

St John's Catholic School Science Progression Map

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p style="text-align: center;"><u>SKILLS</u></p> <p>Working Scientifically</p>	<p>Ask simple questions and recognise that they can be answered in different ways</p> <p>Use simple equipment to observe closely</p> <p>Perform simple tests Identify and classify</p> <p>Use his/her observations and ideas to suggest answers to questions</p> <p>Gather and record data to help in answering questions</p>	<p>Asking simple questions and recognising that they can be answered in different ways.</p> <p>Observing closely using simple equipment.</p> <p>Performing simple tests.</p> <p>Identifying and classifying</p> <p>Using their observations and ideas to suggest answers to questions.</p> <p>Gathering and recording data to help in answering question</p>	<p>Asking relevant questions and using different types of scientific enquiries to answer them.</p> <p>Setting up simple practical enquiries, making observations and taking accurate measurements using standard units.</p> <p>Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. Reporting on findings from enquiries, including oral and written explanations and conclusions and predictions.</p> <p>Suggest improvements and raise further questions identifying differences, similarities or changes related to simple scientific ideas and processes.</p>	<p>Asking relevant questions and using different types of scientific enquiries to answer them, including comparative and fair tests.</p> <p>Make systematic and careful observations and take accurate measurements using standard units, using a range of equipment.</p> <p>Recording, classifying and presenting data in a variety of ways, using simple scientific language, drawings, labelled diagrams, keys, bar charts, and table.</p> <p>Reporting on findings from enquiries, including oral and written explanations, drawing simple conclusions and making predictions.</p> <p>Suggest improvements and raise further questions identifying differences, similarities or changes related to simple scientific ideas and processes.</p>	<p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Taking measurements, using a range of scientific equipment, with increasing accuracy and precision.</p> <p>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs.</p> <p>Using test results to make predictions to set up further comparative and fair tests.</p> <p>Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results.</p>	<p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Taking measurements, using a range of scientific equipment, with increasing accuracy and precision.</p> <p>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs.</p> <p>Using test results to make predictions to set up further comparative and fair tests.</p> <p>Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results.</p> <p>Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results. Identifying scientific evidence that has been used to support or refute ideas or arguments.</p>
<p style="text-align: center;"><u>KNOWLEDGE</u></p> <p>Animals Including Humans</p>	<p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p> <p>Describe and compare the</p>	<p>Understand that animals have offspring which grow into adults.</p> <p>Describe the basic needs of animals, including humans, for survival.</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p>	<p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p> <p>Identify that animals, including humans, need the right types and amount of nutrition, and they cannot make their own food; they get nutrition from what they eat.</p>	<p>Describe the simple functions of the basic parts of the digestive system in humans.</p> <p>Identify the different types of teeth in humans and their simple functions.</p> <p>Construct and interpret a variety of food chains, identifying producers, predators and prey</p>	<p>Describe the changes as humans develop into old age.</p>	<p>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</p> <p>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</p>

	<p>structure of a variety of common animals.</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.</p>					Describe the ways in which nutrients and water are transported within animals, including humans
Materials	<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.</p> <p>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>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>Describe how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>			<p>Compare and group together everyday materials on the basis of their properties. Recognise that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.</p> <p>Give reasons for the particular uses of everyday materials.</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes. Explain that some changes are irreversible.</p>	
Plants	<p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</p> <p>Identify and describe the basic structure of a variety of common flowering plants, including trees</p> <p>Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.</p>	<p>Observe and describe how seeds and bulbs grow into mature plants.</p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p>	<p>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.</p> <p>Explore the requirements of plants for life and growth and how they vary from plant to plant. Investigate the way in which water is transported within plants.</p> <p>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p>			
Seasonal Change						
Light			<p>Recognise light is needed in order to see things. Notice that light is reflected from surfaces</p>			<p>Recognise that light appears to travel in straight lines. Use this idea to explain that objects are seen because they give out or reflect light into the eye.</p>

			<p>Recognise that light from the sun can be dangerous.</p> <p>Recognise that shadows are formed when the light from a light source is blocked by a solid object. Find patterns in the way that the size of shadows change.</p>			<p>Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.</p> <p>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>
Electricity				<p>Identify common appliances that run on electricity.</p> <p>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p> <p>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</p> <p>Recognise some common conductors and insulators, and associate metals with being good conductors.</p>		<p>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</p> <p>Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.</p> <p>Use recognised symbols when representing a simple circuit in a diagram.</p>
Forces			<p>Compare how things move on different surfaces. Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance. Observe how magnets attract or repel.</p> <p>Compare materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. Describe magnets as having 2 poles.</p>		<p>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</p> <p>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.</p> <p>Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.</p>	
Rocks			<p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</p>			

			Describe how fossils are formed. Recognise that soils are made from rocks and organic matter.			
Sound				Identify how sounds are made. Recognise that vibrations from sounds travel through a medium to the ear. Find patterns between the pitch of a sound and features of the object that produced it. Find patterns between the volume of a sound and the strength of the vibrations that produced it.		
Earth In Space					Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. Describe the movement of the Moon relative to the Earth. Describe the Sun, Earth and Moon as approximately spherical bodies. Use the idea of the Earth's rotation to explain day and night.	
Evolution and Inheritance					Recognise that living things have changed over time and that fossils provide information about living things from millions of years ago. Recognise that living things produce offspring. Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	