

Science | Year 2 – Living things and their habitats| 2021-22

1. Explore and compare the differences between things that are living, dead, and things that have never been alive.
2. Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.
3. Identify and name a variety of plants and animals in their habitats, including micro-habitats.
4. Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food

	Assessment guidance	Key learning	Key vocabulary
Living things and their habitats	Shows understanding of a concept using scientific vocabulary correctly	<p>All objects are either living, dead or have never been alive. Living things are plants (including seeds) and animals. Dead things include dead animals and plants and parts of plants and animals that are no longer attached e.g. leaves and twigs, shells, fur, hair and feathers (this is a simplification but appropriate for year 2 children). An object made of wood is classed as dead. Objects made of rock, metal and plastic have never been alive (again ignoring that plastics are made of fossil fuels).</p> <p>Animals and plants live in a habitat to which they are suited which means that animals have suitable features that help them move and find food and plants have suitable features that help them to grow well. The habitat provides the basic needs of the animals and plants – shelter, food and water. Within a habitat there are different micro-habitats e.g. in a woodland – in the leaf litter, on the bark of trees, on the leaves. These micro-habitats have different conditions e.g. light or dark, damp or dry. These conditions affect what plants and animals live there. The plants and animals in a habitat depend on each other for food and shelter etc. The way that animals obtain their food from plants and other animals can be shown in a food chain.</p>	Living Dead never been alive suited suitable basic needs food food chain shelter move feed names of local habitats e.g. pond, woodland etc., names of micro-habitats e.g. under logs, in bushes etc.
	Applying knowledge in familiar related contexts, including a range of enquiries	<p>Explore the outside environment regularly to find objects that are living, dead and have never lived.</p> <p>Classify objects found in the local environment.</p> <p>Observe animals and plants carefully, drawing and labelling diagrams.</p> <p>Create simple food chains for a familiar local habitat from first hand observation and research.</p> <p>Create simple food chains from information given e.g. in picture books (Gruffalo etc.).</p>	Adaptation Predator Prey

Session sequence – Living things and their habitats

Session	Key learning	Activity
1	Observing and classifying Alive/Once Alive and Never Alive	Children to explore the school grounds with the ipad and tray to gather items. Discuss and sort the items into the 3 classifications: Alive, Once Alive and Never Alive. Recap the term `Never Alive': objects made of rock, metal and plastic have never been alive.
2	To understand key facts about the common snail (alive) - linked to our English Unit `The Snail and the Whale'.	Watch the clip https://www.youtube.com/watch?v=pLCtVGB1mFw and label a factsheet about snails. The foot, shell, 4 tentacles. Discuss interesting facts about only being able to see black and white.
3	Research the Habitat of snails. Discuss its basic needs: shelter and food.	Using laptops, children to research what climates and habitats snails prefer. Discuss what it prefers to eat. Introduce the word `food chain' and predators. Can they find out what animals/birds eat snails?
4	Explore the term `Adaptation'. Recognise that not all animals can live in the same climate and how some animals have adapted to suit their surroundings.	Sort facts about Camels and Polar Bears. (Fur, feet, humps). The water in a camel is retained in its blood stream not humps! The hump stores fat. Camels conserve energy by not sweating like humans do. Discuss how Polar bears, sea lions and penguins are having to continually adapt due to climate change and the ice melting. Thus, not leaving enough space for animals to find anything permanent to reproduce. Use the World Atlas in the class to pinpoint some of the places where animals are being forced to co-exist.
5	Food Chains – Predator / Prey	Using the classic story the Gruffalo, create a basic food chain. Children to understand and begin to use the correct vocabulary: predator / prey.

6	<p>Introduce the 7 Life Processes MRS GREN</p>	<p>Watch https://www.youtube.com/watch?v=RpZUCo_rKLc</p> <p>M = Movement R = Respiration S = Sensitivity (Senses) – Detect our surroundings G = Growth R = Reproduction – Plants (seeds). Animals (babies) E = Excretion N = Nutrition (Plants = Photosynthesis)</p> <p>Design posters with drawings, key vocabulary and examples.</p>												
7	<p>Introduce the term `Micro-habitats'. A microhabitat is a small area which differs somehow from the surrounding habitat. Its unique conditions may be home to unique species that may not be found in the larger region. Unfortunately, some habitats are threatened by pollution, extreme weather, or deforestation.</p> 	<p>Discuss the ppt "The Cautious Caterpillar Minibeast Micro-habitats (Twinkl). A microhabitat has its own temperature and light and its own creatures. Microhabitats are places such as the shady area under a tree or underneath a rock in a stream.</p> <p>Children to create mini fact cards for the minibeasts Micro-habitats (Top Trump).</p> <table border="1" data-bbox="1070 1031 1937 1401"> <tr> <td>A Fallen Log</td> <td>Leaf Litter</td> <td>Grass</td> </tr> <tr> <td>Dark and Cool</td> <td>Warm Damp Dark</td> <td>Shelter Camouflage</td> </tr> <tr> <td>Woodlice Beetle Centipede Wasp</td> <td>Beetle Worm Centipede Snails</td> <td>Caterpillar Ladybird Etc.</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	A Fallen Log	Leaf Litter	Grass	Dark and Cool	Warm Damp Dark	Shelter Camouflage	Woodlice Beetle Centipede Wasp	Beetle Worm Centipede Snails	Caterpillar Ladybird Etc.			
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