



Longwick C of E Combined School Year 2 Science Curriculum overview

Year 2 - Uses of everyday materials

Lesson Intention	National Curriculum Reference	Scientific Enquiry Covered	Rocket Words Covered	Resources Needed
Identify different materials and their uses	Identify and compare the suitability of a variety of everyday materials	Using their observations and ideas to suggest answers to questions	material property suitable object brick	Objects from around the classroom.
Understand how to select the right materials to build a bridge	Identify and compare the suitability of a variety of everyday materials	Performing simple tests	bridge triangle obstacle structure construction	Two books, a range of weights, variety of materials to create a bridge - aluminium foil, card, paper, wood, string, masking tape etc.
Explore and test the stretchiness of materials	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	Gathering and recording data to help in answering questions	stretchy elastic floppy hinder limit	A variety of materials of different stretchiness (e.g. cotton, wool, nylon...), tape measure or ruler; scissors, marbles, yoghurt carton, string, paper clips.
Understand that materials can change their shape by twisting, bending, squashing or stretching	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	Using their observations and ideas to suggest answers to questions	bend twist squash stretch force	A variety of materials which can be twisted, bent, squashed or stretched (e.g. plasticine, wool, foil...).
Find out about Charles Macintosh and explore how materials are suitable for different purposes	Identify and compare the suitability of a variety of everyday materials	Performing simple tests	mackintosh protective fluorescent safety waterproof	Four different sheets of fabric (tissue, tinfoil, clingfilm, plastic, wool fabric, nylon), beaker, elastic band, one tray per table, syringe per group, water.
Discover which materials change shape when making a road with John McAdam	Identify and compare the suitability of a variety of everyday materials	Performing simple tests	John McAdam merchant bound highway road	Chocolate, microwave, clingfilm, raisins, digestive biscuits crushed to various sizes, heatproof tray.

Year 2 - Living things and their habitats

Lesson Intention	National Curriculum Reference	Scientific Enquiry Covered	Rocket Words Covered	Resources Needed
Explore and compare the differences between things that are living, dead, and things that have never been alive	Explore and compare the differences between things that are living, dead, and things that have never been alive	Identifying and classifying	senses nutrition reproduce excrete respire	Equipment for a classification walk: clipboards, pencils.
Identify and name a variety of plants and animals in a microhabitat	Identify and name a variety of plants and animals in their habitats, including microhabitats	Observing closely, using simple equipment	habitat microhabitat fungi survive shelter	Equipment for a nature hunt: clip boards, pencils. Photographs from the handout if not using the outdoors.
Design a suitable microhabitat where living things could survive	Identify and name a variety of plants and animals in their habitats, including microhabitats	Using their observations and ideas to suggest answers to questions	antennae suitable condition colony insect	If creating a real microhabitat outdoors, a selection of natural materials for children to create a 'bug hotel', or modelling resources if creating a model microhabitat.
Find out what animals eat to survive in their habitats	Describe how animals obtain their food from plants and other animals	Asking simple questions and recognising that they can be answered in different ways Gathering and recording data to help in answering questions	producer consumer herbivore carnivore omnivore	Research tools, e.g. internet and books.
Understand a food chain	Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain	Using their observations and ideas to suggest answers to questions	food chain life cycle nutrients rot caterpillar	Card/paper, scissors, sticky tape, coloured pens/pencils, glue stick. You may prefer to provide the learners with animal pictures to cut out instead.
Understand the journey food makes from the farm to the supermarket	Identify and name different sources of food	Using their observations and ideas to suggest answers to questions	automated frozen food forklift truck refrigerated lorry canned	Scissors, glue, colouring pens/pencils.

