



**Early Years Curriculum Statutory Framework for the Early Years Foundation Stage September 2021**

**ELG: The natural world**

Children at the expected level of development will be able:

To explore the **natural world** around them, making **observations** and drawing **pictures** of **animals** and **plants**.

To know some **similarities** and **differences** between the natural world around them and **contrasting environments**, drawing on their experiences and what has been read in class.

To understand some important **processes** and **changes** in the natural world around them, including the **seasons** and changing **states of matter**.

**Key Stage 1**

Year group	Topic	Focus	Specific details of learning
Year 1	Childhood	Animals including humans Part1	To identify, name, draw and label the basic parts of the human body and say which part is associated with each <b>sense</b> .
	Childhood	Everyday materials	To distinguish between an object and the <b>material</b> from which it is made. To identify and name a variety of everyday materials, including <b>wood, plastic, glass, metal, water, and rock</b> . To describe the simple physical <b>properties</b> of a variety of everyday materials. To compare and group together a variety of everyday materials on the basis of their simple physical properties.
	Childhood Our wonderful world School days	Seasonal changes	To observe changes across the four <b>seasons</b> . To describe and describe <b>weather</b> associated with the seasons and how day length varies.
	Our wonderful world	Animals including humans Part 2	To identify and name a variety of common <b>animals</b> including <b>fish, amphibians, reptiles, birds and mammals</b> . To describe and compare the structure of a variety of common animals including pets.
	School days	Plants	To identify and name a variety of common wild and garden <b>plants</b> , including <b>deciduous</b> and <b>evergreen</b> trees. To identify the basic structure of a variety of common <b>flowering plants</b> , including <b>trees</b> .
	School days	Everyday materials	To distinguish between an object and the <b>material</b> from which it is made. To identify and name a variety of everyday materials, including <b>wood, plastic, glass, metal, water, and rock</b> . To describe the simple physical <b>properties</b> of a variety of everyday materials. To compare and group together a variety of everyday materials on the basis of their simple physical properties.

	<b>Our wonderful world</b>	Animals including humans Part 3	To identify a variety of animals that are <b>carnivores, herbivores and omnivores</b> .
<b>Year 2</b>	<b>Bright lights, big city</b>	Use of everyday materials Part1	To identify and compare the <b>suitability</b> of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. To find out how the <b>shapes</b> of <b>solid</b> objects made from some materials can be changed by <b>squashing, bending, twisting and stretching</b> .
	<b>Bright lights, big city</b>	Use of everyday materials Part 2	To identify and compare the <b>suitability</b> of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. To find out how the <b>shapes</b> of <b>solid</b> objects made from some materials can be changed by <b>squashing, bending, twisting and stretching</b> .
	<b>Let's explore the world</b>	Living things and their habitat Part 1	To explore and compare the differences between things that are <b>living, dead</b> , and things that have never been alive. To identify that most living things live in <b>habitats</b> to which they are <b>suited</b> and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they <b>depend</b> on each other. To identify and name a variety of <b>plants</b> and <b>animals</b> in their habitats, including <b>micro-habitats</b> . To describe how animals <b>obtain</b> their food from plants and other animals, using the idea of a simple <b>food chain</b> , and identify and name different <b>sources</b> of food.
	<b>Let's explore the world</b>	Living things and their habitat Part 2	To explore and compare the differences between things that are <b>living, dead</b> , and things that have never been alive. To identify that most living things live in <b>habitats</b> to which they are <b>suited</b> and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they <b>depend</b> on each other. To identify and name a variety of <b>plants</b> and <b>animals</b> in their habitats, including <b>micro-habitats</b> . To describe how animals <b>obtain</b> their food from plants and other animals, using the idea of a simple <b>food chain</b> , and identify and name different <b>sources</b> of food.
	<b>Let's explore the world</b>	Plants	To <b>observe</b> and describe how <b>seeds</b> and <b>bulbs</b> grow into <b>mature plants</b> . To find out and describe how plants need <b>water, light</b> and a suitable <b>temperature</b> to grow and stay <b>healthy</b> .
	<b>Magnificent monarchs/ Movers and shakers</b>	Animals including humans	To notice that animals, including <b>humans</b> , have <b>offspring</b> which grow into <b>adults</b> . To find out and describe the basic needs of animals, including humans, for <b>survival</b> . To describe the importance for humans of <b>exercise</b> , eating the right amount of different types of <b>food</b> and <b>hygiene</b> .

