






## Year 2 Science Coverage

Plants	Living things and their habitats	Animals including Humans	Everyday Materials
<b>P1</b> I can observe and describe how seeds and bulbs grow into mature plants	<b>L1</b> I can explore and compare the differences between things that are living, dead, and things that have never been alive.	<b>A1</b> I can notice that animals, including humans, have offspring which grow into adults	<b>E1</b> I can identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.
<b>P2</b> 1 can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	<b>L2</b> 1 can 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	<b>A2</b> 1 can find out about and describe the basic needs of animals, including humans, for survival (water, food and air)	<b>E2</b> 1 can find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.
	<b>L3</b> 1 can identify and name a variety of plants and animals in their habitats, including microhabitats.	<b>A3</b> 1 can describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	
	<b>L4</b> 1 can 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.		
<b>Scientist to study:</b> Angie Burnett— (Plant Biologist who grows plants and sees how they react to different conditions that make it more difficult for them to grow)	<b>Scientist to study:</b> Dawood Qureshi (Marine Biologist who studies wildlife in the ocean) William Kirby (Father of modern entomology, the study of insects)	<b>Scientist to study:</b> Dr Kelly Blacklock (Veterinary Surgeon) Daniella Dos Santos (Veterinary Surgeon)	<b>Scientist to study:</b> John Dunlop
<b>Working Scientifically skills:</b> Making observations. Asking questions and setting up simple tests. Performing simple tests Making conclusions.	<b>Working Scientifically skills</b> Making observations Asking questions Recording data and communicating results. Communicating information.	<b>Working Scientifically skills</b> Asking questions and recording data. Making observations (& sorting). Presenting and communicating information.	<b>Working Scientifically skills</b> Making observations. Asking questions and making observations. Setting up a test and communicating results. Making predications and setting up tests. Identifying materials and answering questions.








	Unit	Key End Points	Vocabulary	Prior learning	Future learning	Common misconceptions
<b>Autumn 1</b>	<p style="text-align: center;"><b>Everyday Materials</b> E1-2</p> <div style="background-color: #e91e63; color: white; padding: 5px; margin-bottom: 5px;"> <b>Identifying, grouping and classifying</b>            Making observations to name, sort and organise items.            </div> <div style="background-color: #8bc34a; color: white; padding: 5px; margin-bottom: 5px;"> <b>Research</b>            Using secondary sources of information to answer scientific questions.            </div> <div style="background-color: #004a87; color: white; padding: 5px; margin-bottom: 5px;"> <b>Comparative / fair testing</b>            Changing one variable to see its effect on another, whilst keeping all others the same.            </div> <div style="background-color: #00bcd4; color: white; padding: 5px;"> <b>Pattern-seeking</b>            Identifying patterns and looking for relationships in enquiries where variables are difficult to control.            </div>	<p>By the end of this unit children will be able to: Talk about and describe different objects/materials.</p> <p>Talk about the properties of everyday objects that we use.</p> <p>Understand different materials have different properties.</p> <p>Talk about the suitability of materials for different objects.</p> <p>Explore changing materials.-A1</p> <p>Talk about and describe different objects/ materials.</p> <p>Talk about the properties of everyday objects that we use.</p> <p>Talk about how they've made objects and things that went well or could be improved. Which</p>	<p>Names of materials — wood, metal, plastic, glass, brick, rock, paper, cardboard</p> <p>Properties of materials — opaque, transparent and translucent, reflective, nonreflective, flexible, rigid shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching</p>	<p>Distinguish between an object and the material from which it is made. (Y1 - Everyday materials)</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 - Everyday materials)</p> <p>Describe the simple physical properties of a variety of everyday materials. (Y1 - Everyday materials)</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 Everyday materials)</p>	<p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. (Y3 - Rocks)</p> <p>Notice that some forces need contact between two objects, but magnetic forces can act at a distance. (Y3 Forces and magnets)</p> <p>Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. (Y5 - Properties and changes of materials)</p> <p>Give reasons, based on evidence from comparative and fair tests, for the particular uses of</p>	<p>Some children may think:</p> <ul style="list-style-type: none"> <li>• only fabrics are materials</li> <li>• only building materials are materials</li> <li>• only writing materials are materials</li> <li>the word rock describes an object rather than a material</li> <li>• solid is another word for hard.</li> </ul>