Year 2 – Living Things and their habitats – Habitats from around the world				
Lesson Intention	National Curriculum Reference	Scientific Enquiry Covered	Rocket Words Covered	Resources Needed
Learn about habitats	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	Identifying and classifying Using their observations and ideas to suggest answers to questions	habitat microhabitat organism environment mate	Glue, scissors.
Appreciate that environments are constantly changing	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	Gathering and recording data to help in answering questions	rainforest moisture extinct climate endangered	Clipboard, pen/pencil, *May require permissions if choosing to walk outside school premises
Explore the rainforest and its problems	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	Using their observations and ideas to suggest answers to questions	biodiversity deforestation poaching pollution rainforest	Books/access to the internet for research, colouring pens/pencils, coloured paper, iPads to film videos (optional)
Describe life in the ocean	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	Asking simple questions and recognising that they can be answered in different ways	plankton ocean ecosystem coral reef trench	Materials to create a collage, paper, paints, corrugated card, coloured card, glue, scissors, sticky tack, pens, pencils
Discover the Arctic and Antarctic habitat	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	Identifying and classifying	Antarctic Arctic caribou narwhal tundra	Books/access to the internet for research
Create a model of a habitat	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	Using their observations and ideas to suggest answers to questions	earthworm desert lizard cactus pond	Shoebox/ or cardboard box, craft materials, toy animals,

Year 2 - Animals, including humans 1 - Health & survival

Lesson Intention	National Curriculum Reference	Scientific Enquiry Covered	Rocket Words Covered	Resources Needed
Describe the needs of animals for survival	Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)	Using their observations and ideas to suggest answers to questions	survival shelter nutrition oxygen essential	Class presentation, pen, pencil.
Describe the needs of humans, for survival	Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)	Using their observations and ideas to suggest answers to questions	vital non-essential survive grow healthy	Class presentation, pen, pencil, scissors, glue.
Explore the importance of eating the right food	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	Identifying and classifying	protein carbohydrate dairy vitamins calcium fat	Class presentation, pen, pencil, glue.
Describe what a healthy, balanced diet looks like	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	Using their observations and ideas to suggest answers to questions	balanced diet nutrients fresh food pre-cooked processed food	Class presentation, pen, pencil, glue, paper plates craft materials for making food, e.g. tissue paper, card, coloured paper, pipe cleaners, playdoh.
Investigate the impact of exercise on our bodies	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	Performing simple tests Using their observations and ideas to suggest answers to questions	exercise strength flexibility balance coordination	Class presentation, pen, pencil, stopwatch, bean bags, small sized balls, medium sized balls, large balls.
Investigate the importance of hygiene	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	Performing simple tests	hygiene prevent germs bacteria virus	Class presentation, pen, pencil, shallow bowl or plate, water, pepper, dish soap.

Year 2 - Animals, including humans 2 - Life cycles

Lesson Intention	National Curriculum Reference	Scientific Enquiry Covered	Rocket Words Covered	Resources Needed
Order the stages of the human life cycle	Notice that animals, including humans, have offspring which grow into adults	Identifying and classifying	life cycle grow survive independent adult	Class presentation, pen, pencil, scissors, glue.
Describe the stages of a human life cycle	Notice that animals, including humans, have offspring which grow into adults	Identifying and classifying	foetus womb helpless toddler develop	Class presentation, handout.
Identify the offspring and parent of an animal	Notice that animals, including humans, have offspring which grow into adults	Using their observations and ideas to suggest answers to questions	offspring inherit gene resemble differences	Class presentation, scissors, glue, pen, pencil.
Explore the life cycle of a chicken	Notice that animals, including humans, have offspring which grow into adults	Gathering and recording data to help in answering questions	reproduction hatchling chick bar chart predict	Chicks & data, if available. If you have not hatch chicks, use the handout for chick data, squared paper.
Describe the life cycle of a butterfly	Notice that animals, including humans, have offspring which grow into adults	Asking simple questions and recognise that they can be answered in different ways	caterpillar transformation larva chrysalis metamorphosis	Class presentation, resources to enable the children to create a model of a butterfly's life cycle; this may include plasticine, a selection of card or card board, tissue paper, paints/colouring pens, scissors, glue, pipe cleaners.
Explore the life cycle of a frog	Notice that animals, including humans, have offspring which grow into adults	Using their observations and ideas to suggest answers to questions	frog amphibian frogspawn tadpole froglet	Class presentation, pencils, colouring pencils.