

# Knowledge Organiser - Year 2 - Science: Living things and their habitats



**Most living things live in habitats to which they are suited. Different habitats provide for the basic needs of different kinds of animals and plants, which in turn depend on each other for survival.**

## Key Vocabulary

<b>Deceased</b>	No longer alive.
<b>Ecosystem</b>	A group of living organisms that live and interact with each other in a specific environment.
<b>Ecology</b>	The science that deals with living organisms. How they relate to one another and to their physical surroundings.
<b>Environment</b>	The surroundings or conditions in which a person, animal, or plant lives.
<b>Food chains</b>	A system where a plant is the food for a small animal and that animal is the food for a larger animal which, in turn, is the food for an even larger animal.
<b>Habitat</b>	The natural home or environment of an animal or plant where it has its needs met – food, shelter, warmth, air, water and it is able to reproduce.
<b>Living</b>	Something that has a life cycle, takes in gas, can grow, responds to and adapts to their environment, reproduces and evolves.
<b>Microhabitat</b>	This is a small area which is different from the surrounding larger habitat. Its special conditions may be home to unique species that may not be found in the larger region, e.g. Under a log in open grassland.
<b>Organisms</b>	An individual animal or plant.
<b>Nature Reserves</b>	An area of land that is protected in order to keep safe the animals and plants that live there, often because they are rare.
<b>Vertebrates</b>	An animal that has a backbone (spine).

## Working Scientifically

Pupils can sort and classify things according to whether they are living, dead or were never alive, and record their findings using charts. They should describe how they decided where to place things, exploring questions for example: 'Is a flame alive? Is a deciduous tree dead in winter?' and talk about ways of answering their questions. They could construct a simple food chain that includes humans (e.g. grass, cow, human). They could describe the conditions in different habitats and micro-habitats (under log, on stony path, under bushes) and find out how the conditions affect the number and type of plants and animals that live there.

## Key Question: Why do organisms live where they do?

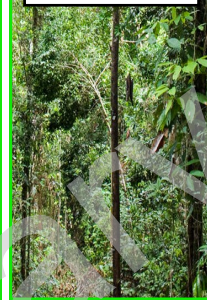


We can describe things as living, dead, or things that have been alive, but are not anymore. If you compare the things in these groups, you will start to see that they have some things in common. If something is said to be alive it has to be able to do seven basic things. It can move (even if it's just turning to face the sunlight), it can grow and create new copies of itself (reproduce a seed or baby animal). It can sense its environment and respond to it. It can take in food (nutrients) and air and release things it no longer needs like waste, water and gas. We call these seven things the requirements of life. Which of the objects in the pictures are alive or dead? Have any been alive, but are now not?

Polar habitat



Forest habitat

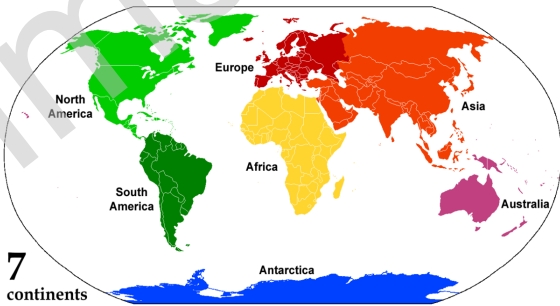


Living things live in habitats that are suited to their particular needs, for example; Polar, forest, Ocean or desert, to name a few. The different habitats provide for the basic needs of the different kinds of animals and plants that live there. They are an Ecosystem that live together and depend on each other for food and water. They can also survive the weather there.

Ocean habitat



Desert habitat



Within each habitat, plants are always at the start of a food chain. This gives energy to the animal that eats it. This animal (prey) is then eaten by another animal (a predator) and they, in turn, get energy.



We can compare habitats from across the world to see why the animals and plants are similar or different. Australia has some very interesting animals called marsupials which all have a pouch to keep their young in as they grow. In Africa, animals have to cope with heat and drought, so elephants have large, floppy ears to cool them down and huge trunks to drink water from deep holes - they can hold between 4 and 10 litres of water in their trunks!



If the animal only eats plants they are called a herbivore. Some animals eat both plants and animals and they are called omnivores. An animal that is a carnivore has a strict meat only diet. Looking at food chains allows us to see how life is organized within a habitat and even how it works within a microhabitat.