

Nonsuch Primary School

# Progression to Year 1

Science Document

melissa

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In planning and guiding what children learn, practitioners must reflect on the different rates at which children are developing and adjust their practice appropriately. The three Characteristics of Effective Teaching and Learning are:

- **playing and exploring** - children investigate and experience things, and ‘have a go’;
- **active learning** - children concentrate and keep on trying if they encounter difficulties and enjoy achievements.
- **creating and thinking critically** - children have and develop their own ideas, make links between ideas, and develop strategies for doing things.

In addition, the prime areas of learning (**PSE, CL, PD**) underpin and are an integral part of children’s learning in all areas.

### EYFS Science Skills

#### Working Scientifically

Comments and asks questions about aspects of their familiar world such as the natural world, making observations and drawing pictures of animals and plants.

Talks about why things happen and how things work

Looks closely at similarities, differences, patterns and change

Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter

Explore and talk about different forces I can feel – gravity, push and pull toys

- All About Me
- Christmas Then and Now (Toys)
- Winter
- Easter
- Spring and Growth

#### Plants

Plant seeds and care for growing plants.

Understand the key features of the life cycle of a plant.

Developing an understanding of growth, decay and changes over time.

Identify similarities and differences in relation to living things.

- Spring and Growth

#### Animals (including humans)

Understand the life cycle of a caterpillar

Begin to understand the need to respect and care for the natural environment and all living things.

Talk about the features of their own immediate environment and how environments might vary from one another.

- All About Me
- The Farm

#### Everyday Materials

Identify similarities and differences in relation to materials

- Traditional Tales

Seasons to be covered throughout the year

### EYFS Science Knowledge

**Autumn – All About Me / Christmas Then and Now (Toys)**

<b>Working Scientifically:</b> Push and pull toys / senses investigation		
<b>Working Scientifically</b>	<b>Animals Including Humans</b>	
<ul style="list-style-type: none"> <li>To know how to ask questions about the world the world through using my senses - feeling, hearing, seeing</li> <li>To know and can talk about forces I can feel</li> </ul>	<ul style="list-style-type: none"> <li>To know about life cycle of an human</li> <li>To know I need to respect and care for the natural environment and all living things.</li> </ul>	
<b>Spring Winter / Easter / Traditional Tales</b>		
<b>Working Scientifically:</b> Changing state – ice (linked to the seasons) / Changing state – chocolate		
<b>Working Scientifically</b>	<b>Everyday Materials</b>	
<ul style="list-style-type: none"> <li>To know some important processes and changes in the natural world around them, including the seasons and changing states of matter.</li> </ul>	To know some similarities and differences in relation to materials (coat for Little Red Riding Hood).	
<b>Summer The Farm / Spring and Growth</b>		
<b>Working Scientifically:</b> Habitats (farm), lifecycles , growing plants		
<b>Working Scientifically</b>	<b>Animals</b>	<b>Plants</b>
<ul style="list-style-type: none"> <li>To know about aspects of my familiar world such as the natural world, making observations and drawing pictures</li> </ul>	<ul style="list-style-type: none"> <li>To know how to care for animals (trip)</li> <li>To know some of the features of my own immediate environment and how they might vary from one another (farm)</li> </ul>	<ul style="list-style-type: none"> <li>To know how to care for growing plants.</li> <li>To know about the life cycle of a plant</li> <li>To know about growth, decay and changes over time</li> <li>To know some similarities and differences in relation to living things.</li> </ul>
<b>Key Vocabulary</b>		
Science, experiment, test, fair, why, senses, world, plants – leaf, stem, root, flower, animals, humans, materials - waterproof, natural, change, growth, decay, life cycle, push and pull, reduce, reuse, recycle, changes in state, water, liquid, temperature, gas, flexible, hard, transparent, soft, light, soil, air, egg, caterpillar, chrysalis, butterfly		
<b>Links to Year 1:</b>		
<b>Aims:</b>	<b>Subject Content:</b>	
♣ develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.	<b>Working Scientifically:</b>	
	♣ asking simple questions and recognising that they can be answered in different ways	

- ♣ develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- ♣ are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

- ♣ 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.

**Plants:**

- ♣ 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.

**Animals including Humans:**

- ♣ 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.

**Everyday Materials:**

- ♣ 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.

**Seasonal Changes:**

- ♣ observe changes across the four seasons
- ♣ observe and describe weather associated with the seasons and how day length varies.