



Topic Vocabulary, Skills and Knowledge

Subject: Science

Year: 2

Curriculum leads: Mrs Barlow / Mrs Wakefield

Vocabulary

I can understand and use these words:

carnivore	herbivore	omnivore	alive	dead
never lived	food chain	habitat	microhabitat	need
want	animal	human	plant	life cycle
baby	child	teenager	adult	toddler
elderly	egg	young	offspring	want
need	shelter	warmth	exercise	survive
hygiene	balanced diet	meat	vegetables	fruit
vitamins	minerals	sugar	fats	carbohydrates
protein	dairy	object	material	property
physical	soft	hard	stretchy	stiff
shiny	dull	rough	smooth	bendy
waterproof	absorbent	opaque	transparent	suitable
unsuitable	squash	bend	twist	stretch
plant	roots	leaf	leaves	stem
flower	petals	fruit	seed	germinate
pollinate	seed dispersal	temperature	soil/compost	

Working Scientifically (Yr 2 with increasing independence)

Skills: I can:

Ask simple questions.	Observe closely, using a magnifying glass and thermometer.	Perform simple tests.
Identify and classify by naming objects, sorting into groups, and explaining my grouping.	Use my observations and ideas to suggest answers to questions.	Gather and record data, completing recording sheet with more independence

Living things and their habitats

Skills: I can:	
Identify things that are living, dead and never lived.	Describe how a specific habitat provides for the basic needs of things living there (plants and animals).
Identify and name plants and animals in a range of habitats, including microhabitats. I can match living things to their habitat.	Describe how animals find their food.
Name some different sources of food for animals.	Explain a simple food chain.

Knowledge I know:	
That there are different habitats.	What the main habitats in the world are, including microhabitats. (See list below)
How animals are suited to their habitat.	What a food chain is.
That different animals eat different types of food.	

Habitats: Rainforest, (temperate) forest / woodland, desert, polar regions, African Savannah / grasslands, ocean	Microhabitats: grass, under a log, leaf litter, under stones / in paving, decomposing fruit, in flowers, soil
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Living things and their habitats (Greater Depth)

Sc2/2.1a explore and compare the differences between things that are living, dead, and things that have never been alive	Sc2/2.1b 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	Sc2/2.1c identify and name a variety of plants and animals in their habitats, including microhabitats	Sc2/2.1d 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>I can explain the typical characteristics of something that is living, dead and has never been alive</p> <p>I am aware that living things have life processes and I can name some of these (MRS GREEN: Movement, Respiration, Sensitivity, Growth, Reproduction, Excretion, Nutrition)</p>	<p>I can explain how animals / plants are suited to their habitat (e.g. polar bears have thick waterproof fur so they stay warm and dry in the icy polar habitat)</p> <p>I can describe what a particular plant or animal needs to survive and link this to the habitat where the animal or plant lives</p> <p>I know that plants and animals depend on their habitat to survive and I can give examples of this</p>	<p>I can name a diverse range of plants and animals found in a range of habitats</p>	<p>I can confidently describe an animal as a carnivore, omnivore or herbivore based on what I know they eat</p> <p>I can explain why a food chain always starts with a plant</p> <p>I can explain why a food chain always starts with a plant</p>

Animals including humans

Skills: I can:	
Order and describe the basic stages in a life cycle for a variety of animals, including humans.	Describe what animals and humans need to survive
Describe why exercise, a balanced diet and good hygiene are important for humans.	

Knowledge I know:	
All living things are born, grow and go through a life cycle.	What animals need to survive.
How to be a healthy human (exercise, diet and hygiene).	

Animals including humans (Greater Depth)

Sc2/2.3a notice that animals, including humans, have offspring which grow into adults	Sc2/2.3b find out about and describe the basic needs of animals, including humans, for survival (water, food and air)	Sc2/2.3c describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.
<p>I can name a wider variety of animals and their offspring</p> <p>I know that some animals give birth to live young and some lay eggs</p> <p>I know that different animals live for different lengths of time (e.g. butterfly, dog, human)</p>	<p>I can explain why an animal needs water, food and air and what will happen if they do not have these basic needs met</p> <p>I know that animals need shelter</p> <p>I can talk about what might happen to animals in the wild if they do not have food/water/shelter (endangered / extinct)</p>	<p>I can explain why exercise helps to keep a human healthy</p> <p>I have some understanding of the term 'balanced diet' and can talk about some of the food groups</p> <p>I know that eating too much of a particular food type can be unhealthy</p> <p>I can explain the effect of poor hygiene on the human body (tooth decay, stomach upset, disease)</p>



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Plants

Skills: I can:	
describe how seeds and bulbs grow into plants (including the plant life cycle).	describe what plants need in order to grow and stay healthy (water, light & suitable temperature).
grow a plant and talk about what it needs to be healthy.	

Knowledge I know:	
the life cycle of a plant.	what a plant needs to survive (water, light, warmth, nutrients from the soil)

Plants (Greater Depth)

Sc2/2.2a observe and describe how seeds and bulbs grow into mature plants	Sc2/2.2b find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.
I know that mature plants have seeds and that the seeds will make more plants	I can carry out an investigation and use the results to identify /explain what plants need to survive
I can describe the life cycle of a plant using scientific terms: germination, pollination, seed dispersal	I can ask questions for an investigation about other conditions that affect plant growth (e.g. plant food)
I know the life cycle of a selection of plants & trees (e.g. sunflower, strawberry plant, beans, oak tree)	
I can identify a variety of plants that grow from bulbs (e.g. daffodil, tulip, snowdrop) and seeds (e.g. lettuce, grass, radish, tomatoes, beans)	

Uses of Everyday Materials

Skills: I can:	
Name a variety of objects and the material it is made from (wood, metal, fabric, glass, plastic) - recap from Year 1	Identify / sort objects according to their material
Describe the physical properties of materials (see below) - recap from Year 1	Group materials (objects) based on their physical properties
Suggest why a material might or might not be used for a specific job.	Explore how objects can be changed by squashing, bending, twisting and stretching.

Knowledge I know:	
The different materials including wood, plastic, glass, metal and fabric.	The meaning of the vocabulary to describe physical properties of materials.
What a material can be used for.	

Properties of materials: bendy / not bendy (rigid) smooth / rough see-through / not see-through (transparent / opaque) soft / hard waterproof absorbent shiny / dull stretchy

Uses of Everyday Materials (Greater Depth)

Sc2/3.1a identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for different uses	Sc2/3.1c find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching
I recognise that some objects can be made out of a variety of materials (e.g. a spoon can be plastic, metal or wooden)	I know that it is difficult to change the shape of many solid objects and can name some of these objects (e.g. coin, metal bar, wooden table, glass marble)
I can compare two (or more) materials and explain which I think would be best to make a specific object (e.g. chair)	