

Year 2 – Living things and their habitats	Main Outcomes: <ul style="list-style-type: none"> • Explore and compare the differences between things that are living, dead, and things that have never been alive. • 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. • Identify and name a variety of plants and animals in their habitats, including microhabitats. • 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. 	Focus: Science - biology
--	---	---------------------------------

What should I already know? <ul style="list-style-type: none"> • Not studied until year 2.
What I will do <p>I will have weekly or blocked science lessons. In lessons, I will be taught a skill and I will gain knowledge and understanding through the process of scientific enquiry (observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing, (controlled investigations); and researching using secondary sources).</p> <p><u>Possible lines of enquiry</u></p> <ul style="list-style-type: none"> • Sort and classify things according to whether they are living, dead or were never alive. • Record findings using charts. • Describe decisions of where to place things, exploring questions for example: 'Is a flame alive? Is a deciduous tree dead in winter?' • Talk about ways of answering questions. • Construct a simple food chain that includes humans (e.g. grass, cow, human). • Describe the conditions in different habitats and microhabitats (under log, on stony path, under bushes). • Research how the conditions affect the number and type(s) of plants and animals that live there.

Vocabulary	Meaning
carnivore	an animal that eats meat
depend	if you depend on someone or something, you need them in order to be able to survive physically
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, an octopus
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
offspring	a person's children or an animal's young
omnivore	a person or animal that eats all kinds of food, including both meat and plants
plant	a living thing that grows in the earth and has a stem, leaves, and roots
senses	the abilities humans have to detect taste, smell, sound, sight and touch
source	where something comes from
Sun	a big yellow star in the sky that creates heat and light; plants depend on the Sun (they turn its energy into food)
survive	to remain alive and healthy
vegetation	plants , trees and flowers

Resources <p>Hamilton Science planning: Living Things and Their Habitats (all planning also saved on SharePoint). https://www.hamilton-trust.org.uk/science/year-2-science/living-things-and-their-habitats-habitats/ https://www.hamilton-trust.org.uk/science/year-2-science/living-things-and-their-habitats-gardens-and-allotments/</p>
--

Knowledge to understand	
How can we work out what's alive, not alive (dead) or has never lived? Is it sometimes difficult to tell?	<p>Everything that is alive does all of these 7 things:</p> <ul style="list-style-type: none"> • moves • makes new versions of itself (offspring) • grows bigger or older • senses the world around them • gets rid of waste • needs food • uses oxygen to turn food into energy <p>When something stops doing these 7 things, it is dead. If something has never done these 7 things, then it has never lived.</p>
What is a habitat ?	<p>The place where a plant or animal lives (survives) is called a habitat. Living things in a habitat depend on each other. Plants can provide food and shelter for animals. Animals help plants by spreading their pollen or seeds. There are many different habitats around the world, such as woodlands, oceans and deserts.</p>
What is a microhabitat ?	<p>An extremely small habitat, such as a tree stump, under stones, in grass, under fallen leaves (leaf litter) and in the soil. Minibeasts that can be found there include worms, snails, ants, centipedes, millipedes, and butterflies; they help to keep the microhabitat healthy. Minibeasts are able to survive in their habitats because they can find the things they need to survive there, such as food and water. For example, caterpillars can survive on leaves as they give them food (that is, caterpillars are suited to their microhabitats).</p>
What is a food chain ?	<p>Animals and plants depend on each other to survive. For example, worms depend on plants because they feed on dead leaves, but plants depend on worms who make the soil healthy by digging holes and allowing air in. Birds also need worms because they eat them. Worms are a source of food for birds. This called a food chain. If there were no worms, there would be fewer birds as there would be more competition for food. The soil would not be as healthy without worms. All living things (or things that were once living) have a part to play in food chains. Without them, other animals and plants may not be able to survive. Food chains involve the Sun, vegetation, herbivores, carnivores and omnivores. The Sun's energy travels through a food chain and then back into the ground.</p>

Skills to learn
<ul style="list-style-type: none"> ➤ asking simple questions and recognising that they can be answered in different ways ➤ observing closely, using simple equipment ➤ performing simple tests ➤ identifying and classifying ➤ using their observations and ideas to suggest answers to questions ➤ gathering and recording data to help in answering questions ➤ drawing diagrams to explain something <p>Cross-curricular (maths and DT)</p> <ul style="list-style-type: none"> ➤ comparing, describing and solving practical problems (including using hoops as Venn diagrams for sorting) ➤ sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening ➤ select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics ➤ evaluate ideas and products against design criteria
Equipment to become familiar with
<p>Magnifying glasses</p> <p>Cameras</p> <p>Torches</p> <p>Bug collecting pots with magnifying lids</p>

Evidence of Learning
<p>Science books</p> <p>Photos</p> <p>Videos</p> <p>Pupil conferencing</p> <p>Teaching and learning observations</p> <p>Learning walks</p> <p>Data analysis</p>

How will I know what I've learnt?
<p>See KS1 teacher assessment exemplification for science</p> <p>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/763062/2018_key_stage_1_teacher_assessment_exemplification_science.pdf</p> <p>See also Hamilton Science_Assessment_Y2 (saved in planning folder on Sharepoint).</p> <p>KS1 science quizzes:</p> <p>https://gcequiz.com/quiz/ks1-science-quizzes</p> <p>https://www.woodendprimaryschool.com/year-2/</p>