

Science Knowledge Organiser - Year 4

Unit: How can different living things be classified?

Key Vocabulary:

| | |
|---------------------------|--|
| classification | When plants or animals are grouped according to their similarities, we call it classification . |
| characteristics | Characteristics are the distinguishing features or qualities that are specific to a species. |
| endangered species | When there are very few of a species of plant or animal remaining, it is known as an endangered species . |
| environment | An environment contains many habitats where there are both living and non-living things. |
| excretion | Excretion is the process by which a living thing gets rid of waste products. |
| extinct | When a species has no more members alive on the planet, it is extinct . |
| habitat | A habitat is the specific area or place in which particular animals or plants may live. |
| invertebrates | Animals without a backbone are invertebrates . |
| life processes | Life processes are the things living things do to stay alive. |
| organisms | Organisms is a synonym for 'living things'. |
| nutrition | Nutrition is food which provides living things with energy to live and stay healthy. |
| reproduction | Reproduction is the process by which young are produced. |
| respiration | Respiration is the process where gas from the air is used to turn food into energy. |
| sensitivity | Sensitivity is the way living things react to changes in their environment. |
| vertebrates | Animals with backbones are vertebrates . |

Science Skills:

- 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 dangers to living things.
- Gather, record, classify and present data in a variety of ways to help answer questions.
- Identify differences, similarities or changes related to simple scientific ideas and processes.
- Use straightforward scientific evidence to answer questions.
- Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.
- Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.

Key Facts:

- To stay alive and healthy, all **organisms** need certain conditions that allow them to carry out the seven **life processes**.
- Changes to an **environment** can be natural or caused by humans.
- **Vertebrates** can be **classified** into five broad groups.

Life Processes

Movement **Growth**

Respiration **Reproduction**

Sensitivity **Excretion**

Nutrition

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
 - new species
 - new nature reserves

Living things rely on the **environment** to give them what they need. When **habitats** change, it can be very dangerous for the animals and plants that live there.

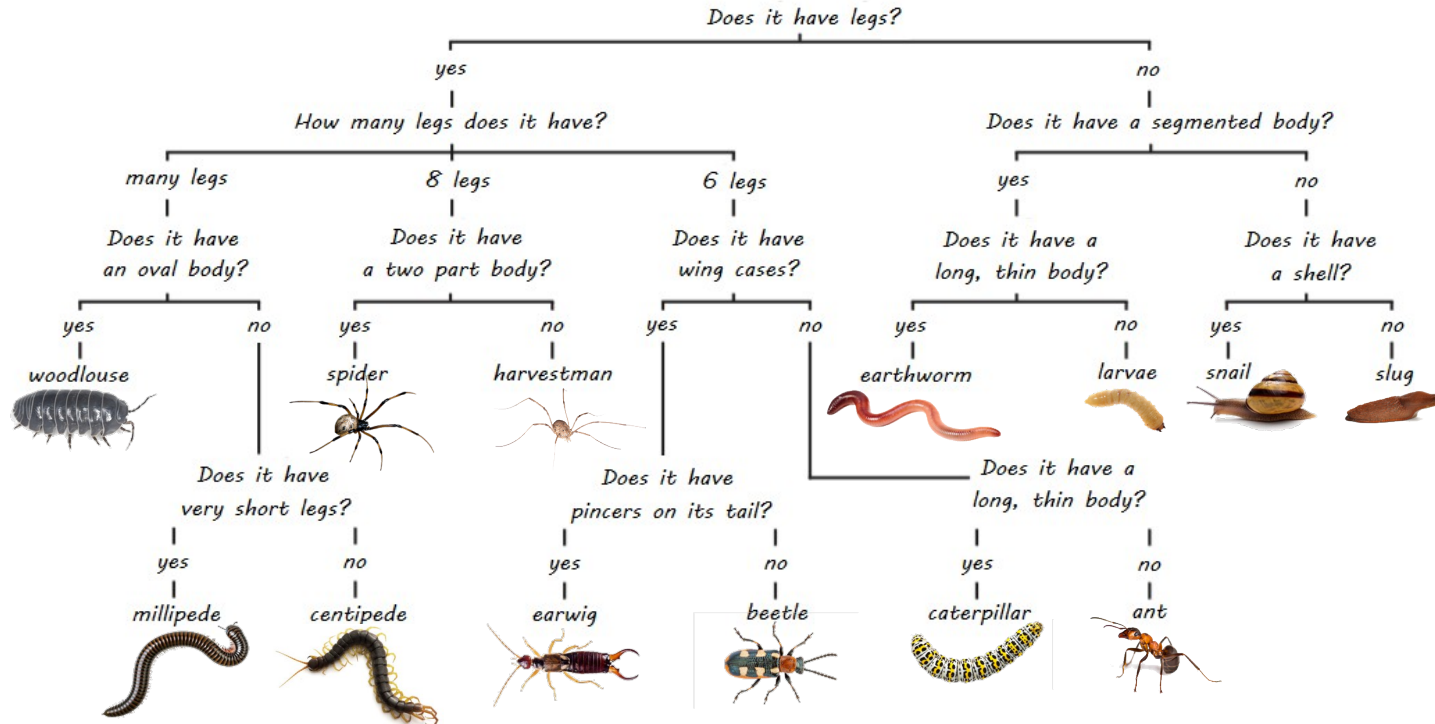
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Classification Keys

You can use **classification** keys to help group, identify and name a variety of living things.

Here is an example of an **invertebrate classification** key:



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

