

<u>St James' Church of England Primary School</u> <u>Key Learning in Science – Environment</u>



Key Learning: Environment (Living Things and Their Habitats)				
Key Learning	Notes and Guidance	Working Scientifically		
	(Non-statutory)	(Featured skills)		
Pupils should be taught to:		Pupils might work scientifically by:		
KS1: Year 2 - Living things and their habitats	KS1: Year 2 - Living things and their	KS1: Year 2 - Living things and their habitats		
Explore and compare the differences between	habitats	 Sorting and classifying things according to 		
things that are living, dead, and things that	Pupils should be introduced to the idea that	whether they are living, dead or were never		
have never been alive.	all living things have certain characteristics	alive, and recording their findings using charts.		
Identify that most living things live in habitats	that are essential for keeping them alive	 Describing how they decided where to place 		
to which they are suited and describe how	and healthy.	things.		
different habitats provide for the basic needs of	They should raise and answer questions	• Exploring questions such as: 'Is a flame alive? Is a		
different kinds of animals and plants, and how	that help them to become familiar with the	deciduous tree dead in winter?		
they depend on each other.	life processes that are common to all living	• Talking about ways of answering their questions.		
 Identify and name a variety of plants and 	things.	• Constructing a simple food chain that includes		
animals in their habitats, including micro-	Pupils should be introduced to the terms	humans (e.g. grass, cow, human).		
habitats.	'habitat' (a natural environment or home of	• Describing the conditions in different habitats		
Describe how animals obtain their food from	a variety of plants and animals) and 'micro-	and micro-habitats (under log, on stony path,		
plants and other animals, using the idea of a	habitat' (a very small habitat, e.g. for	under bushes).		
simple food chain, and identify and name	woodlice under stones, logs)	• Finding out how the conditions affect the		
different sources of food.	They should raise and answer questions	number and type(s) of plants and animals that		
Different kinds of plants and animals live in	about the local environment that help them	live there.		
different kinds of places.	to identify and study a variety of plants and			
Inere are different kinds of habitat which need to be served for	animals within their habitat and observe	(see also Year 2 – Animals, 'Survival and Growth' as		
to be cared for.	now inving triings depend on each other, jor	this could be done in the same term as this Living		
Habitats provide the preferred conditions for the animals/plants that live there (compare local	and shalter for animals	Things in their Habitat' unit)		
habitats and loss familiar examples)	und sheller jor unimuls.			
nabitats and less familiar examples).	habitats with animals found in loss familiar			
(soo also Voar 2 - Animals (Survival and Growth' as	habitats for example on the seashore in			
this could be done in the same term as this Living	woodland in the ocean			
Things in their Habitat' unit)				

 LKS2: Year 4 - Living things and their habitats recognise that living things can be grouped in a variety of ways explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment construct and interpret a variety of food chains, identifying producers, predators and prey (NB: this point also in 'Animals – Teeth, eating and digestion') Recognise that environments can change and that this can sometimes pose dangers to living things. Use and make identification keys for plants and animals. 	LKS2: Year 4 - Living things and their habitats Pupils should use the local environment throughout the year to raise and answer questions that help them to identify and study plants and animals in their habitat. They should identify how the habitat changes throughout the year. Pupils should explore possible ways of grouping a wide selection of living things that include animals and flowering plants and non- flowering plants, Pupils could begin to put vertebrate animals into groups such as fish, amphibians, reptiles, birds, and mammals; and invertebrates into snails and slugs, worms, spiders, and insects. Note: Plants can be grouped into categories such as flowering plants, such as ferns and mosses. Pupils should explore examples of human impact (both positive and negative) on environments, for example, the positive effects of nature reserves, ecologically planned parks or garden ponds, and the negative effects of population and development, litter or deforestation.	 UKS2: Year 4 - Living things and their habitats Using and making simple guides or keys [sorting, grouping, comparing, classifying] to explore and identify local plants and animals. Making a guide [sorting, grouping, comparing, classifying] to local living things. Raising and answering questions based on their observations of animals and what they have found out about other animals that they have researched.
Key Learning (continued)	Notes and Guidance (continued) (Non-statutory)	(Featured skills)
 UKS2: Year 5 - Living things and their habitats Observing life cycles Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. Describe the life process of reproduction in some plants and animals. 	UKS2: Year 5 - Living things and their habitats Pupils should study and raise questions about their local environment throughout the year. They should observe life-cycle changes in a variety of living things, for example plants in the vegetable garden or	 UKS2: Year 5 - Living things and their habitats Observing and comparing the life cycles of plants and animals in their local environment with other plants and animals around the world (in the rainforest, in the oceans, in desert areas and in prehistoric times).

 Plants produce pollen from the stamen (male part of a plant) which is transferred to the stigma and then the ovary (female parts of the plant). Fertilisation occurs in the ovary of the flower. Seeds are formed as a result of fertilisation. (NB in the original version of Inspiring Science plant lifecycles were identified in the 'PLANTS' units. In the updated version we have mirrored the NC2014 and put plant lifecycles here with 'Living Things and their Habitats'. NB Pupils will have been introduced to pollination and seed dispersal in YR3). 	flower border, and animals in the local environment. They should find out about the work of naturalists and animal behaviourists, for example, David Attenborough and Jane Goodall. Pupils should find out about different types of reproduction, including sexual and asexual reproduction in plants and sexual reproduction in animals.	 Asking pertinent questions and suggesting reasons for similarities & differences. They might try to grow new plants from different parts of the parent plant, for example, seeds, stem and root cuttings, tubers, bulbs. Observe changes in an animal over a period of time (for example, by hatching and rearing chicks). Comparing how different animals reproduce and grow.
UKS2: Year 6 - Living things and their habitats	UKS2: Year 6 - Living things and their	UKS2: Year 6 - Living things and their habitats
Classification	habitats	Using classification systems and keys to identify
Describe how living things are classified into	Pupils should build on their learning about	some animals and plants in the immediate
broad groups according to common observable	grouping living things in Year 4 by looking	environment.
characteristics and based on similarities and	at the classification system in more detail.	Researching unfamiliar animals and plants from
differences, including micro-organisms, plants	They should be introduced to the idea that	a broad range of other habitats and decide
and animals.	broad groupings, such as micro-organisms,	where they belong in the classification system.
Give reasons for classifying plants and animals	plants and animals can be subdivided.	
based on specific characteristics.	Through direct observations where possible,	
 Living things can be grouped into micro- 	they should classify animals into commonly	
organisms, plants and animals.	found invertebrates (e.g. insects, spiders,	
• Vertebrates can be grouped as fish, amphibians,	snails, worms) and vertebrates (fish,	
reptiles, birds and mammals.	amphibians, reptiles, birds and mammals).	
• Invertebrates can be grouped as snails and slugs,	They should discuss reasons why living	
worms, spiders and insects.	things are placed in one group and not	
• Plants can be grouped as flowering plants (incl.	another.	
trees and grasses) and non-flowering plants	Pupils might find out about the significance	
(such as ferns and mosses).	of the work of scientists such as Carl	
	Linnaeus, a pioneer of classification.	