



Learning, Caring and Growing Together in Faith

St Andrew's C of E Infant School

Progression in Science Knowledge & Skills

Area of Learning	Reception	Year 1	Year 2
ELG and National curriculum	<p>ELGs Children at the expected level of development will:</p> <ul style="list-style-type: none">• Explore the natural world around them, making observations and drawing pictures of animals and plants.• 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.• Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.		
Living Things and their Habitats	<ul style="list-style-type: none">• Know about similarities and differences between the natural world around them and contrasting		<ul style="list-style-type: none">• Explore and compare the differences between things that are living, dead and things that have never been alive.

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	<p>environments in relation to living things.</p> <ul style="list-style-type: none"> • Talk about the features of their own immediate environment and how environments might vary from one another. (Compare minibeast/animals/plants in school grounds to another environment i.e. beach, forest etc). • Observe a worm in it's own habitat. Monitor changes over a period of time. <p><u>These are examples of incidental language that they may be exposed to in EYFS</u> Natural, Plant, Animals, Seeds, Conkers, Acorns, Twigs, Bark, Shells.</p>		<ul style="list-style-type: none"> • 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. • 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><u>New vocabulary:</u> Living, Dead, Habitat, Micro-habitat, Suited, Basic needs, Source, Consumer, Predator, Energy, Food chain, Adapted, Respiration, Excretion, Reproduction.</p>
<p>Materials</p> <p>Including: Everyday uses of materials, and how solid objects made from some materials can be changed. (YR2)</p>	<ul style="list-style-type: none"> • Experiment with materials. • Observe and interact with natural processes such as a magnet attracting to an object, changes in states and floating/sinking. 	<ul style="list-style-type: none"> • Distinguish between an object and the material from which it is made. • Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, rock. 	<ul style="list-style-type: none"> • Identify and compare the suitability of a variety of everyday materials, including 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.

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	<p><u>These are examples of incidental language that they may be exposed to in EYFS</u> Mix, Stir, Hot, Cold, Melt, Runny, Freeze.</p>	<ul style="list-style-type: none"> Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of materials on the basis of their simple physical properties. <p><u>New vocabulary:</u> Absorbent, Opaque, Transparent, Stretchy, Stiff, Shiny, Dull, Rough, Smooth.</p>	<p><u>New vocabulary:</u> Suitability, Stretch, Flexible, Rigid, John McAdam, Charles Macintosh.</p>
Seasonal Changes	<ul style="list-style-type: none"> Understand some important processes and changes in the natural world around them including the seasons. Explore the natural world around them, through the seasons, using the five senses. <p><u>These are examples of incidental language that they may be exposed to in EYFS</u> Sunny, Rainy, Icy, Windy, Cloudy, Fog, Cold, Warm, Wet, Dry, Autumn, Spring, Summer, Winter.</p>	<ul style="list-style-type: none"> Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies. <p><u>New vocabulary:</u> Season, Weather, Daylight, Day length, Sunrise, Sunset.</p>	
Animals	<ul style="list-style-type: none"> Explore the natural world around them, 	<ul style="list-style-type: none"> Identify and name a variety of common animals including fish, 	<ul style="list-style-type: none"> Notice that animals including humans have offspring which grow into adults.

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	<p>making observations and drawing pictures.</p> <ul style="list-style-type: none"> • Compare animals in the school grounds to another environment. • Learn what herbivores and carnivores eat • Learn about which animals come from eggs. <p><u>These are examples of incidental language that they may be exposed to in EYFS</u> Eggs, Caterpillar, Chrysalis, Butterfly, Hatch, Lifecycle, Change, Turn, Herbivore, Carnivore.</p>	<p>amphibians, reptiles, birds and mammals.</p> <ul style="list-style-type: none"> • 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). <p><u>New vocabulary:</u> Omnivore, Amphibians, Reptiles, Mammals, Structure, Vertebrae, Scaly, Gills.</p>	<ul style="list-style-type: none"> • Find out about and describe the basic needs of animals, including humans for survival (water, food, air). <p><u>New vocabulary:</u> Offspring, Survival, Reproduction.</p>
<p>Humans</p> <p>Including Health (Year 2)</p>	<ul style="list-style-type: none"> • Oral health <p><u>These are examples of incidental language that they may be exposed to in EYFS</u> Teeth, Brush, Clean, Dentist, Toothpaste, Tongue, Gum.</p>	<ul style="list-style-type: none"> • Identify, name and draw and label basic parts of the human body and say which part is associated with each sense. <p><u>New vocabulary:</u> Senses, Head, Neck, Arms, Legs, Knees, Face, Ears, Eyes, Hair, Mouth, Teeth, Elbows, Shoulders, Taste buds.</p>	<ul style="list-style-type: none"> • Notice that humans have offspring which grow into adults. • Find out about and describe the basic needs of 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. <p><u>New vocabulary:</u></p>

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			Offspring, Develop, Hygiene, Germs, Bacteria, Nutrition, Disease, Carbohydrates, Protein, Dairy, Toddler, Teenager, Adult, Elderly.
<p>0.Plants</p> <p>Reception – Cress</p> <p>Year 1 – Sunflower/daffodils</p> <p>Year 2 - Beans</p>	<ul style="list-style-type: none"> Explore the natural world around them, making observations and drawing pictures of plants/trees. Observing changes from seeds to plants. <p><u>These are examples of incidental language that they may be exposed to in EYFS</u></p> <p>Plant, Grow, Leaf, Bulb, Weed.</p>	<ul style="list-style-type: none"> Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees. <p><u>New vocabulary:</u></p> <p>Fruit, Roots, Trunk, Branch, Evergreen, Deciduous, Oak, Horse Chestnut, Pine, Flowers, Petals, Bulb, Seed, Stem, Blossom, Daisy, Dandelion, Sunflower, Rose.</p>	<ul style="list-style-type: none"> 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. <p><u>New vocabulary:</u></p> <p>Germination, Nutrients, Environment, Temperature, Mature.</p>



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W O R K I N G S C I E N T I F I C A L L Y	<p>ELG: Listening, Attention and Understanding</p> <ul style="list-style-type: none"> - Make comments about what they have heard and ask questions to clarify their understanding. <p>ELG: Fine motor skills</p> <ul style="list-style-type: none"> - Use a range of small tools, including scissors, paint brushes and cutlery. <p>ELG: Building Relationships</p> <ul style="list-style-type: none"> - Work and play cooperatively and take turns with others <p>ELG: The Natural World</p> <ul style="list-style-type: none"> - Explore the natural world around them, making observations and drawing pictures of animals and plants; - 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; - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. <p>Children at the end of EYFS should be able:</p> <p>To feel confident to answer simple questions about observable properties of objects and people, animals and plants around them</p> <p>To compare objects in their environment and talk about similarities and differences</p> <p>To ask questions about the world around them, and seek to find their own answers</p>	<p><u>Working scientifically</u></p> <p>During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> • asking simple questions and recognising that they can be answered in different ways • observing closely, using simple equipment • performing simple tests • identifying and classifying • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions <p>The progression in working scientifically is children practising and developing the skills in different contexts so that they become embedded across the 2 years, rather than having different skills in each year group. In Y1 the children will be doing the same skills as in Y2. Y1 will have more modelling and by the end of Y2 should be more confident with them,</p>
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