

Science Progression Grid



	F1	F2	Y1	Y2
Skills	<p>Ask questions Demonstrate curiosity about the world around them.</p> <p>Make predictions With support & prompting talk about what they think might happen based on their own experiences.</p> <p>Decide how to carry out an enquiry Respond to prompts to say what happened to objects, living things or events.</p> <p>Make measurements Use senses and simple equipment to explore the world around them, e.g. binoculars, magnifying glasses and magnets.</p> <p>Record data Begin to record their ideas e.g. Contribute to a drawing, photograph or labels modelled by an adult.</p> <p>Present data With support & prompting talk to an adult about what has been found/found out.</p>	<p>Ask questions Demonstrate curiosity about the world around them.</p> <p>Make predictions With support & prompting talk about what they think might happen based on their own experiences.</p> <p>Decide how to carry out an enquiry Perform simple tests to explore a question or idea suggested to them, with support.</p> <p>Make measurements Observe objects, living things, events and the world around them closely, using their senses and simple equipment. With support, begin to make measurements using non-standard units of measure.</p> <p>Record data Begin to record their ideas e.g. draw or photograph evidence and label with support.</p> <p>Present data</p>	<p>Ask questions Ask simple questions stimulated by their exploration of their world.</p> <p>Make predictions Respond to suggestions to connect what has been observed with possible further actions or observations.</p> <p>Decide how to carry out an enquiry Perform simple tests to explore a question or idea suggested to them.</p> <p>Make measurements Observe objects, living things, events and the world around them closely, using their senses and simple equipment. Make measurements using non-standard units of measure.</p> <p>Record data Present findings in simple templates provided for them or orally. Draw or photograph evidence and label.</p> <p>Present data Use simple templates provided to help them answer questions.</p>	<p>Ask questions Ask simple questions about their experiences and observations and with support use these observations to suggest ways to discover an answer or solve a problem, recognising that some can be answered in a variety of ways.</p> <p>Make predictions Use their observations and ideas to make predictions. Use understanding of what has been observed or own experience to predict outcomes of further actions or observations.</p> <p>Decide how to carry out an enquiry Identify things to measure or observe that are relevant to the questions or ideas they are investigating using a simple test. Suggest a practical way of how to find things out, or collect data to answer a question or idea they are investigating</p> <p>Make measurements Observe closely and use equipment provided for observation and measuring correctly. Make measurements using non-standard and standard units of measure.</p> <p>Record data Record findings as drawings, photographs, labelled diagrams, orally, as displays or in simple prepared tables or charts.</p> <p>Present data Gather and record data in appropriate ways with increasing independence to help in answering questions.</p> <p>Answer questions using data</p>

	<p>Answer questions using data With support, begin to explain why some things occur.</p> <p>Draw conclusions With support, talk about what they have found out or what they think might happen next.</p>	<p>Talk to an adult about what has been found/found out.</p> <p>Answer questions using data With support, explain why some things occur.</p> <p>Draw conclusions With support, talk about what they have found out or what they think might happen next/ change based on their own experiences.</p>	<p>Answer questions using data Respond to suggestions to connect what has been observed with possible further actions or observations.</p> <p>Draw conclusions Use their ideas to suggest answers to questions. Say what has changed when observing objects, living things or events.</p>	<p>Use understanding of what has been observed or own experience/ideas to answer questions.</p> <p>Draw conclusions Respond to suggestions to identify some evidence needed to answer a question.</p>
Knowledge	<p>Explore how things work. Understand concepts of growth, change and decay with natural materials. How to plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment and all living things. Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties.</p>	<p>Explore the natural world around them. How we care for the natural world around us. How to draw pictures of the natural world, including animals and plants. Identify and describe some natural processes, such as ice melting, a sound causing a vibration, light travelling through transparent material, an object casting a shadow, a magnet attracting an object and a boat floating on water. Describe what they see, hear and feel whilst outside e.g. identify familiar plants and animals</p>	<p>Animals, including humans Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals Identify and name a variety of common animals that are carnivores, herbivores and omnivores Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) Identify, name, draw and label the basic parts of the human</p>	<p>Animals, including humans Notice that animals, including humans, have offspring which grow into adults Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. Plants Observe and describe how seeds and bulbs grow into mature plants. Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Everyday materials and their uses Identify and compare the suitability of a variety of everyday materials, including</p>