## Lower Key Stage 2

Year 3	Emperors and Empires	Light	<p>To recognise that we need <b>light</b> in order to see things and that <b>dark</b> is the <b>absence</b> of light.</p> <p>To notice that light is <b>reflected</b> from <b>surfaces</b>.</p> <p>To recognise that light from the <b>sun</b> can be dangerous and that there are ways to <b>protect</b> their eyes.</p> <p>To recognise that <b>shadows</b> are formed when the light from a <b>light source</b> is blocked by a <b>solid object</b>.</p> <p>To find patterns in the way that the size of shadows changes.</p>
	Through the ages	Animals including humans	<p>To identify that animals, including humans, need the right types and amount of <b>nutrition</b>, and that they cannot make their own food; they get nutrition from what they eat.</p> <p>To identify that humans and some other animals have <b>skeletons</b> and <b>muscles</b> for <b>support, protection</b> and <b>movement</b>.</p>
	Emperors and Empires	Plants	<p>To <b>identify</b> and <b>describe</b> the <b>functions</b> of different parts of <b>flowering plants: roots, stem/trunk, leaves</b> and <b>flowers</b>.</p> <p>To explore the <b>requirements</b> of plants for <b>life</b> and <b>growth</b> (<b>air, light, water, nutrients from soil, and room to grow</b>) and how they vary from plant to plant.</p> <p>To investigate the way in which <b>water</b> is <b>transported</b> within plants.</p> <p>To explore the part that flowers play in the <b>life cycle</b> of flowering plants, including <b>pollination, seed formation</b> and <b>seed dispersal</b>.</p>
	One planet, one world/ Rocks, relics and rumbles	Rocks	<p>To <b>compare</b> and <b>group</b> together different kinds of <b>rocks</b> on the basis of their <b>appearance</b> and simple physical <b>properties</b>.</p> <p>To describe in simple terms how <b>fossils</b> are <b>formed</b> when things that have lived are trapped within rock</p> <p>I can recognise that soils are made from rocks and <b>organic matter</b>.</p>
	One planet, one world/ Rocks, relics and rumbles	Forces and magnets	<p>To compare how things move on different <b>surfaces</b>.</p> <p>To notice that some <b>forces</b> need contact between two objects, but <b>magnetic forces</b> can act at a distance</p> <p>To observe how <b>magnets attract</b> or <b>repel</b> each other and attract some <b>materials</b> and not others describe magnets as having two <b>poles</b>.</p> <p>To <b>predict</b> whether two magnets will attract or repel each other, depending on which poles are <b>facing</b>.</p> <p>To <b>compare</b> and <b>group</b> together a variety of everyday materials on the basis of whether they are attracted to a magnet and identify some <b>magnetic materials</b>.</p>
Year 4	Ancient civilisations	<p>Animals including humans Part 1</p> <p>Animals including humans Part 2</p>	<p>To describe the simple <b>functions</b> of the basic <b>parts</b> of the <b>digestive system</b> in <b>humans</b>.</p> <p>To identify the different <b>types of teeth</b> in humans and their simple functions.</p> <p>To construct and interpret a variety of <b>food chains</b>, identifying <b>producers, predators</b> and <b>prey</b>.</p>
	Achievers and inventors	Sound	<p>To identify how <b>sounds</b> are made, associating some of them with something <b>vibrating</b>.</p> <p>To recognise that <b>vibrations</b> from sounds travel through a <b>medium</b> to the <b>ear</b>.</p> <p>To find patterns between the <b>pitch</b> of a sound and features of the object that produced it.</p> <p>To find patterns between the <b>volume</b> of a sound and the strength of the vibrations that produced it.</p> <p>To recognise that sounds get fainter as the distance from the <b>sound source</b> increases.</p>

	<b>Achievers and inventors</b>	Electricity	<p>To identify <b>common appliances</b> that run on <b>electricity</b>.</p> <p>To construct a <b>simple series electrical circuit</b>, identifying and naming its basic parts, including <b>cells, wires, bulbs, switches and buzzers</b>.</p> <p>To identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete <b>loop</b> with a <b>battery</b>.</p> <p>To recognise that a <b>switch</b> opens and closes a <b>circuit</b> and associate this with whether or not a lamp lights in a simple <b>series circuit</b>.</p> <p>To recognise some common <b>conductors</b> and <b>insulators</b>, and associate <b>metals</b> with being good conductors.</p>
	<b>Misty mountains, winding river and ancient rainforests</b>	Living things and their habitat	<p>To recognise that living things can be grouped in a variety of ways.</p> <p>To explore and use <b>classification keys</b> to help group, identify and name a variety of living things in their <b>local and wider environment</b>.</p> <p>To recognise that <b>environments</b> can change and that this can sometimes pose <b>dangers</b> to living things.</p>
	<b>Misty mountains, winding river and ancient rainforests</b>	<b>States of matter</b>	<p>To compare and group <b>materials</b> together, according to whether they are <b>solids, liquids or gases</b>.</p> <p>To observe that some materials change <b>state</b> when they are <b>heated or cooled</b> and <b>measure or research the temperature</b> at which this happens in <b>degrees Celsius (°C)</b></p> <p>To identify the part played by <b>evaporation and condensation</b> in the <b>water cycle</b> and associate the <b>rate of evaporation</b> with temperature.</p>

