



Progression in Science
St Edward's Catholic Primary School

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Animals including Humans	<p>Understanding the world: Early Learning Goal: <i>They make observations of animals and plants and explain why some things occur, and talk about changes</i></p> <p>Describe what I look like.</p> <p>Know the sequence of the human life cycle.</p> <p>Know the names of my body parts.</p> <p>What are the five senses? What do I use sight, hearing, smell, touch and taste for?</p> <p>Understand that some animals are nocturnal.</p>	<p>What are the five senses and how do we use these to find out about the world.</p> <p>Identify and name common animals. (fish, amphibians, reptiles, birds and mammals)</p> <p>Identify and name common animals (carnivores, herbivores and omnivores)</p> <p>Describe and compare the structure of common animals.</p>	<p>How do humans keep healthy? (exercise, food, hygiene)</p> <p>What are the basic needs for survival? (water, food, air)</p>	<p>Animals including humans need the right amount of nutrition</p> <p>Animals including humans get their nutrition from what they eat.</p> <p>Why do we have a skeleton and what does it protect?</p> <p>How do animals move their muscles?</p> <p>How do muscles work?</p>	<p>What are the simple functions of the basic parts of the digestive system in humans?</p> <p>What are the different types of teeth in a human and what are their simple functions.</p> <p>Construct and interpret a variety of food chains.</p> <p>Identify producers, predators and prey.</p>	<p>What are the changes as humans develop to old age?</p>	<p>What are the main parts of the human circulatory system?</p> <p>What are the functions of the heart, blood vessels and blood?</p> <p>What is the impact of diet, exercise, drugs and lifestyle on the way the body functions?</p> <p>What ways are nutrients and water transported within animals, including humans?</p>
Vocabulary	<p>Family, baby, toddler, child, teenager, adult, elderly person, names of senses, names of body parts</p> <p>Nocturnal, owl, bat, fox, badger, mole, hedgehogs, hamsters</p>	<p>Birds, fish, amphibians, reptiles, mammals and invertebrates. Feathers, scales, gills, fins, hair, land, water, backbone, skeleton. Carnivores, herbivores, omnivores. Meat, plants,</p>	<p>Survival, water, air, food, adult, baby, offspring, kitten, calf, puppy, exercise, hygiene</p>	<p>Movement, muscles, bones, skull, nutrition, skeletons</p>	<p>Mouth, tongue, teeth, oesophagus, stomach, small intestine, large intestine, herbivore, carnivore, canine, molar, incisor</p>	<p>Foetus, embryo, womb, gestation, baby, toddler, teenager, elderly, growth, development, puberty</p>	<p>Circulatory, hear, blood vessels, veins, arteries, oxygenated, deoxygenated, valve, exercise, respiration</p>
Plants	<p>What do plants need to grow?</p> <p>Name common garden fruit and vegetables.</p>	<p>Can you name the parts of a flowering plant and trees?</p>	<p>How do seeds and bulbs grow into mature plants?</p>	<p>Explore the part the flower plays in the life cycle of flowering plants including pollination,</p>			



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	Investigate leaves with a magnifying glass.	<p>What do plants need to grow well?</p> <p>What plants can you find by our school?</p> <p>Can you identify and name common wild and garden plants (deciduous and evergreen trees)</p>	Find out and describe how plants need water, light and suitable temperature to grow and stay healthy	<p>seed formation and seed dispersal.</p> <p>How is water transported through the plant?</p> <p>What are the requirements of plants for life and growth (air, light, water, nutrients from soil and room to grow)</p> <p>How can this vary from plant to plant?</p> <p>What is the job of roots, leaves and stems/trunk and flowers</p>			
Vocabulary	Seed, soil, water, sunlight, roots, stem, leaves, flower, bulb, lettuce, tomato, cucumber, potato, carrot, cauliflower, broccoli, apple, pear, orange, banana	Deciduous, Evergreen trees, Leaves, Flowers (blossom), Petals, Fruit, Roots, Bulb, Seed, Trunk, Branches, Stem	Seeds, Bulbs, Water, Light, Temperature, Growth	Air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower			
Living things and their habitats	<p>Understand that there are different types of environment e.g. rainforest, desert, urban.</p> <p>Understand that animals change as they grow.</p>		<p>Identify/name plants and animals including microhabitats.</p> <p>How can we sort living, dead and never been alive things?</p> <p>Describe how animals get food – food chain.</p>		<p>Recognise that living things can be grouped in a variety of ways.</p> <p>How do I use a key to identify local plants and animals?</p> <p>That environments can change and that this can</p>	<p>What is the difference between the life cycles of a mammal, an amphibian, and insect and a bird?</p> <p>Describe the life process of reproduction in some plants and animals.</p>	Describe 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.