	<p>Talk about the differences between materials and changes they notice.</p> <p>Explore and talk about different forces they can feel.</p>	<p>Understand the effect of changing seasons on the natural world around them</p> <p>e.g. weather, seasonal features and how animals behave differently as the seasons change.</p>	<p>body and say which part of the body is associated with each sense.</p> <p>Plants</p> <p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</p> <p>Identify and describe the basic structure of a variety of common flowering plants, including trees.</p> <p>Everyday materials</p> <p>Distinguish between an object and the material from which it is made</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.</p> <p>Describe the simple physical properties of a variety of everyday materials</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p>Seasonal changes</p> <p>Observe changes across the four seasons</p> <p>Observe and describe weather associated with the seasons and how day length varies.</p>	<p>wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p> <p>Living things and their habitats</p> <p>Explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p>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</p> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats</p> <p>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>
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Vocabulary	<p>Natural world Natural, grow, change, decay,</p> <p>Animals Life-cycle hen, chick, egg, baby</p> <p>Plants Bark, leaves, seeds, rocks, pebbles, shells,</p> <p>Materials and Processes Object, material, Properties - Waterproof, strong/weak, dense/less dense, hard/soft.</p> <p>Materials - Bubble wrap, foil, plastic, fabric, paper, straw, sticks, bricks, metal, glass. Magnifying glass, binoculars, magnet, Sink, float, push, pull, stretch, bend, snap, Cooking, cooling, heating, melting, Light, dark, shadows,</p>	<p>Natural world Natural, wild, wildlife, native.</p> <p>Animals Body parts e.g. backbone, skeleton, soft body, shell. Predator, prey. Nocturnal. Adult/parent, baby. Lifecycle - Egg, caterpillar, pupa, butterfly. Birds (owl, duck), insects/bugs/ minibeasts (e.g. ladybird, woodlouse, bee, wasp, spider, tarantula, earthworm, snail, locust, cricket, millipede, butterfly, caterpillar), fish, reptiles (snake, tortoise, gecko), amphibians, mammals (mouse, shrew, vole, hare, fox).</p> <p>Plants Grow , Lifecycle - roots, shoots, stem, leaves, buds, flower Water, light, warmth, temperature, soil, compost British Autumn fruits and vegetables (e.g. apples, pears, beetroot, carrots, potatoes, butternut squash, sweetcorn, cauliflower).</p> <p>Materials and processes Ice – melting, Sound – vibrations, light/dark, transparent, shadow, magnet, attract, repel, float, sink Bread - Mix, knead, prove, rise.</p>	<p>Animals, including humans Examples of mammals, fish, reptiles, birds and amphibians. Carnivore, herbivore, omnivore. Head, neck, arms, elbows, legs, knees, face, ears, nose, eyes, hair, mouth, teeth, hands, sense, seeing, hearing, touching tasting, smelling.</p> <p>Plants Deciduous and evergreen trees and examples of these common to Britain (e.g. oak, ash, sycamore, horse chestnut, elder, pine, hawthorn, holly, yew, lime, cherry, birch, beech, willow). Examples of common British plants, e.g. daffodil, primrose, bluebell, tulip, snowdrop, dandelion, crocus, rose, wild garlic, cow parsley, foxglove, ivy, buttercup, poppy, lavender. Bulb, roots, stem, leaves, flower (blossom), petals, fruit, roots, seeds, trunk, branches, stem Tally Species</p> <p>Everyday materials Object, material, properties Wood, plastic, glass, paper, water, metal, rock, brick, fabric, elastic, foil, rubber, wool, clay, cardboard</p>	<p>Animals, including humans Survival, water, air, food, Reproduction, growth, adult, baby, offspring, kitten, calf, puppy Exercise, balanced diet (food groups) hygiene</p> <p>Plants Water, light, temperature, growth Germination, reproduction, healthy</p> <p>Everyday materials and their uses Wood, metal, plastic, glass, brick, rock, paper, cardboard. Properties Translucent Squashing, bending, twisting, stretching,</p> <p>Living things and their habitats Living, dead Habitat, microhabitat, woodland, seashore, ocean, pond, desert, rainforest Energy, food chain, predator, prey</p>
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Books	We're Going on a Bear Hunt (habitats) Jasper's Beanstalk (growing) Three Little Pigs (materials) The Very Hungry Caterpillar (life-cycles) Squirrel's Autumn Search One Snowy Night	The Gruffalo (habitats) Leaf man Percy the Park keeper. It starts with a seed – Webber Knowles Ferdie and the falling leaves – Julia Rawlinson Rosie's Walk Farmer Duck Mr Gumpy's outing	It starts with a seed Tiny seed A first book of nature Seasons come, seasons go Can't you sleep little bear	Jack and the Beanstalk
Resources	Interesting natural environments for children to explore outdoors. Collections of natural materials to investigate and talk about. E.g. contrasting pieces of bark, different types of leaves and seeds, different types of rocks, different shells and pebbles from the beach.	Plants and mini-beasts in outdoor environment. Collections of materials e.g. - Bubble wrap, foil, plastic, fabric, paper, straw, sticks, bricks, metal, glass. Seeds and bulbs so children observe growth and decay over time.	Plants in and around school (wild and garden flowers, trees in woodland) Seeds and beans, Bean diary. Weather station Small world animals Life-cycle jigsaws Everyday materials Magnifying glasses Egg timers	Plants in and around school (wild and garden flowers, trees in woodland) Seeds and bulbs Everyday materials Magnifying glasses Egg timers

	<p>Seeds and bulbs so children observe growth and decay over time e.g. observe an apple core going brown and mouldy over time.</p> <p>Help children to care for animals and take part in first-hand scientific explorations of animal life cycles, such as caterpillars or chick eggs.</p> <p>Equipment to support these investigations e.g. magnifying glasses or a tablet with a magnifying app.</p> <p>Mechanical equipment for children to play with and investigate e.g. wind-up toys, pulleys, sets of cogs with pegs and boards.</p>	<p>Equipment to support these investigations e.g. magnifying glasses or a tablet with a magnifying app.</p> <p>Mechanical equipment for children to play with and investigate e.g. wind-up toys, pulleys, sets of cogs with pegs and boards.</p>		
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