



Year 4 Science

Living Things and their Environments

Things you should already know:

- Animals can be grouped into vertebrates (and then further into fish, reptiles, amphibians, birds and mammals) and invertebrates
- Animals can be grouped into carnivores, herbivores and omnivores
- The differences between the teeth of carnivores and herbivores.
- The names of some common wild and garden plants and deciduous and evergreen trees.
- Examples of habitats (including microhabitats) and the animals and plants that can be found there.
- Living things depend on each other to survive.
- How land use has changed over time and the effects this has on the environment (e.g. urban development).

Key Knowledge

- Complete Venn diagrams to show if living things can be grouped into two or more groups.
- Use **criteria** to sort living things into a Carroll diagram
- Sort **vertebrate** and **invertebrate** animals into groups, describing their key features. Use a **classification key** to identify which group of **vertebrate** animals belong to and then create your own.
- Sort plants into groups (e.g. flowering plants and non flowering plants) and then create a **classification key** to help others to identify plants.
- Carefully observe **minibeasts** in a **microhabitat** and use a **classification key** to identify them.
- Use simple computer software programmes to create a branching **classification key**.

New Learning for Year 4.

- All living things, which can also be called organisms, have to do certain things to stay alive. These are the life processes:
 - movement
 - respiration
 - sensitivity
 - growth
 - reproduction
 - excretion
 - nutrition
- Living things can be grouped according to different criteria (where they live, what type of organism they are, what features they have). For example, a camel can belong in a group of vertebrates, a group of animals that live in the desert, and a group of animals that have four legs.
- How Environments can change:

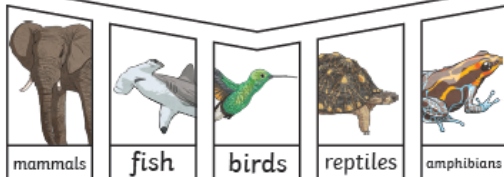
Habitats can change throughout the year and this can have an effect on the plants and animals that live there.

 - Humans can have positive and negative effects on the environment:
 - positive effects: nature reserves, ecological parks
 - negative effects: litter, urban development

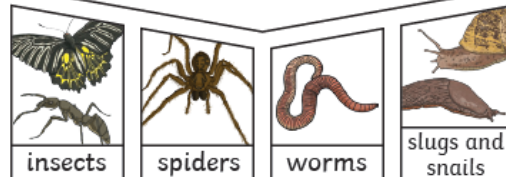


Animals can be grouped in lots of different ways based upon their **characteristics**.

vertebrates



invertebrates

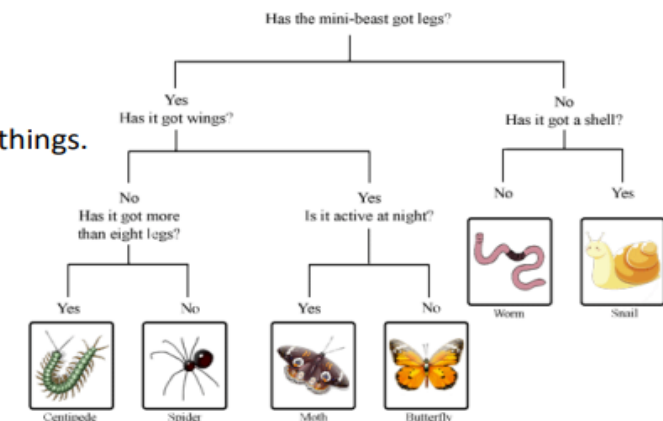


CLASSIFICATION KEYS

A set of yes or no questions about the characteristics of living things.

They are used to group and sort animals and plants.

Answer the questions and follow the Lines depending on whether the answer is yes or no.





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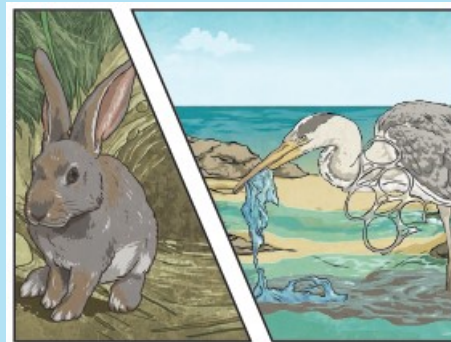
Key Vocabulary

Biomes	A natural area of vegetation and animals
Carnivore	An animals that eats meat
Classification key	A system which divides things into groups of types
Criteria	A factor on which something is judged
Deciduous	Trees that lose leaves in the autumn every year
Environment	All the circumstances, people, things and events around them that influence their life.
Evergreen	A tree or bush which has green leaves all the year round.
Excretion	The process of eliminating waste from the body.
Food chain	A series of living things which are linked to each other because each things feeds on the one next to it in the series.
Habitat	The natural environment in which an animal or plant normally lives or grows
Herbivore	An animals that only eats plants
Invertebrate	A creature that does not have a spine, for example an insect, a worm or an octopus.
Life processes	There are seven processes that tell us that living things are alive
Microhabitat	A small part of the environment that supports a habitat such as a fallen log in a forest
Nutrition	The process of taking food into the body and absorbing the nutrients in those foods.
Omnivore	Person or animal that eats all kinds of food, including both meat and plants.
Organism	A living thing
Reproduction	When an animal or plant produces one or more individuals similar to itself.
Respiration	Process of respiring breathing; inhaling and exhaling air.
Sensitivity	Responding to the external environment
Urban	Belonging to, or relating to a town or city.
Vegetation	Plants, trees and flowers
Vertebrate	A creature which has a spine

Sticky Learning.

Can you answer any of these questions in your book?

	can fly	can not fly
 salmon  sparrow  rabbit  frog	lays eggs	
	does not lay eggs	



Can you sort the animals into the correct place on this Carroll Diagram

Want to find out more? Follow the QR code to BBC bite size page.



What can we use to help us accurately identify living things?

A food chain	
Looking after the environment	
A classification key	
Living processes	