



## Science Progression

	<u>Nursery</u>	<u>Reception</u>	<u>KS1</u>	<u>KS2</u>
Working Scientifically	<p><u>2- 3 Year Olds</u></p> <ul style="list-style-type: none"> <li>-I can notice changes with some adult support.</li> <li>-I can talk about what I see, using basic vocabulary.</li> </ul> <p><u>3-4 Year Olds</u></p> <ul style="list-style-type: none"> <li>-I can use my senses to explore.</li> <li>-I show an awareness of change, as I can talk about the differences between materials and changes that I notice using simple terms to describe.</li> <li>- I can explore how things work</li> </ul>	<p><u>Reception</u></p> <ul style="list-style-type: none"> <li>-I can observe the natural world outside my classroom.</li> <li>-I can use my senses to explore the natural world.</li> <li>-I can understand that living things, objects and materials can change.</li> <li>-I can describe what I see, hear, and feel whilst exploring inside and outside.</li> <li>-I understand through books and making observations that living things and materials can change.</li> </ul> <p><u>ELG</u></p> <ul style="list-style-type: none"> <li>-I can make comparisons and identify similarities and differences.</li> <li>-Explore the natural world around them, making observations and drawing pictures of animals and plants.</li> <li>-Know some similarities and differences between the natural world around them and contrasting environments,</li> </ul>	<ul style="list-style-type: none"> <li>• I can ask simple questions and recognise that they can be answered in different ways.</li> <li>• I can carry out simple tests</li> <li>• I can identify and classify things.</li> <li>• I can use my observations and ideas to suggest answers to questions.</li> <li>• I can gather and record data to help to answer questions.</li> <li>• I can observe closely, using simple equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• I can ask relevant scientific questions and use different types of scientific enquiries to answer them.</li> <li>• I can set up simple practical enquiries.</li> <li>• I can set up a fair and comparative tests.</li> <li>• I can make systematic and careful observations.</li> <li>• I can take accurate measurements using standard units.</li> <li>• I can use a range of equipment, including thermometers and data loggers.</li> <li>• I can gather, record, classify and present data in different ways to answer questions.</li> <li>• I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</li> <li>• I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. . .</li> </ul>

		drawing on their experiences and what has been read in class.		<ul style="list-style-type: none"> <li>• I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</li> <li>• I can identify differences, similarities and changes related to simple scientific ideas and processes.</li> <li>• I can use straightforward scientific evidence to answer questions or to support my findings.</li> </ul>
Animals Including Humans	<u>2- 3 Year Olds</u> -I can name some animals correctly.	<u>Reception</u> -I can talk about what animals need to survive and grow healthy.	<ul style="list-style-type: none"> <li>• I can identify and name a variety of animals including fish, amphibians, reptiles, birds and mammals.</li> </ul>	<ul style="list-style-type: none"> <li>• I can identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food;</li> </ul>

-I can use simple language to describe animals.

### 3-4 Year Olds

-I can examine animals to find out more about them.

-I can use my senses to explore.

-I can use the correct basic scientific vocabulary to describe parts on animals.

-I can explain a simple lifecycle e.g. butterfly, chicks or frogs.

-I can tell you that a chick comes from an egg.

-I can identify an animal.

-I can say bird names familiar to my outdoors.

-I can say animal names.

-I can use my senses to explore the natural world.

-I can understand that living things, objects and materials can change.

-I can describe what I see, hear, and feel whilst exploring inside and outside.

-I understand through books and making observations that living things and materials can change

### ELG

-I can make close observations of animals in the natural world.

-I can make comparisons and identify similarities and differences.

-I understand through books and observations that animals change, and I explain a range of lifecycles.

-I understand how animals grow and change.

- I can identify and name a variety of animals that are carnivores, herbivores and omnivores.
- I can describe and compare the observable features of animals from a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).
- I can notice that animals, including humans, have offspring which grow into adults
- I can identify, name, draw and label the basic parts of the human body.
- I can link the correct part of the human body to each sense.
- I can find out about and describe the basic needs of animals and humans for survival (water, food and air).
- I can describe why exercise, a balanced diet and good hygiene are important for humans.

they get nutrition from what they eat.