		object is the most suitable for a task.-A2			everyday materials, including metals, wood and plastic. (Y5 - Properties and changes of materials)	
<b>Spring 1</b>	<p style="text-align: center;"><b>Animals Including Humans</b> <b>A1-3</b></p> <p><b>Identifying, grouping and classifying</b> Making observations to name, sort and organise items. </p> <p><b>Observation over time</b> Observing changes that occur over a period of time ranging from minutes to months. </p> <p><b>Research</b> Using secondary sources of information to answer scientific questions. </p>	<p>By the end of this unit children will be able to:</p> <p>Make comparisons between themselves and people that are older and younger than them. Talk about baby animals and their parents. Describe how baby animals change as they grow.</p> <p>Compare baby animals with their parents and other baby animals.</p>	Offspring, reproduction, growth, child, young/old stages (examples chick/hen, baby/child/adult, caterpillar/butterfly)	Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals, including humans) Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans)	Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. (Y3 - Animals, including humans) Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. (Y5 - Living things and their habitats) Describe the life process of reproduction in some plants and animals. (Y5 Living things and their habitats) Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. (Y6 Animals, including humans)	Some children may think: <ul style="list-style-type: none"><li>• an animal's habitat is like its 'home'</li></ul> all animals that live in the sea are fish <ul style="list-style-type: none"><li>• respiration is breathing</li><li>• breathing is respiration</li></ul>



<p><b>Spring 2</b></p>	<p style="text-align: center;"><b>Plant</b> P1&amp;2</p> <p><b>Observation over time</b> Observing changes that occur over a period of time, ranging from minutes to months. </p> <p><b>Comparative / fair testing</b> Changing one variable to see its effect on another, whilst keeping all others the same. </p> <p><b>Identifying, grouping and classifying</b> Making observations to name, sort and organise items. </p>	<p>By the end of this unit children will be able to: Talk about how to grow a variety of plants. Grow a variety of plants from seeds and bulbs Care for a variety of houseplants/plants over the whole of Y2 Describe different seeds — what they look like, what they grow in to and how we use the plant. Talk about how to grow a variety of bulbs. Describe different bulbs — what they look like, what they grow in to and how we use the plant. Talk about the parts of the plants we eat.</p>	<p>Light, shade, sun, warm, cool, water, grow, healthy, Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud</p>	<p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 Plants) Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants)</p>	<p>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. (Y3 Plants) Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. (Y3 - Plants) Investigate the way in which water is transported within plants. (Y3 - Plants) Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 - Plants)</p>	<p>Some children may think:</p> <ul style="list-style-type: none"> <li>• plants are not alive as they cannot be seen to move</li> <li>• seeds are not alive • all plants start out as seeds</li> <li>• seeds and bulbs need sunlight to germinate.</li> </ul>
<p><b>Summer</b></p>	<p style="text-align: center;"><b>Living Things and their Habitats</b> L1-4</p> <p><b>Identifying, grouping and classifying</b> Making observations to name, sort and organise items. </p> <p><b>Research</b> Using secondary sources of information to answer scientific questions. </p>	<p>By the end of this unit children will be able to: Talk about and describe different habitats. Explain how an animal is designed for its habitat. Describe how animals and plants get what</p>	<p>Living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed Names of local habitats e.g. pond, woodland etc. Names of microhabitats e.g.</p>	<p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 Plants) Identify and describe the basic structure of a variety of common</p>	<p>Recognise that living things can be grouped in a variety of ways. (Y4 Living things and their habitats) Explore and use classification keys to help group, identify and name a variety of living</p>	<p>Some children may think:</p> <ul style="list-style-type: none"> <li>• an animal's habitat is like its 'home'</li> <li>• plants and seeds are not alive as they cannot be seen to move</li> </ul>



		they need to survive from their habitat. Order a simple food chain. Say if something is living, dead or never been alive	under logs, in bushes etc.	flowering plants, including trees. (Y1 - Plants) Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 Animals including humans) Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals including humans) Describe and	things in their local and wider environment. (Y4 — Living things and their habitats) Recognise that environments can change and that this can sometimes pose dangers to living things. (Y4 Living things and their habitats) Construct and interpret a variety of food chains,	<ul style="list-style-type: none"><li>• fire is living •</li></ul> arrows in a food chain mean 'eats'.
--	--	--	----------------------------	---	--	--