



Living Things and their Environments (Biology)

Year 2

End Points:

- Things can be living, dead or never been alive.
- Living things move, grow, need air and reproduce.
- Dead things were once alive but are no longer alive.
- A habitat is the name given to a place where animals or plants live.
- Rainforests are hot and moist.
- Deserts are dry and hot or cold.
- Some animals live in underground habitats and are adapted to living underground.
- A food chain describe 'who eats what' within a habitat.
- A food chain can consist of producers, consumers and predators.

Living things and their environments builds on the Year 1 unit, Animals and their Needs. In Year 1, children studied animals and learned that they cannot create their own food, like plants, and must eat other animals or plants to survive. Children were introduced to carnivores, herbivores and omnivores. They studied how scientists group animals according to their features and looked at examples of birds, fish, amphibians, reptiles and mammals. Animals and their Needs also introduced pets - children thought about what pets need and what makes a suitable pet. At the start of this Year 2 unit, it is advised that you link to children's prior learning and provide opportunities for them to remember some of the Year 1 knowledge.

This unit helps children to understand the difference between things that are alive, things that are dead and things that are inanimate (have never been alive). Asking questions about the differences between these things will help children to think scientifically. Children will build on their substantive knowledge of different types of animals as they learn about habitats including rainforests, deserts, meadows and underground habitats. Some of these habitats will be familiar to children, others may not. Studying a variety of habitats helps children to ask and answer questions about habitats and their features and helps children to grow a body of knowledge in this area. Children will learn that microhabitats are habitats that are very small or limited, for example, under a log. There are lots of opportunities within this unit to undertake observation out of the classroom; make use of any natural habitats you have in your local area to enrich this unit.

Within Living things and their Environment, children are introduced to the disciplinary concept of interdependence; a concept that will be returned to throughout the curriculum as children build their understanding over time. Children will learn how habitats provide for basic needs of animals and how the living things within a habitat depend on each other. Simple food chains are introduced in this unit and this knowledge will be built upon

later in Year 4 – Ecology. Utilise opportune moments within this unit to develop disciplinary knowledge, for example by talking about how scientists study animals.

This unit contains optional extra lessons covering habitats such as meadows and deep seas. These lessons serve to provide further contextual information for pupils if time allows.

Lesson Sequencing:

This unit will begin by looking at the differences between things that are alive, dead and have never been alive. In lesson two, children will learn what a habitat is and see how it can support an animal to live there. Lesson three will explore habitats further, looking at the differences between rainforests and deserts. This lesson will also introduce children to the idea that animals are adapted to suit their environment. In lesson four, children will learn about underground habitats and how animals have adapted to live there. Lesson five will look at food chains within habitats. In the assessment lesson, children will apply their knowledge to describe a habitat, compare and contrast two habitats, or create a mini-book of information about different habitats.

Misconceptions:

- Fire is alive because it moves, grows and reproduces.
- Plants and seeds are not alive as they do not seem to move.
- Arrows in a food chain mean 'eats' (rather than 'is eaten by').
- The death in one part of a food chain has no effect on the rest of the food chain.
- Wild animals always have food available to them.
- The living thing at the top of the food chain is a predator of all other living things in the food chain.
- Animals in soil (e.g. worms, beetles) breathe by coming to the surface.
- Lions live in the jungle (likely from hearing the phrase – 'the lion is the king of the jungle').
- All deserts are sandy.

Working Scientifically criteria met in this unit:

- using their observations and ideas to suggest answers to questions
- identifying and classifying
- gathering and recording data to help in answering questions
- observing closely, using simple equipment
- asking simple questions and recognising that they can be answered in different ways