- I can identify that humans and some other animals have skeletons and muscles for support, protection and movement.
- I can describe the simple functions of the basic parts of the human digestive system.
- I can identify and describe the different types of teeth in humans and their simple functions.
- I can interpret food chains to identify producers, predators and prey.
- I can construct food chains to identify producers, predators and prey.

<p>Living Things and their Habitats</p>	<p><u>2- 3 Year Olds</u>          -I can name some animals correctly.          -I can use simple language to describe animals.</p> <p><u>3-4 Year Olds</u>          -I can examine animals to find out more about them.          -I can use my senses to explore.</p>	<p><u>Reception</u>          -I can talk about what animals need to survive and grow healthy.          -I can explain where a range of animals live.          -I can describe habitats and some microhabitats.          -I can identify an animal.          -I can say bird names familiar to my outdoors.          -I can say animal names.</p> <p><u>ELG</u>          -I can make close observations of animals in the natural world.          -I can make comparisons and identify similarities and differences.</p>	<ul style="list-style-type: none"> <li>• I can identify, explore and compare the differences between things that are alive, dead and have never lived.</li> <li>• I can identify a variety of plants and animals in their habitats, including microhabitats.</li> <li>• I can identify that most living things live in habitats that they are suited to.</li> <li>• I can describe how different habitats provide for the basic needs of different kinds of plants and animals, and how they depend on each other.</li> <li>• I can describe how animals get their food from other animals/ plants and identify and name different sources of food.</li> <li>• I can use simple food chains to describe these relationships.</li> </ul>	<ul style="list-style-type: none"> <li>• I recognise that living things can be grouped in a variety of ways.</li> <li>• I can explore and use classification keys to group, identify and name a variety of living things in the local and wider environment.</li> <li>• I recognise that environments can change and that this can have an impact on and sometimes pose dangers to living things.</li> </ul>
<p>Plants</p>	<p><u>2- 3 Year Olds</u>          -I can name some plants correctly.          -I can use simple language to describe plants e.g. colour and size.</p>	<p><u>Reception</u>          -I can talk about what plants need to survive and grow healthy.          -I can explain where some plants grow.</p>	<ul style="list-style-type: none"> <li>• I can identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</li> <li>• I can identify and describe the basic structure of a variety of common flowering plants, including trees.</li> </ul>	<ul style="list-style-type: none"> <li>• I can identify and describe the function of different parts of flowering plants and trees (roots, stem/trunk, leaves and flowers).</li> <li>• I can explore the requirements of plants for life and growth (air, light,</li> </ul>

	<p><u>3-4 Year Olds</u></p> <p>-I can examine plants to find out more about them.</p> <p>-I can use the correct basic scientific vocabulary to describe parts of a plant.</p> <p>-I can explain a simple lifecycle e.g. sunflower or oak tree.</p> <p>-I can plant a seed, bulb or bean and observe it growing.</p> <p>-I can talk about how a seed, bulb or bean grows.</p>	<p>-I can describe habitats and some microhabitats.</p> <p>-I can identify a plant.</p> <p>-I can tell you familiar plants and name them.</p> <p>-I can tell the difference between bushes and trees.</p> <p><u>ELG</u></p> <p>I can make close observations of plants in the natural world</p> <p>-I can make comparisons and identify similarities and differences.</p> <p>-I understand how plants grow and change.</p>	<ul style="list-style-type: none"> <li>• I can describe the basic needs of plants for survival and the impact of changing these (water, light and suitable temperature).</li> <li>• I can describe the main changes as seeds and bulbs grow into mature plants.</li> </ul>	<p>water, nutrients from soil, and room to grow) and how they vary from plant to plant.</p> <ul style="list-style-type: none"> <li>• I can investigate the way in which water is transported within plants.</li> <li>• I can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</li> </ul>
<p>Seasonal Changes</p>	<p><u>2- 3 Year Olds</u></p> <p>-I can talk about how the weather changes, and that different places/countries have different weather.</p> <p>-I can name some types of weather e.g. rainy, sunny, windy, snowy, cloudy, and stormy.</p>	<p><u>Reception</u></p> <p>-I can name the four seasons.</p> <p>-I can order the four seasons.</p> <p>-I can describe how the seasons can affect the natural world and how things grow. E.g. acorns and conkers are found in autumn and some trees have no leaves in the winter.</p>	<ul style="list-style-type: none"> <li>• I can observe and describe changes across the four seasons.</li> <li>• I can observe and describe the weather associated with the seasons and how day length varies.</li> </ul>	

