Topic: Living Things and their Habitats: Classification — Year 6

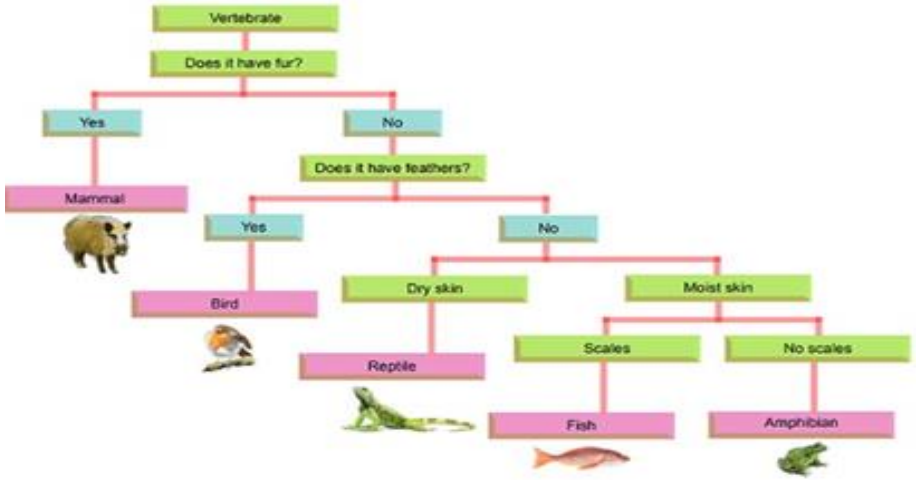
What should I already know?

- Animals can be grouped into **carnivores, herbivores** and **omnivores.** They can also be grouped into **vertebrates** and **invertebrates.**
- **Organisms** can be **classified** and we can use a **classification key** to identify them.
- Examples of **habitats** (including **microhabitats**) and the **organisms** that can be found there.
- Living things depend on each other to survive.
- How **environments** are changing and how changes endanger living things.
- The relationships between **predators** and **prey**.
- How the **life cycles** of mammals, amphibians, insects and birds differ.
- How animals **reproduce** and the difference between sexual and asexual **reproduction** in plants.
- **Food chains** demonstrate the direction in which **energy** travels.
- How **organisms** have **adapted** and **evolved** over time.

Scientific Learning

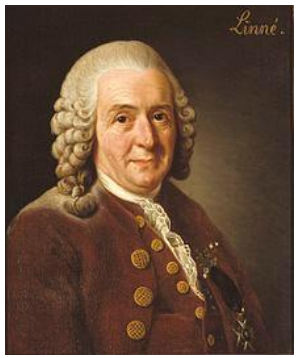
What are **microorganisms?**	• **Microorganisms** are very tiny **organisms** where a microscope has to be used to see them. • Examples of **microorganisms** include dust mites, bacteria and fungi, such as mould. • Some **microorganisms** can be helpful in certain situations. Others can be harmful, and their spread needs to be controlled or contained.
Scientific Enquiry	• Sort **vertebrate** and **invertebrate** animals into groups, describing their key features. • Use a **classification key** to identify which group of **vertebrate** animals belong to. • Explore the different ways in which **invertebrates** can be **classified** (e.g. arachnids, insects, molluscs). • Describe some **organisms** that may be difficult to **classify** (e.g. platypus) and explain why. • Sort scenarios where **microorganisms** might be helpful (e.g. yeast in baking) or harmful; (e.g. infectious diseases). • Use **classification systems** and keys to identify some **organisms** in the immediate **environment**. Record these in a variety of ways (e.g. Venn and Carroll diagrams, tables) • Research unfamiliar **organisms** from a broad range of other **habitats** and decide where they belong in the **classification system.** • Research the work of Carl Linnaeus

- 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 four legs.
- A **classification key** is a tool that is used to group living things to help us identify them using recognizable **characteristics.**



KEY VOCABULARY

adaptation	a change in structure or function that improves the chance of survival for an animal or plant within a given **environment**
characteristics	the qualities or features that belong to them and make them recognizable
classification key	a system which divides things into groups or types
criteria	list of characteristics
environment	all the circumstances, people, things and events around them, that influence their life
evolution	a process of change that takes place over many generations, where **species** of animals, plants, or insects slowly change some of their physical **characteristics**
kingdom	first step of classifications (5 Kingdoms of living things)
microorganism	a very small living thing which you can only see if you use a microscope
organism	a living thing
species	a class of plants or animals whose members have the same **characteristics** and are able to breed with each other



Carl Linnaeus (1707-1778)
Linnaeus classified living things using their Genus and species names.
Binominal=Two names: the Genus (always with a capital letter) & species (an adjective) e. g. Blackcurrant= ***Ribes nigrum***
Genus= ***Ribes (currant)***
species= ***nigrum (black)***

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 just be one type of animal in the **species** group.