



St Joseph's Catholic Primary School

Science –Progression of Scientific Knowledge

<u>EYFS</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>
Plants 1a 1 Know a variety of local garden plants, and trees 1a 2 Identify and Know the basic structure of a flower and tree	Plants 1a 1 Know a variety of common wild and garden plants, including deciduous and evergreen trees 1a 2 Know the basic structure of a variety of common flowering plants, including trees	Plants 2b1: Know how seeds and bulbs grow into mature plants 2b2: Know how plants need water, light and a suitable temperature to grow and stay healthy.	Plants 3a1: Know the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers 3a2: explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant 3a3: Know how to investigate the way in which water is transported within plants 3a4: explore the part that flowers play in the life cycle of flowering plants, including pollination, seed	Living Things & Their Habitats 4a1: Know that living things can be grouped in a variety of ways 4a2: knowledge of classification keys to help group, Know a variety of living things in their local and wider environment 4a3: Know that environments can change and that this can sometimes pose dangers to living things.	Living Things & Their Habitats 5a1: Know the differences in the life cycles of a mammal, an amphibian, an insect and a bird 5a2: Know the life process of reproduction in some plants and animals.	Living Things & Their Habitats 6a1: Know how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals 6a2: Know how to classify plants and animals based on specific characteristics.



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			formation and seed dispersal.			
Seasonal changes Know the four seasons	Seasonal changes 1d1: know the changes across the four seasons 1d2: Know the weather associated with the seasons and how day length varies	Living Things & Their Habitats 2a1: knowl the differences between things that are living, dead, and things that have never been alive 2a2: Know that most living things live in habitats to which they are suited and Know how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other 2a3: Know a variety of plants and animals in their habitats, including micro-habitats 2a4: Know how animals obtain their food from				Evolution and Inheritance 6c1: Know that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago 6c2: Know that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents 6c3: Know how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution



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		plants and other animals, using the idea of a simple food chain, and Know different sources of food.				
Minibeasts 1b1: Know a variety of common insects	Animals Including Humans 1b1: Know a variety of common animals including fish, amphibians, reptiles, birds and mammals 1b2: Know a variety of common animals that are carnivores, herbivores and omnivores 1b3: Know and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) 1b4: know the basic parts of the human body and	Animals Including Humans 2c1: know that animals, including humans, have offspring which grow into adults 2c2: find out about and Know the basic needs of animals, including humans, for survival (water, food and air) 2c3: Know the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	Animals Including Human 3b1: Know that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat 3b2: Know that humans and some other animals have skeletons and muscles for support, protection and movement.	Animals Including Humans 4b1: Know the simple functions of the basic parts of the digestive system in humans 4b2: identify the different types of teeth in humans and their simple functions 4b3: know a variety of food chains, identifying producers, predators and prey.	Animals Including Humans 5b1: Know the changes as humans develop to old age	Animals Including Humans 6b1: Know the main parts of the human circulatory system, and Know the functions of the heart, blood vessels and blood 6b2: Know the impact of diet, exercise, drugs and lifestyle on the way their bodies function 6b3: Know the ways in which nutrients and water are transported within animals, including humans.



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	say what part of the body is associated with which sense					
<p>Materials</p> <p>Know a variety of everyday materials and explore their properties</p>	<p>Everyday materials</p> <p>1c1: know that object and the material from which it is made</p> <p>1c2: Know a variety of everyday materials, including wood, plastic, glass, metal, water and rock</p> <p>1c3: Know the simple physical properties of a variety of materials</p> <p>1c4: know a variety of everyday materials on the basis of their simple physical properties</p>	<p>Uses of Everyday Materials</p> <p>2d1: know that a suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>2d2: know how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p>Rocks</p> <p>3c1: know the different kinds of rocks on the basis of their appearance and simple physical properties</p> <p>3c2: Know in simple terms how fossils are formed when things that have lived are trapped within rock</p> <p>3c3: Know that soils are made from rocks and organic matter.</p>	<p>States of Matter</p> <p>4c1: know that group materials together, according to whether they are solids, liquids or gases</p> <p>4c2: know that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius</p> <p>4c3: know the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	<p>Properties & Changes of Materials</p> <p>5c1: know that group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets</p> <p>5c2: know that some materials will dissolve in liquid to form a solution, and Know how to recover a substance from a solution</p> <p>5c3: use knowledge of solids, liquids and gases to decide how mixtures</p>	



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					<p>might be separated, including through filtering, sieving and evaporating</p> <p>5c4: know what fair tests, for the particular uses of everyday materials, including metals, wood and plastic</p> <p>5c5: know that dissolving, mixing and changes of state are reversible changes</p> <p>5c6: know that changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda</p>	
<u>Light</u>			<u>Light</u>	<u>Sound</u>	<u>Earth Space</u>	<u>Light</u>



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Know different times of the day.			<p>3d1: Know that they need light in order to see things and that dark is the absence of light</p> <p>3d2: know that light is reflected from surfaces</p> <p>3d3: Know that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>3d4: Know that shadows are formed when the light from a light source is blocked by a solid object</p> <p>3d5: know that the size of shadows change.</p>	<p>4d1: know how sounds are made, associating some of them with something vibrating</p> <p>4d2: Know that vibrations from sounds travel through a medium to the ear</p> <p>4d3: know that the pitch of a sound and features of the object that produced it</p> <p>4d4: know that the volume of a sound and the strength of the vibrations that produced it</p> <p>4d5: Know that sounds get fainter as the distance from the sound source increases</p>	<p>5d1: Know the movement of the Earth, and other planets, relative to the Sun in the solar system</p> <p>5d2: Know the movement of the Moon relative to the Earth</p> <p>5d3: Know the Sun, Earth and Moon as approximately spherical bodies</p> <p>5d4: know that the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky</p>	<p>6d1: Know that light appears to travel in straight lines</p> <p>6d2: know the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye</p> <p>6d3: know 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>6d4: know that the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>
			<p>Forces and Magnets</p>	<p>Electricity</p> <p>4e1: identify common</p>	<p>Forces</p> <p>5e1: explain that unsupported</p>	<p>Electricity</p> <p>6e1: associate the brightness of a</p>



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			<p>3e1: know how things move on different surfaces</p> <p>3e2: notice that some forces need contact between two objects, but magnetic forces can act at a distance</p> <p>3e3: know how magnets attract or repel each other and attract some materials and not others</p> <p>3e4: know how to group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials</p> <p>3e5: Know magnets as having two poles</p> <p>3e6: know that two magnets will attract or repel each other, depending on</p>	<p>appliances that run on electricity</p> <p>4e2: know how to construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</p> <p>4e3: know whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery</p> <p>4e4: Know 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>4e5: Know some common conductors and insulators, and associate metals</p>	<p>objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p> <p>5e2: know that the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>5e3: Know that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect</p>	<p>lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</p> <p>6e2: know that a variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches</p> <p>6e3: use Knowledge symbols when representing a simple circuit in a diagram.</p>
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			which poles are facing.	with being good conductors.		
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