	<p><u>3-4 Year Olds</u>          -I can talk about some natural features that I see and feel during different seasons, including different weather.</p> <p>-I can talk about the clothes that I need for different seasons/weather and why.</p> <p>-I am beginning to explore my five senses (taste, touch, listen, sight, smell).</p> <p>-I can describe what I see/hear/ feel using extended vocabulary</p>	<p>-I can use descriptive words to describe what I can see.</p> <p>-I can talk about the weather and describe it.</p> <p><u>ELG</u>          -I can notice and describe seasonal weather patterns. I can ask how and why questions.</p> <p>-Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>		
Light	<p><u>3-4 Year Olds</u>          -I can see my shadow.          -I can explore with a torch.          -I can go in the dark den.          -I know when the light is on.          -I can make shadows with light.          -I can explore a dark den and tell you how it looks and feels.</p>			<ul style="list-style-type: none"> <li>• I can describe what dark is (the absence of light).</li> <li>• I can explain that light is needed in order to see.</li> <li>• I can explain that light is reflected from a surface.</li> <li>• I can recognise that shadows are formed when the light from a light source is blocked by an opaque object.</li> <li>• I can find patterns in the way that the size of shadows change.</li> </ul>

				<ul style="list-style-type: none"> <li>I can recognise that light from the sun can be dangerous and describe how to protect our eyes.</li> </ul>
Forces and Magnets	<p><u>2- 3 Year Olds</u></p> <ul style="list-style-type: none"> <li>-I can explore how things work.</li> <li>-I notice what happens if I snap a twig.</li> <li>-I can push a trike.</li> <li>-I can pull a chair to where I need it.</li> <li>-I can move water.</li> </ul> <p><u>3-4 Year Olds</u></p> <ul style="list-style-type: none"> <li>-I can explore how things work, and I can talk about 'contact' forces such as pushes and pulls.</li> <li>-I can use a magnet.</li> <li>-I can notice when I put something heavy in the water that it sinks down.</li> <li>-I can tell you what cannot bend.</li> <li>-I can explore floating and sinking and experiment with different objects.</li> </ul>	<p><u>Reception</u></p> <ul style="list-style-type: none"> <li>-I can explore 'non-contact' forces such as gravity or magnetism.</li> <li>-I can describe what I see, hear and feel whilst exploring inside and outside.</li> </ul> <p><u>ELG</u></p> <ul style="list-style-type: none"> <li>-I can notice links between cause and effect as I explore changes such as speed, direction, shape or magnetism.</li> <li>-I can describe and make comparisons.</li> </ul>		<ul style="list-style-type: none"> <li>I can explore, describe and compare how objects move on different surfaces.</li> <li>I can notice and describe that some forces need contact between two objects, but magnetic forces can act at a distance.</li> <li>I can observe and describe how magnets attract or repel each other and attract some materials and not others.</li> <li>I can describe how magnets have two poles.</li> <li>I can predict whether magnets will attract or repel, depending on which poles are facing.</li> <li>I can compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.</li> </ul>
Sound	<p><u>2- 3 Year Olds</u></p> <p>I can talk about familiar sounds at home and school.</p>	<p><u>Reception</u></p> <ul style="list-style-type: none"> <li>-I can identify and describe the source of a range of sounds.</li> <li>-I can explore how to change sounds.</li> </ul>		<ul style="list-style-type: none"> <li>I can identify how sound is made, associating some of them with something vibrating.</li> </ul>

