

Science Knowledge Organiser

Year 4 Summer 1

Living things and their habitats.

Year 4

Main Foci:

Biology

What should I 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).

Vocabulary

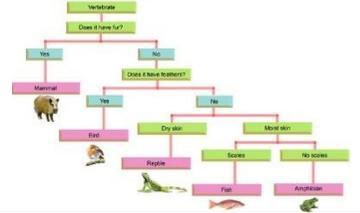
biomes	a natural area of vegetation and animals
carnivore	an animal that eats meat
classification key	a system which divides things into groups or types
criteria	a factor on which something is judged
deciduous	trees that lose leaves in the autumn every year
environment	all the circumstances, people, 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 thing 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 animal 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
minibeast	a small invertebrate animal such as an insect or spider
nutrition	the process of taking food into the body and absorbing the nutrients in those foods
omnivore	person or animal 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

What will I know by the end of the unit?

How do I group living things?

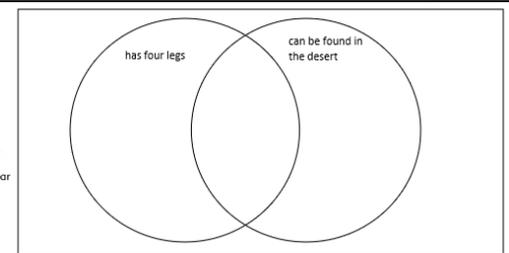
I will know that all **living things**, which can also be called **organisms**, have to do certain things to stay alive.

I will know that these are the life processes: movement, respiration, sensitivity, growth, reproduction, excretion, nutrition – know as **MRS GREN**



What is a vertebrate?

I will know that all living things can be grouped according to different **criteria**
I will know that this criterion is: (where they live, what type of organism they are, and features
I will know 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.
I will be able to use a **classification key** to identify which group of vertebrates animals belong to.



What is an invertebrate?

I will know how to sort **vertebrate and invertebrate** animals into groups, describing their key features.
I will know how to observe minibeasts in a microhabitat and use a classification key to identify them.



What is classification for plants?

I will know how to sort **plants** into groups (e.g. **flowering plants and non-flowering plants**)
I will know how to create a classification key to help others identify plants.



What can cause changes to our planet's habitats?

I will know that **habitats** can change and how this can have an effect on the plants and animals that live there.
I will know that humans can have positive and negative effects on the **global environment**:
I will know that there are **positive effects**: nature reserves, ecological parks
I will know that there are **negative effects**: litter, urban development
I will be able to explore examples of **human impact** (both positive and negative) on environments.

What do the effects of an environment have on living things?

I will know that **habitats** can change and how this can effect on the plants and animals that live there.
I will know that humans can have positive and negative effects on the **local environment**:
I will know that there are positive effects: nature reserves, ecological parks
I will know that there are negative effects: litter, urban development
I will be able to explore examples of human impact (both positive and negative) on environments.

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