

# Science Knowledge Organiser



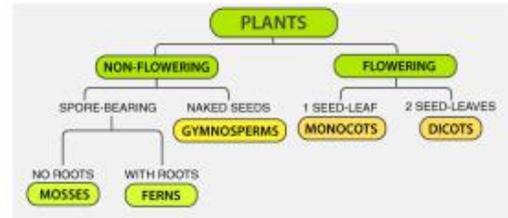
**Topic: Living things and Their classification**

**Year 6: Spring Term**

**Strand: Biology**

**What should I already know?**

- There are different types of animals – mammals, reptiles, fish, amphibians, insects and birds
- There are vertebrates and invertebrates
- Things can be grouped based on their similarities
- How animals and flowers reproduce



**Flowering plants** – numerous and diverse group. Reproduce through flowers and seeds. E.g. sunflower

**Non-flowering plants** – smaller group. They have a simple structure and do not have flowers or seeds. They reproduce through spores. E.g. algae, mosses

## Significant scientists

**Carl Linnaeus (1707-1778)**



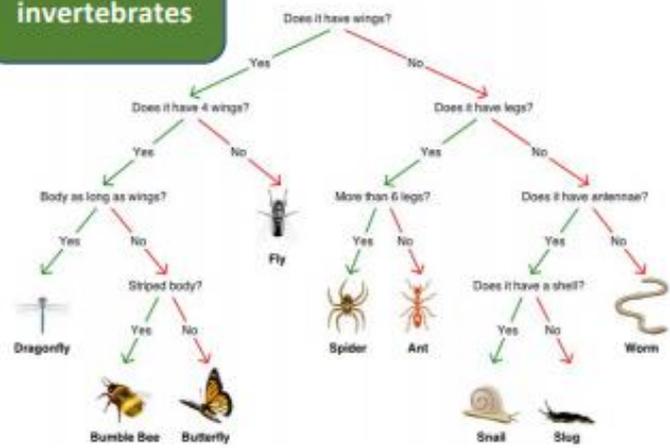
Carl Linnaeus was a Swedish scientist who developed the modern system of classifying and naming organisms. Before this the names of living things were often very long. He gave them a two-part name.

## Key vocabulary

<b>vertebrate</b>	Animals that have a backbone. They can be divided into 5 groups: fish, amphibians, reptiles, birds and mammals.
<b>fish</b>	- cold-blooded - scales covering its body - has fins - lives in water, lays eggs in water - breathes through gills
<b>amphibian</b>	- cold-blooded - start as eggs in water and breathe through gills - later develop lungs and live on land and in water - lays eggs in water - damp skin/body
<b>reptile</b>	- cold-blooded - breathes with lungs - dry, scaly skin - lay soft-shelled eggs on land
<b>bird</b>	- warm-blooded - breathes with lungs - lays eggs with hard shells - covered with feathers - have wings but not all can fly
<b>mammal</b>	- warm-blooded - have fur or hairy skin - give birth to live young - feed their young milk
<b>invertebrate</b>	Animals that do not have a backbone. Can be divided into several groups including insects, spiders, snails and worms.
<b>plants</b>	Can make their own food. They can be divided broadly into two main groups: flowering plants and non-flowering plants.



## Classifying invertebrates



**Classification**  
Living things can be classified into broad groups according to observable characteristics that are similar or different.

**Micro-organisms**  
These are tiny living creatures. Most can only be seen through a microscope. They can be sub-divided into smaller groups including **bacteria, fungi** and **viruses**.