
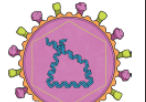



Year 6 Science – Living Things and Their Habitats Knowledge Organiser

How do we group microorganisms?

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

How do we use classification keys to group plants?

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.



Golden Knowledge (everyone should know this information).

- Living things are classified into broad groups according to common observable characteristics and based on similarities and differences.
- Living things are classified into three main groups: microorganisms, plants and animals

Key Vocabulary






characteristics	A particular feature or quality that is specific to an individual, species of group.
classification	The process of grouping living things according to their similarities.
classification key	A set of questions used to identify and group living things. They are usually based on an organism's physical characteristics
microorganism	An organism that can only be seen using a microscope.
organism	Is another way to refer to a living thing.
species	A group of organisms with shared characteristics than can reproduce to produce offspring.





Why is classification important?

There are millions of different types of living things on Earth. In order to keep track of them all, scientists put living things into groups based on characteristics that they have that are the same. This is called classification.

Making links between characteristics and spotting what is the same and what is different about them, helps us to understand more about the animals and plants around us. It also helps scientists to identify and classify new species that are found.

How do we use classification keys to group animals?

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

Why is Carl Linnaeus Important?

In the 1700s, Swedish scientist Carl Linnaeus (1797-1778) 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.