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	Name and describe farm animals and their young.		What are the similarities and differences between local habitats and how does it affect the animals and plants that live there?		sometimes pose dangers to living things. What ways can we protect living things and the environment?		What are the reasons for classifying plants and animals (specific characteristics)
Vocabulary	Desert, rainforest, city, town, savannah, arctic, farmland, woodland, marine, environment, trees, grass, sand, mountains, ocean, Caterpillars, cocoons, hatch, wings, butterflies, antennae, eggs, shells, peck, beak, chicks, chicken		Living, Dead, Habitat, Energy, Food chain, Predator, Prey, Woodland, Pond, Desert		Vertebrates, Fish, Amphibians, Reptiles, Birds, Mammals, Invertebrates, Snails, Slugs, Worms, Spiders, Insects, Environment, Habitats	Mammal, Reproduction, Insect, Amphibian, Bird, Offspring	Classification, Vertebrates, Invertebrates, Microorganisms, Amphibians, Reptiles, Mammals, Insects
Seasonal Change		Observe changes across the four seasons. Observe and describe weather associated with the seasons Observe and describe how the day length varies based on the season					
Vocabulary		Summer, Spring, Autumn, Winter, Sun, Day, Moon, Night, Light, Dark					
Evolution and Inheritance							How do living things change over time?

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							<p>What information does a fossil provide? (information about living things that inhabited the Earth millions of years ago)</p> <p>Living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p> <p>How do animals and plants adapt to suit their environment?</p> <p>How does adaptation lead to evolution?</p>
Vocabulary							<p>Fossils, Adaptation, Evolution, Characteristics, Reproduction, Genetics</p>
Materials		<p>Distinguish between an object and the material from which it is made.</p> <p>Identify and name a variety of everyday materials including wood, plastic, glass, metal, water and rock.</p> <p>To describe the simple physical properties of a variety of everyday materials</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>Find out how the shapes of solid objects made from some materials can be changed by squashing,</p>			<p>Compare and group together everyday materials on the basis of the properties including hardness, solubility, transparency, conductivity (electricity and thermal) and response to magnets.</p> <p>Some materials will dissolve in liquid to form a solution, and describe how to recover</p>	



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		Compare and group together a variety of everyday materials based on their simple properties.	bending, twisting and stretching.			<p>a substance from a solution.</p> <p>Separate solids, liquids and gases through filtering, sieving and evaporating.</p> <p>Give reasons, based on evidence from comparative and fair tests, for the particular use of everyday materials including wood, plastic and metals.</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes.</p> <p>Some changes result in the formation of new materials.</p> <p>Changes associated with burning and the action of acid on bicarbonate of soda are irreversible</p>	
Vocabulary		Wood, Plastic, Glass, Paper, Water, Metal, Rock, Hard, Soft, Bendy, Rough, Smooth	Hard, Soft, Stretchy, Stiff, Shiny, Dull, Rough, Smooth, Bendy, Waterproof, Absorbent, Opaque, Transparent Brick, Paper, Fabrics, Squashing, Bending, Twisting, Stretching			Hardness, Solubility, Transparency, Conductivity, Magnetic, Filter, Evaporation, Dissolving, Mixing	