	<p><u>3-4 Year Olds</u>          -I understand that sounds can come from a range of sources.</p>	<p>-I can describe changes in sound such as loud, quiet, fast and slow.</p> <p><u>ELG</u>          -I can explain how and why sounds can be changed.</p>		<ul style="list-style-type: none"> <li>• I can recognise that vibrations from sounds travel through a medium to the ear.</li> <li>• I can find patterns between the pitch of a sound and the features of the object that produced it.</li> <li>• I can find patterns between the volume of a sound and the strength of the vibrations that produced it.</li> <li>• I can recognise that sound gets fainter as the distance from the sound source increases.</li> </ul>
Electricity				<ul style="list-style-type: none"> <li>• I can identify common appliances that run on electricity.</li> <li>• I can construct a simple series electrical circuit.</li> <li>• I can identify and name the components in a series circuit, including cells, wires, bulbs, switches and buzzers.</li> <li>• I can predict and test whether a lamp will light within a circuit, based on whether or not the lamp is part of the complete loop with a battery.</li> </ul>



				<ul style="list-style-type: none"> <li>• I can recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</li> <li>• I can recognise some common conductors and insulators, giving examples of each, and associate metals with being good conductors.</li> </ul>
<p><i>Materials</i></p>	<p><u>2- 3 Year Olds</u>  - I can talk about materials. (Collections of the same materials, e.g. shells, leaves).   - I can talk about what I can see.   - I can explore natural materials both indoors and outside, using my senses to discover textures, shapes and more.</p> <p><u>3-4 Year Olds</u>  - I can explore collections of different materials with similar and different properties.   - I can name some common materials, e.g. sand, wood,</p>	<p><u>Reception</u>  - I can name some common materials e.g. sand, wood, brick, clay, fabric.   - I can use language to describe common features of materials e.g. colour, texture and size.   - I can describe and make comparisons between materials.   - I can talk about the changes to materials that I notice.   - I can understand that living things, objects and materials can change.  - I can describe what I see, hear, and feel whilst exploring inside and outside.  - I understand through books and making observations that living things and materials can change</p>	<ul style="list-style-type: none"> <li>• I can distinguish between an object and the material it is made from.</li> <li>• I can describe the simple physical properties of a variety of everyday materials.</li> <li>• I can identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.</li> <li>• I can compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> <li>• 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.</li> <li>• I can explain how shapes can be changed by squashing, bending, twisting and stretching.</li> </ul>	

	<p>glass, brick, clay, fabric, etc. with adult support.</p> <p>-I show an awareness of change, as I can talk about the differences between materials and changes that I notice using simple terms to describe.</p>	<p><u>ELG</u></p> <p>-I can experiment with making changes to materials.</p> <p>-I can ask and answer 'how' and 'why' questions, such as how things happened and how they work.</p> <p>-I can choose how I classify objects according to their properties.</p>		
Rocks				<ul style="list-style-type: none"> <li>• I can compare and group different kinds of rocks based on their appearance and simple physical properties,</li> <li>• I can describe in simple terms how fossils are formed when things that have lived are trapped within rocks.</li> <li>• I can recognise that soils are made from rocks and organic matter.</li> </ul>
States of Matter	<p><u>3-4 Year Olds</u></p> <p>-I show an awareness of change, as I can talk about the differences between materials and changes that I notice using simple terms to describe.</p> <p>-I can bake with an adult.</p>	<p><u>ELG</u></p> <p>-Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• I can compare and group materials based on their state of matter (solid, liquid, gas).</li> <li>• I can observe and describe how some materials change state when they are heated or cooled.</li> </ul>

	<p>-I can tell you what happens when something goes into the oven.</p> <p>-I know chocolate melts.</p> <p>-I can explore ice and I begin to understand why ice melts.</p> <p>-I can make ice melt in a variety of ways (water, salt, heat).</p>			<ul style="list-style-type: none"><li>• I can measure or research the temperature at which materials change state in degrees Celsius (<math>^{\circ}\text{C}</math>).</li><li>• I can explain the water cycle and the part played by evaporation and condensation in this process.</li><li>• I can associate the rate of evaporation with temperature.</li></ul>
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