



# St Jude's C of E Infant School

Excellence in education, kindness in the community, courage through faith.



<b>Science</b>		
<b>Science: (UOW)</b>		
<b>2-3 years</b>	<b>3-4 years</b>	<b>In Reception</b>
<ul style="list-style-type: none"> <li>• Explore and respond to different natural phenomena (weather)</li> <li>• Can talk about some of the things they have observed such as plants, animals, natural and found objects.</li> <li>• Shows care and concern for animals and the natural environment</li> <li>• Helps to look after class pets</li> <li>• Observes the life cycle of a butterfly</li> <li>• Plants seeds</li> <li>• Explores magnetic toys</li> </ul>	<ul style="list-style-type: none"> <li>• Use all their senses in hands-on exploration of natural materials</li> <li>• Can talk about what they see using a wide vocabulary.</li> <li>• Explore the effects of different coloured lights/torches/coloured filters and of shadows</li> <li>• Talk about the differences between materials and changes they notice (cooking, combining, melting, changes of state)</li> <li>• Explore how things work</li> <li>• Understands the need to respect and care for the natural environment and all living things.</li> <li>• Help look after class pets</li> <li>• Investigates minibeasts. Observing, drawing, naming and classifying them.</li> <li>• Observe the life cycles of butterflies and frogs</li> <li>• Talk about different forces e.g. how the water pushes when you try to push something down.</li> <li>• Explores how different materials sink and float.</li> <li>• Plant seeds and care for growing plants</li> <li>• Explore and talk about different forces they can feel (water resistance, air resistance, magnetism)</li> <li>• Make observations and drawings of flowers and plants</li> </ul>	<ul style="list-style-type: none"> <li>• Can talk about members of their family.</li> <li>• Knows that there are different types of families.</li> <li>• Can name and describe people who are familiar to them.</li> <li>• Can draw a picture of the human body and can name some body parts</li> <li>• Understands how to explore the world around them.</li> <li>• Can describe what they see, hear and feel whilst outside, e.g. colours of the rainbow</li> <li>• Can talk about the features of the current season.</li> <li>• Can match farm animals and their young, using the correct names</li> <li>• Is able to talk about the importance of washing and drying their hands</li> <li>• Is able to ask scientific questions to find out how things work and why things happen.</li> <li>• Is able to plant seeds and care for growing plants.</li> <li>• Understands the key features of a life-cycle of a plant and an animal.</li> </ul>
<p><b>Children at the expected level of development will (ELG):</b></p> <ul style="list-style-type: none"> <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, 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> <li>•</li> </ul>		



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	Year 1	Year 2
Animals including humans	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>• identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals;</li> <li>• identify and name a variety of common animals that are carnivores, herbivores and omnivores;</li> <li>• describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets);</li> <li>• identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>• notice that animals, including humans, have offspring which grow into adults;</li> <li>• find out about and describe the basic needs of animals, including humans, for survival (water, food and air);</li> <li>• describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</li> </ul>
Plants	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>• identify and name a variety of common wild and garden plants, including deciduous and evergreen trees;</li> <li>• identify and describe the basic structure of a variety of common flowering plants, including trees.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>• observe and describe how seeds and bulbs grow into mature plants;</li> <li>• find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</li> </ul>
Living things and their habitats		<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>• explore and compare the differences between things that are living, dead, and things that have never been alive;</li> <li>• 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;</li> <li>• identify and name a variety of plants and animals in their habitats, including microhabitats;</li> <li>• 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.</li> </ul>
Seasonal changes	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>• observe changes across the 4 seasons;</li> </ul>	



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	<ul style="list-style-type: none"> <li>observe and describe weather associated with the seasons and how day length varies.</li> </ul>	
Materials	<p>Everyday Materials</p> <p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>distinguish between an object and the material from which it is made;</li> <li>identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock;</li> <li>describe the simple physical properties of a variety of everyday materials;</li> <li>compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul>	<p>Use of Everyday Materials</p> <p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>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>find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</li> </ul>

	Year 1	Year 2
Testing	Perform simple tests (Year 1 focus) e.g. • Which materials keep things warmest? Know whether the test has been successful and can say what has been learned.	Perform simple comparative and fair tests (Yr 2 focus) e.g. • Finding out how seeds grow best
Scientific questioning	Ask simple questions and recognise that they can be answered in different ways e.g. • Why are flowers different colours? • Why do some animals eat meat and others do not?	Ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum e.g. • Why do some trees lose their leaves in autumn and others do not? • How long are the roots of tall trees? • Why do some animals have underground habitats?
Measuring	Use simple equipment to observe closely (Y1 focus)	Use simple equipment such as thermometers and rain gauges to observe closely changes over time (Y2 focus)
Gathering and recording	Gather and record data to help in answering questions (Year 1 focus)	Gather and record data to help in answering questions including from secondary sources of information using drawings, labelled diagrams, block graphs or tables. (Year 2 focus)
Communicating Findings	Make a simple written explanation about what has been learned from an investigation or what conclusions have been found	Communicate his/her Ideas, what he/she does and what he/she finds out In a variety of ways e.g. simple written reports or write ups.
classifying	Identify and classify e.g. Mammals and birds (Year1 focus)	Identify, group and classify according to a given criteria e.g. Deciduous and coniferous trees (Year 2 focus) e.g. using a Venn Diagram
Concluding and questioning		Use his/her observations and ideas to suggest answers to questions noticing similarities, differences and patterns (Year 2 focus)

# National Curriculum Working Scientifically in KS1

