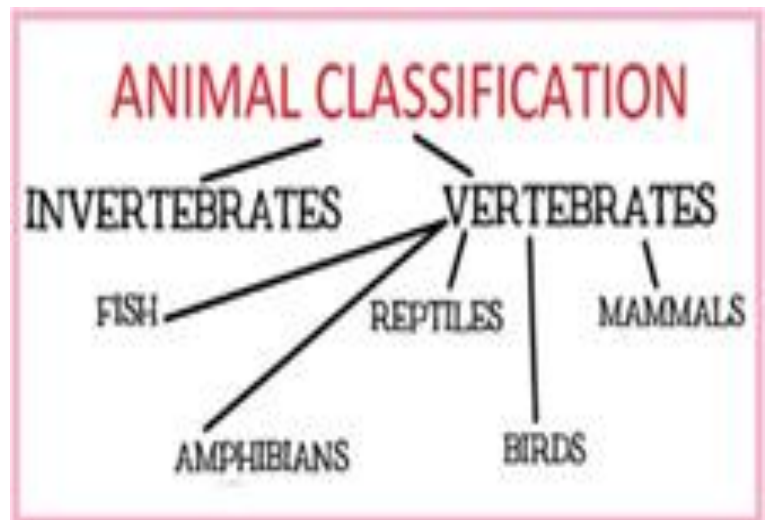
The Linnaean system, named after Carl Linnaeus, has different levels where the number of living things in each group gets smaller and smaller, until there will be just one type of animal in the species group.

Microorganisms are tiny organisms where a microscope has to be used to see them.

Examples of microorganisms include dust mites, bacteria, and fungi such as mould.

Some microorganisms can be helpful in certain situations. Yeast is used to make beer and bread and foods such as cheese, yogurt and marmite are all made with microorganisms.

Yeast is a microorganism that is used to make bread. The bread dough needs to be kept warm to help the yeast to grow. As the yeast grows, it feeds on sugar in the bread dough and makes a gas. The gas makes the dough rise and when the bread is cooked you can see lots of tiny holes in the bread formed by bubbles of gas.



Others can be harmful, and their spread needs to be controlled or contained. Bacteria are microorganisms that makes people ill. Bacteria can also cause food poisoning, tooth decay and ear infections.

Key Questions

Which of these is not a vertebrate – a bird, mammal, reptile, insect, or amphibian?

Name one thing that makes a tiger and a lion different.

Give an example of a microorganism.

Which microorganisms are harmful?

What is Carl Linnaeus famous for and why is his work important?