

## Dimple Well Infant School and Nursery Science Progression

<b>Working scientifically</b>	
<b>EYFS 2021</b>	<b>Year 1 and 2</b>
<p>While children are playing and exploring, teachers are modelling, encouraging and supporting them to do the following:</p> <ul style="list-style-type: none"> <li>• show curiosity and ask questions</li> <li>• make observations using their senses and simple equipment</li> <li>• make direct comparisons</li> <li>• use equipment to measure</li> <li>• record their observations by drawing, taking photographs, using sorting rings or boxes and, in Reception, on simple tick sheets</li> <li>• use their observations to help them to answer their questions</li> <li>• talk about what they are doing and have found out</li> <li>• identify, sort and group.</li> </ul>	<p><b>Asking simple questions and recognising that they can be answered in different ways</b></p> <ul style="list-style-type: none"> <li>• While exploring the world, the children develop their ability to ask questions (such as what something is, how things are similar and different, the ways things work, which alternative is better, how things change and how they happen). Where appropriate, they answer these questions.</li> <li>• The children answer questions developed with the teacher often through a scenario.</li> <li>• The children are involved in planning how to use resources provided to answer the questions using different types of enquiry, helping them to recognise that there are different ways in which questions can be answered.</li> </ul> <p><b>Observing closely, using simple equipment</b></p> <ul style="list-style-type: none"> <li>• Children explore the world around them. They make careful observations to support identification, comparison and noticing change. They use appropriate senses, aided by equipment such as magnifying glasses or digital microscopes, to make their observations.</li> <li>• They begin to take measurements, initially by comparisons (Year 1), then using non-standard units (Year 2).</li> </ul> <p><b>Performing simple tests</b></p> <ul style="list-style-type: none"> <li>• The children use practical resources provided to gather evidence to answer questions generated by themselves or the teacher. They carry out: tests to classify; comparative tests; pattern seeking enquiries; and make observations over time.</li> </ul> <p><b>Identifying and classifying</b></p> <ul style="list-style-type: none"> <li>• Children use their observations and testing to compare objects, materials and living things. They sort and group these things, identifying their own criteria for sorting.</li> <li>• They use simple secondary sources (such as identification sheets) to name living things. They describe the characteristics they used to identify a living thing.</li> </ul>

**Gathering and recording data to help in answering questions**

- The children record their observations e.g. using photographs, videos, drawings, labelled diagrams or in writing.
- They record their measurements e.g. using prepared tables, pictograms, tally charts and block graphs.
- They classify using simple prepared tables and sorting rings.

**Using their observations and ideas to suggest answers to questions**

- Children use their experiences of the world around them to suggest appropriate answers to questions. They are supported to relate these to their evidence e.g. observations they have made, measurements they have taken or information they have gained from secondary sources.
- The children recognise 'biggest and smallest', 'best and worst' etc. from their data.

## Subject knowledge

	Animals, including humans	Plants	Living things & their habitats	Materials	Seasons	Forces & electricity	Light & sound	Earth & space
<b>Nursery</b>	Use all their senses in hands-on exploration of natural materials. Begin to make sense of their own life-story and family's history. 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	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. 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. Talk about the differences between materials and changes they notice.	<b>Understand the key features of the life cycle of a plant and an animal. (Nursery – Plants &amp; Animals, excluding humans)</b>	Explore how things work. Explore and talk about different forces they can feel. Talk about the differences between materials and changes they notice.	Explore how things work. Talk about the differences in materials and changes they notice.	
<b>Reception EYFS 2021 Curriculum Statements</b>	<p><b>Understanding the World</b></p> <p><b>People, Culture and Communities</b></p> <ul style="list-style-type: none"> <li>Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps.</li> </ul> <p><b>The Natural World</b></p> <ul style="list-style-type: none"> <li>Explore the natural world around them, making observations and drawing pictures of animals and plants. Explore the natural world around them.</li> <li>Describe what they see, hear and feel whilst outside.</li> <li>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.</li> <li>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</li> </ul>							

	<b>Animals, including humans</b>	<b>Plants</b>	<b>Living things &amp; their habitats</b>	<b>Materials</b>	<b>Seasons</b>	<b>Forces &amp; electricity</b>	<b>Light &amp; sound</b>	<b>Earth &amp; space</b>
<b>Year 1</b>	<p>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 body and say which part of the body is associated with each sense.</p>	<p>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>	<p>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 compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1 - Animals, including humans)  Observe changes across the four seasons. (Y1 - Seasonal change)</p>	<p>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, and rock. Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties</p>	<p>Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.</p>		<p>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)  Describe the simple physical properties of a variety of everyday materials. (Y1 - Materials)</p>	<p>Observe changes across the four seasons. (Y1 – Seasonal changes) • Observe and describe weather associated with the seasons and how day length varies. (Y1 – Seasonal changes)</p>

	Animals, including humans	Plants	Living things & their habitats	Materials	Seasons	Forces & electricity	Light & sound	Earth & space
<b>Year 2</b>	<p>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.</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. (Y2 - Living things and their habitats)</p>	<p>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. Identify and name a variety of plants and animals in their habitats, including microhabitats.</p>	<p>Explore and compare the differences between things that are living, dead, and things that have never been alive. 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 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. Notice that animals, including humans, have offspring which grow into adults. (Y2 - Animals including humans)</p>	<p>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.</p>		<p>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Y2 - Uses of everyday materials)</p>		

Statements in red are from other linked topics.

