

Uplands Manor Primary School - Science Unit Organiser

Science Topic:	Living Things and Their Habitats		Year 2		
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What? (Key Vocabulary)	
Spelling	Definition/Sentence
Cells	The basic part of all living things
Underside	Underneath or bottom of something
Webbed	Where fingers or toes are connected by skin
Excess	More than is needed
Environment	The conditions around something

What? (Key Knowledge)	
Is it alive?	
Things can be split into three groups:	<ul style="list-style-type: none"> • Things that are alive • Things that were alive but are now dead • Things that have never lived
Things that are alive	<ul style="list-style-type: none"> • Are made from cells and show signs of life (see below)
Things that are dead	<ul style="list-style-type: none"> • Are made from cells • A wooden table used to be alive as a tree
Things that never lived	<ul style="list-style-type: none"> • These are not made from cells • For example, a drain cover is made from particles of metal

Diagrams and Symbols
<p>Animals get their food from plants and other animals. A food chain shows how energy from food is passed along. Only green plants make their own food, so every food chain starts with a green plant.</p> <div style="text-align: center;"> <pre> graph LR A[Grass] --> B[Grasshopper] B --> C[Mouse] C --> D[Owl] </pre> <p>Grass → Grasshopper → Mouse → Owl</p> </div> <p>Here the Grass has made its own food. The grasshopper gets energy by eating the grass. The mouse gets energy by eating the grasshopper and the owl gets its energy by eating the mouse.</p>

How to tell if it is alive. Living things can:	
Move	<ul style="list-style-type: none"> • For example, animals can run, birds can fly and flowers turn towards light
Reproduce	<ul style="list-style-type: none"> • This is when living things have offspring • For example, animals have babies and plants have seeds which turn into new plants
Nutrition	<ul style="list-style-type: none"> • This is where food is used to provide energy • For example, humans get energy from food. Animals eat plants or other animals • Green plants make their own food
Growth	<ul style="list-style-type: none"> • This is when things get bigger/older • For example, babies grow into adults • Seedlings grow into bigger plants

The arrow on a food chain means 'is food for'
<p>If one element of the food chain changes, this can impact on the rest of the chain. For example: If a disease killed all of the grasshoppers...</p> <ul style="list-style-type: none"> • The grass might grow a lot more as grasshoppers wouldn't be eating it • Mice would have to find something else to eat (like corn) which would reduce the amount of corn in fields • Pigeons may suffer as there is less corn available to eat

Habitats	
What is a habitat?	Most living things live in an environment they are suited to. This is their habitat.
Types of habitats	Habitats can be very different. For example they can be: <ul style="list-style-type: none"> • Hot or cold • Wet or dry • On the ground or up high
Choosing the right habitat	Animals live in habitats that suit them best. <ul style="list-style-type: none"> • For example, a fish can breathe in water and can swim well so it lives in water • A worm has brown skin, bristles on its underside to grip and a pointed head (all of these mean that the soil is a good habitat for it to live in)

Recommended Experiments	
A minimum of two experiments should take place during this unit of work with one final written outcome linked to one of the scientific enquiry skills and approaches used.	
	Investigating habitats in the school environment (such as hedgerows and trees) - investigate micro-habitats such as under stones and under logs
	Investigating what habitats animals like using 'choice chambers'
	Constructing food chains using given plants and animals and explain reasoning for the order
	Investigating the range of impacts should one aspect of the food chain die out

Examples of animals and plants in their habitats	
Cold habitat	<ul style="list-style-type: none"> • Polar bear - thick white fur, to keep warm and camouflaged in the snow
Hot habitat	<ul style="list-style-type: none"> • The desert rat - large ears to help lose excess body heat, good hearing and sight in the dark so can hunt at night when the temperature is cooler
Dry habitat	<ul style="list-style-type: none"> • The cactus - long roots find water that is deep in the ground, thin needle leaves don't lose water
Wet habitat	<ul style="list-style-type: none"> • The otter - eyes and nostrils can close underwater, feet are webbed to help move in the water

Builds on: learning in Year 1 - Autumn - Unit: Animals, including humans and Plants	Learning links	Leads to: learning in Year 3 - Autumn 2 - Unit: Living Things and Their Habitats
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