As a Scientist…

Living Things and Their Habitats — Year 4

Key Vocabulary	
organisms	This is another word that can be used to mean 'living things'.
life processes	The things living things do to stay alive.
respiration	A process where plants and animals use oxygen gas from the air to help turn their food into energy.
sensitivity	The way living things react to changes in their **environment**.
reproduction	The process through which young are produced.
excretion	The process by which living things get rid of waste products.
nutrition	The process of obtaining food to provide living things with energy to live and stay healthy.
habitat	The specific area or place in which particular animals or plants may live.
environment	An **environment** contains many **habitats** and these include areas where there are both living and non-living things.
endangered species	A plant or animal where there are not many of their species left and scientists are concerned that the species may become **extinct**.
extinct	When a species has no more members alive on the planet, it is **extinct**.

Life Processes

To stay alive and healthy, all living things need certain conditions that let them carry out key life processes.

Changes to an **environment** can be natural or caused by humans. Changes to an **environment** can have positive as well as negative effects. Here are some examples of things that can change an **environment**.

Natural
- earthquakes
- storms
- floods
- droughts
- wildfires
- the seasons

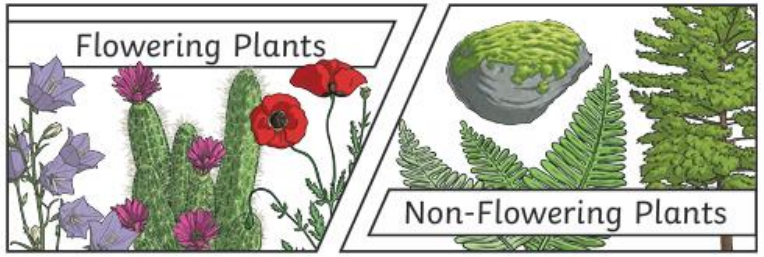
Human-Made
- deforestation
- pollution
- urbanisation
- the introduction of new animal or plant species to an **environment**
- creating new nature reserves

Plants and animals rely on the **environment** to give them everything they need. Therefore, when **habitats** change, it can be very dangerous to the plants and animals that live there.

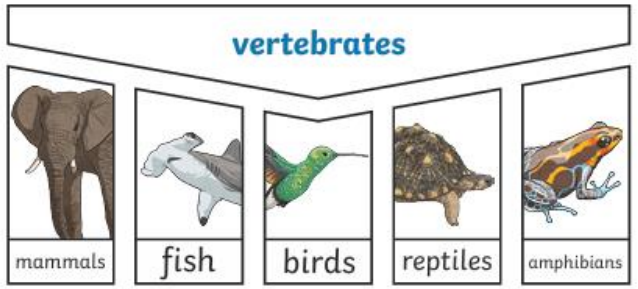
As a Scientist…

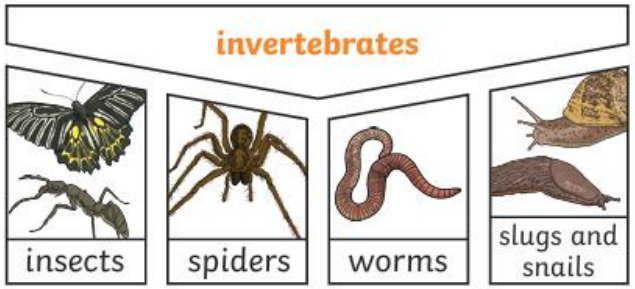
Key Vocabulary	
classification	This is where plants or animals are placed into groups according to their similarities.
vertebrates	Animals with a backbone.
invertebrates	Animals without a backbone.
specimen	A particular plant or animal that scientists study to find out about its species.
characteristics	The distinguishing features or qualities that are specific to a species.

Plants can be sorted into many different groups. For example:



Animals can be grouped in lots of different ways based upon their **characteristics**.



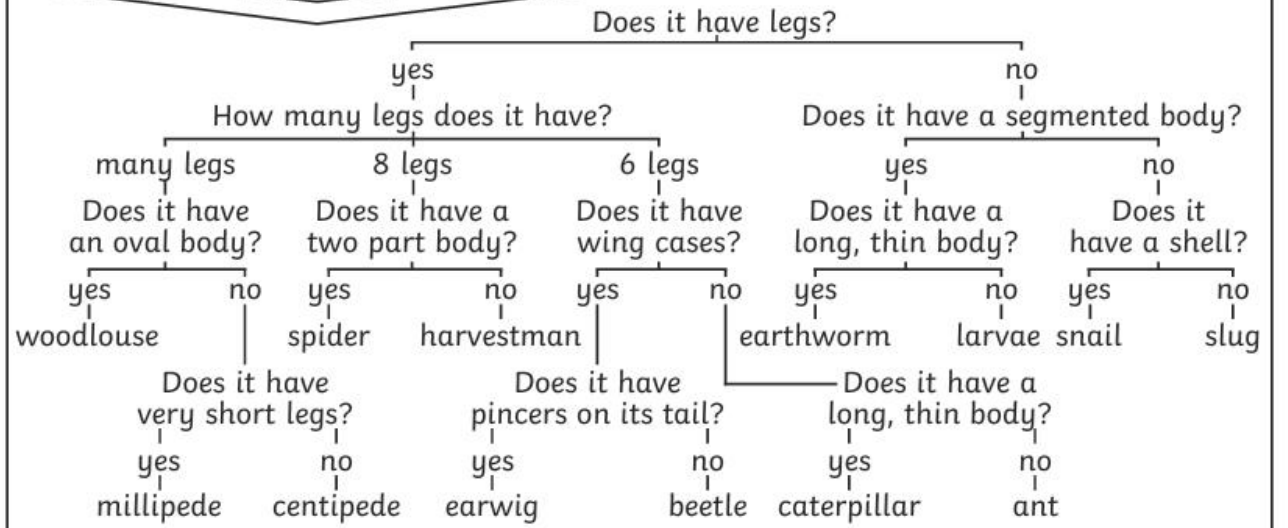


Vertebrates can be separated into five broad groups.

You could sort **invertebrates** you might see around school in different ways, such as in this example. The vast majority of living things on the planet are **invertebrates**.

You can use **classification** keys to help group, identify and name a variety of living things. Here is an example of a **classification** key:

Invertebrate Classification Key



As a Scientist…

- In year 2 I learnt to:
- Explore and compare the difference between things that are living, dead and things that have never been alive.
- Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.
- Identify and name a variety of plants and animals in their habitats, including micro habitats.
- Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name the different sources of food.
- In year 4 I will learn to:
- Recognise that living things can be grouped in a variety of ways.
- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.
- Recognise that environments can change and that this can sometimes pose danger to living things.

In year 5 I will learn to:

- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- Describe the life process of reproduction in some plants and animals.