

Science Unit: Living things and habitats	
Early Learning Goals (Year R)	<p><u>Early Learning Goal: The Natural World</u> Children at the expected level of development will:</p> <ul style="list-style-type: none"> - Explore the natural world around them, making observations and drawing pictures of animals and plants; - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.
Key Stage 1	<p>The principal focus of science teaching in key stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly constructed world around them. They should be encouraged to be curious and ask questions about what they notice. They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Most of the learning about science should be done through the use of first-hand practical experiences, but there should also be some use of appropriate secondary sources, such as books, photographs and videos.</p> <p>‘Working scientifically’ is described separately in the programme of study, but must always be taught through and clearly related to the teaching of substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.</p> <p>Pupils should read and spell scientific vocabulary at a level consistent with their increasing word-reading and spelling knowledge at key stage 1.</p>
Working scientifically	<p>During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <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

	Links to learning in Year R	Year 1	Year 2
Key knowledge	<ul style="list-style-type: none"> • TO comment and ask questions about aspects of their familiar world, such as the place where they live, or the natural world. • To talk about some of the things they have observed, such as plants, animals, natural or found objects. • To talk about why things happen and how things work. • To have an understanding of growth, decay and changes over time. • To show care and concern for living things and the environment. • To know about similarities and differences in relation to places, objects, materials and living things. They talk about features of their own immediate environment and how environments might vary from one to another. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • identify and name a variety of common wild and garden plants, including deciduous and evergreen trees • identify and describe the basic structure of a variety of common flowering plants, including trees • identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals • identify and name variety of common animals that are carnivores, herbivores and omnivores 	<p>Pupils should be taught to:</p> <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 <p>Taught in Spring 2</p>

Key Skills/ Key Vocabulary in Yr 2 Living Things & their habitats

- Pupils should use the local environment throughout the year to explore and answer questions about plants growing in their habitat. Where possible, they should **observe** the growth of flowers and vegetables that they have planted.
- Pupils might work scientifically by: **observing** closely, perhaps using magnifying glasses, and **comparing** and **contrasting** familiar plants; **describing** how they were able to identify and group them, and **drawing diagrams** showing the parts of different plants including trees.
- Pupils might **keep records** of how plants have changed over time, for example, the leaves falling off trees and buds opening; and compare and contrast what they have found out about different plants.

- be able to describe and compare the structure of a variety of common animals
- identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.
- Pupils should use the local environment throughout the year to explore and answer questions about animals in their habitat. They should understand how to take care of animals taken from their local environment and the need to return them safely after study.
Pupils might work scientifically by: using their observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them; grouping animals according to what they eat; and using their senses to compare different textures, sounds and smells.

- Pupils should be introduced to idea that all living things have certain characteristics that are essential for keeping them alive & healthy. They should **raise and answer** questions that help them to become familiar with the life processes that are common to all living things. Pupils should be introduced to the terms '**habitat**' (a natural environment or home of a variety of plants and animals) and '**microhabitat**' (a very small habitat, for example for woodlice under stones, logs or leaf litter). They should **raise and answer questions** about the local environment that help them to identify and study a variety of plants and animals within their habitat and observe how living things depend on each other, for example, plants serving as a source of food and **shelter** for animals. Pupils should **compare** animals in familiar habitats with animals found in less familiar habitats, for example, on the **seashore/ beach**, in **woodland**, in the **ocean**, in the **rainforest**.
- Pupils might work scientifically by: **sorting and classifying** things according to whether they are living, dead or were never alive, and recording their findings using charts. They should **describe** how they decided where to place things, exploring questions like: '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 microhabitats (under log, on stony path, under bushes); and find out how the conditions affect the number and type(s) of plants and animals that live there.
- Review of year 1 vocabulary from plants and animal units – perhaps through lesson starters, or during other opportunities during the day (e.g. guided reading / register)
- **New vocab:** damp, cool, hot, humid, moss, rocks, stones, pebbles

		<ul style="list-style-type: none">• common names of flowers, daisy, buttercup, sunflower, daffodil, snowdrop, bluebell, rose, tulip• deciduous trees: oak, beech, birch, sycamore, ash, (alder, elder, rowan, hazel, field maple, hawthorn, rowan)• evergreen trees: holly tree, pine tree(s)• plant and tree structures including leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem• Fish, salmon, cod, tuna, goldfish, carp, shark• amphibians, frogs & toads, newts & salamanders & newts• reptiles, snakes, lizards, ghekos, aligators & crocodiles• birds, goose, swan, duck, black bird, pigeon, robin, sparrow, crow, magpie, owl, (birds of prey – peregrine falcon, buzzard, goshawk)• mammals, humans, cat, dog, hamster, gerbil, cow, sheep, pig, goat, lions, tigers, leopards, bears, whales, dolphins• carnivores, herbivores, omnivores• animal body parts: body, paw, leg, talon, wing, fin, beak, webbed feet• human body parts: head, neck, shoulders, legs, (shin, calf, thigh) arms, (wrist, elbow) chest, bottom, hands, fingers, feet, toe, heel, ankle, face, ears, eyes, nose, mouth, cheeks, chin	
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Theme/ Enrichment	Enrichment: Forest School –	All about Me – Autumn term London and Beyond (The Great fire of London) Children will extend their learning to understand that we live in Surrey, England. What plants live in England? What plants won't we find in England? Or are we less likely to find naturally? –Spring 2 Enrichment: Forest School –	Magic, Mystery and Mayhem! –Spring 2 Enrichment: Forest School – what to wear for all weathers.
Links to other subjects	Science – learning about Seasons through the year	Science – learning about Seasons through the year Geography - links to learning about different countries – what plants would we expect to find there – Autumn 1 Art: Flower painting by Marianne North –Summer 1	Geography - links to learning about different countries – what plants would we expect to find there? –Summer 1 and Summer 2 PSHE – Changing Me - Summer 2 ICT- Animals under the sea –Autumn 1