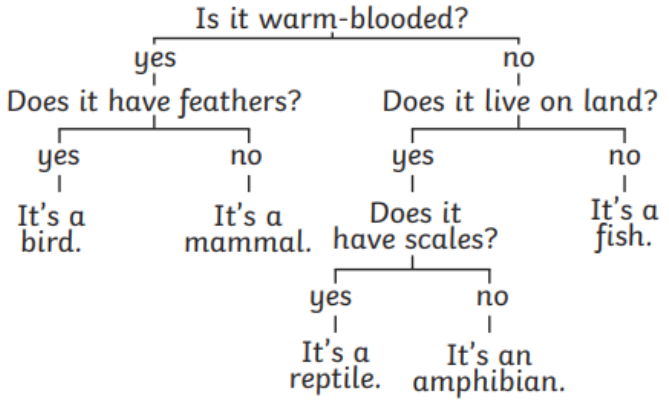
As a Scientist…

Living things and their habitats

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

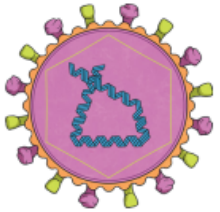
Flowering plants include deciduous trees, many types of herbs and crop plants.

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

As a Scientist…

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 fur or hair give birth to live young produce milk	warm-blooded feathers lay eggs beak and wings	cold-blooded scales or scutes usually lay eggs	cold-blooded moist or slimy skin often undergo metamorphosis	cold-blooded live in water scales and fins gills

Some Invertebrate Groups

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

As a Scientist…

In year 5 I learnt 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
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- Describe the life process of reproduction in some plants and animals.

In year 6 I will learn to:

- Classify living things into broad groups according to observable characteristics and based on similarities and differences.
- Give reasons for classifying plants and animals based on specific characteristics.
- Know how animals and plants are adapted to suit their environment.
- Know about reproduction and offspring (recognising offspring normally vary and are not identical to their parents).