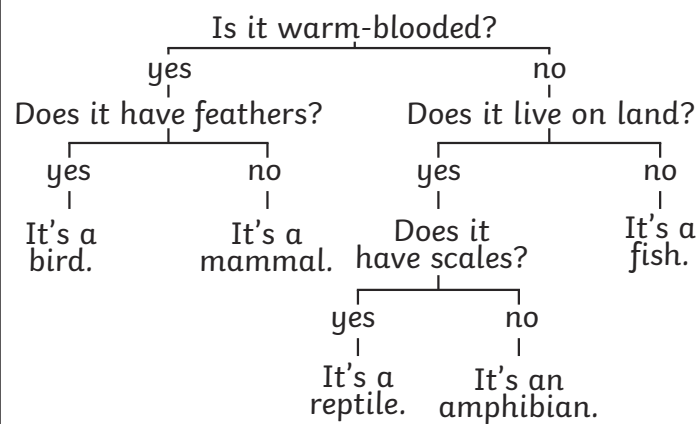


## Key Vocabulary

|                           |  |
|---------------------------|--|
| <b>microorganism</b>      | A <b>microorganism</b> is an <b>organism</b> that can only be seen using a microscope.   |
| <b>species</b>            | A <b>species</b> is a group of <b>organisms</b> with shared <b>characteristics</b> that can reproduce to produce fertile offspring.  |
| <b>characteristics</b>    | A <b>characteristic</b> is a particular feature or quality that is specific to an individual, <b>species</b> or group.   |
| <b>classification</b>     | <b>Classification</b> is the process of grouping living things according to their similarities.  |
| <b>classification key</b> | A <b>classification key</b> is a set of questions used to identify and group living things. They are usually based on an <b>organism's</b> physical <b>characteristics</b> . |
| <b>organism</b>           | ' <b>Organism</b> ' is another way to refer to a living thing.   |

## Classification

In the 1700s, Swedish scientist Carl Linnaeus published a system for classifying living things based on their observable **characteristics**, known as the Linnaean System. An adapted version of this system is still used today.



Taxonomists are scientists who sort, group and classify living things based on their similarities and differences. We can use a **classification key** to group and classify living things like a taxonomist does.

## Flowering and Non-Flowering Plants

Plants can be sorted based on whether they are flowering or non-flowering. Flowering plants use flowers to produce seeds at some point in their life cycle, whereas non-flowering plants reproduce using cones, spores and fragmentation.

Flowering plants include deciduous trees, many types of herbs and crop plants.

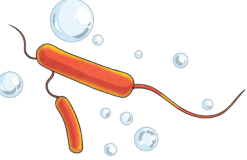
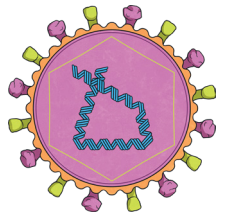
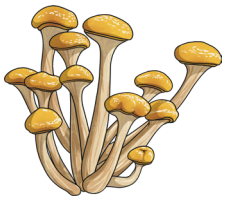


Non-flowering plants include conifers, mosses, ferns and liverworts.





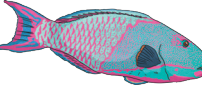


## Microorganisms

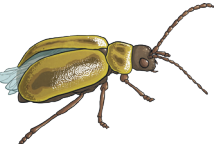



**Microorganisms** are microscopic **organisms** that can be found almost everywhere on Earth – including inside our bodies.

| Bacterium  | Virus   | Fungus  |
|--|---|---|
|  |  |  |
| cholera bacteria   | influenza virus   | honey fungus  |
| single-celled microorganism  | very simple structure   | can be very small or very large   |
| found almost everywhere on Earth   | scientists often disagree about whether they are alive or not                     | often have a fruiting body and a network of threads                               |
| can be spherical, rod shaped or curved/spiral                                    | require a host to reproduce   | reproduce through releasing spores  |

## Vertebrate Groups

| Mammal   | Bird  | Reptile   | Amphibian   | Fish  |
|--|---|---|---|---|
|  |  |  |  |  |
| warm-blooded<br>fur or hair<br>give birth to live young<br>produce milk            | warm-blooded<br>feathers<br>lay eggs<br>beak and wings                              | cold-blooded<br>scales or scutes<br>usually lay eggs                                | cold-blooded<br>moist or slimy skin<br>often undergo metamorphosis                  | cold-blooded<br>live in water<br>scales and fins<br>gills                           |

## Some Invertebrate Groups

| Arthropod   | Annelid  | Mollusc  | Echinoderm   |
|---|--|--|--|
|  |  |  |  |
| segmented legs<br>include insects, crustaceans and arachnids                        | segmented bodies<br>no legs<br>include earthworms and leeches                        | segmented bodies<br>no legs<br>include slugs and octopuses                           | live in salt water<br>tube feet<br>include sea stars and sea urchins                 |