---

## Upper Key Stage 2

Year 5	Ground-breaking Greeks	Earth and space	<p>To describe the <b>movement</b> of the <b>Earth</b>, and <b>other planets</b>, relative to the <b>Sun</b> in the <b>solar system</b>.</p> <p>To describe the movement of the <b>Moon</b> relative to the Earth.</p> <p>To describe the Sun, Earth and Moon as approximately <b>spherical bodies</b>.</p> <p>To use the idea of the Earth's <b>rotation</b> to explain <b>day</b> and <b>night</b> and the apparent movement of the sun across the sky.</p>
	Invasion	Forces	<p>To explain that unsupported objects fall towards the <b>Earth</b> because of the <b>force</b> of <b>gravity</b> acting between the Earth and the falling object.</p> <p>To identify the effects of <b>air resistance</b>, <b>water resistance</b> and <b>friction</b>, that act between moving surfaces.</p> <p>To recognise that some <b>mechanisms</b>, including <b>levers</b>, <b>pulleys</b> and <b>gears</b>, allow a smaller force to have a greater <b>effect</b>.</p>
	Invasion	Properties and changes of materials	<p>To compare and group together everyday <b>materials</b> on the basis of their <b>properties</b>, including their <b>hardness</b>, <b>solubility</b>, <b>transparency</b>, <b>conductivity</b> (electrical and thermal), and <b>response to magnets</b>.</p> <p>To know that some materials will <b>dissolve</b> in <b>liquid</b> to form a <b>solution</b>, and describe how to <b>recover</b> a substance from a solution.</p> <p>To use knowledge of <b>solids</b>, <b>liquids</b> and <b>gases</b> to decide how <b>mixtures</b> might be <b>separated</b>, including through <b>filtering</b>, <b>sieving</b> and <b>evaporating</b>.</p> <p>To give reasons, based on <b>evidence</b> from <b>comparative</b> and <b>fair tests</b>, for the particular uses of everyday materials, including metals, wood and plastic.</p> <p>To demonstrate that <b>dissolving</b>, <b>mixing</b> and <b>changes of state</b> are <b>reversible changes</b>.</p> <p>To explain that some changes result in the <b>formation</b> of <b>new materials</b>, and that this kind of change is not usually reversible, including changes associated with <b>burning</b> and the action of <b>acid</b> on <b>bicarbonate of soda</b>.</p>
	Waste not, want not	<p>Living things and their habitat</p> <p>Animals including humans</p>	<p>To describe the <b>differences</b> in the <b>life cycles</b> of a <b>mammal</b>, <b>an amphibian</b>, <b>an insect</b> and <b>a bird</b>.</p> <p>I can describe the life process of <b>reproduction</b> in some plants and animals.</p> <p>To describe the <b>changes</b> as humans develop to <b>old age</b>.</p>
Year 6	How has war shaped our future?	<p>Electricity</p> <p>Light</p>	<p>To associate the <b>brightness</b> of a lamp or the <b>volume</b> of a <b>buzzer</b> with the number and <b>voltage</b> of <b>cells</b> used in the <b>circuit</b>.</p> <p>To compare and give <b>reasons</b> for <b>variations</b> in how <b>components</b> function, including the brightness of bulbs, the loudness of buzzers and the on/off position of <b>switches</b>.</p> <p>To use <b>recognised symbols</b> when representing a simple circuit in a diagram.</p> <p>To use the idea that <b>light</b> travels in <b>straight lines</b> to explain that objects are seen because they give out or <b>reflect</b> light into the <b>eye</b>.</p> <p>To explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.</p> <p>To use the idea that light travels in straight lines to explain why <b>shadows</b> have the same shape as the objects that cast them.</p>



## **Root Skills (Apply to all topics)**

### **Key Stage 1**

- Experience and observe phenomena.
- Examine the natural and man-made world.
- Be curious and ask questions.

Develop an understanding of scientific ideas by:

- Using scientific enquiry to answer own questions.
- Observing changes over a period of time.
- Noticing patterns.
- Grouping and classifying things.
- Carrying out simple comparative tests.
- Finding out things using secondary sources of information.

Use simple scientific language to communicate their ideas to a range of audiences in a variety of ways.

**Learning is carried out through first-hand practical experience and appropriate secondary sources.**

### **Lower Key Stage 2**

- Explore, discuss, test and develop ideas about everyday phenomena.
- Explore the relationships between living things and familiar environments.
- Develop ideas about functions, relationships and interactions.

Develop an understanding of scientific ideas by:

- Asking questions about what they observe and make decisions about which types of scientific enquiry are likely to be the best way of answering them.
- Observing changes over a period of time.
- Noticing patterns.
- Grouping and classifying things.
- Carrying out simple and comparative fair tests.
- Finding things out using secondary sources of information.
- Drawing simple conclusions and using some scientific language.
- Talk and write about what they have found out.

## Upper Key Stage 2

- Explore and talk about ideas.
- Ask own questions.
- Understand abstract ideas and make predictions about how the world operates.
- Recognise that scientific ideas change and develop over time.

Develop an understanding of scientific ideas by:

- Selecting appropriate methods to carry out scientific enquiry.
- Observing changes over time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and using a wide range of secondary sources.
- Draw conclusions based on data.
- Justify ideas based on knowledge and findings.
- Work systematically.