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			Elastic, Foil				
States of Matter					<p>Compare and group materials together according to whether they are solids, liquids or gases</p> <p>How do some materials change state when they are heated or cooled?</p> <p>I can measure or research the temperature at which this change happens in degree Celsius</p> <p>Identify the part played by evaporation and condensation in the water cycle Associate the rate of evaporation with temperature.</p>		
Vocabulary					Solid, Liquid, Gas, Evaporation, Condensation, Particles, Temperature, Freezing, Heating		
Forces		<p>How do objects move?</p> <p>How do you stop or slow down an object?</p>	<p>What are pushes and pulls?</p> <p>How can we control speed, direction of an object?</p> <p>How do they effect an object – can pushes and</p>	<p>Compare how things move on different surfaces</p> <p>Some forces need contact between two objects but magnetic forces can act at a distance</p>		<p>Why do unsupported objects fall towards the Earth (forces of gravity)</p> <p>What are the effects of air resistance, water resistance and friction on moving surfaces?</p>	



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			pulls change the shape of objects?	<p>Magnets can attract, repel each other and have two poles.</p> <p>That magnets can attract some materials and not others</p> <p>Predict whether two magnets will attract or repel each other based on which poles are facing</p> <p>Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet</p> <p>Identify some magnetic materials</p>		That some mechanicalness, including levers, pulleys and gears, allow a smaller force to have a greater effect.	
Vocabulary				Magnetic, Force, Contact, Attract, Repel, Friction, Poles, Push, Pull		Air resistance, Water resistance, Friction, Gravity, Newton, Gears, Pulleys	
Rocks				<p>Compare and group together different kinds of rocks based on appearance and simple physical properties.</p> <p>Describe in simple terms how fossils are formed when things have lived and then are trapped within rock.</p>			

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				Recognise that soils are made from rocks and organic matter.		
Vocabulary				Fossils, Soils, Sandstone, Granite, Marble, Pumice, Crystals, Absorbent		
Electricity				<p>What common appliances run on electricity Construct a simple series circuit Identify the different parts to a circuit including cell, wires, bulbs, switches and buzzers</p> <p>Identify whether 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>How does a switch work and will this light the lamp in the simple series circuit?</p> <p>What are the common conductors and isolators?</p> <p>Are metals good conductors?</p>		<p>How does the number and voltage of cells effect the brightness of a lamp or the volume of a buzzer?</p> <p>Compare and give reasons for variations in how components function including brightness of bulb, loudness of buzzer, on/off position of switches.</p> <p>Recognise symbols when representing a simple circuit in a diagram.</p>
Vocabulary				Cells, Wires, Bulbs, Switches, Buzzers,		Cells, Wires, Bulbs, Switches, Buzzers,



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					Battery, Circuit, Series, Conductors, Insulators		Battery, Circuit, Series, Conductors, Insulators, Amps, Volts, Cell
Earth and Space						<p>Describe the movement of the earth and other planets, relative to the Sun in the solar system</p> <p>Describe the movement of the Moon relative to the Earth Describe the Sun, Earth and Moon as approximately spherical bodies</p> <p>Why does the sun seem to move across the sky, rising in the East and setting in the West</p> <p>Why do we have day time and night time?</p>	
Vocabulary						Earth, Sun, Moon, Axis, Rotation, Day, Night, Phases of the Moon, star, constellation	
Sound					<p>How are sounds made? (vibration)</p> <p>Vibrations travel through a medium to the ear</p> <p>Find patterns between the volume of a sound and the strength of the vibration</p>		

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					Find patterns between the pitch of a sound and features of the object that produces it		
					What happens to sound as the distance from the sound source increases?		
Vocabulary					Volume, Vibration, Wave, Pitch, Tone, Speaker		
Light	<p>Know that we get light from the sun and other sources (fire, electricity)</p> <p>Understand we must protect our eyes.</p> <p>Understand that a shadow is made when an object moves in front of a light source.</p>			<p>Recognise the need for light to see things and that dark is the absence of light?</p> <p>Light is reflected from surfaces</p> <p>Light from the sun can be dangerous and that there are ways to protect your eyes.</p> <p>Shadows are formed when the light from light sources is blocked by a solid object.</p>			<p>What direction does light travel?</p> <p>Objects are seen because they give out or reflect light into the eye.</p> <p>How do we see things? (light travels from light sources to our eyes or from light sources to objects then to our eyes)</p> <p>Understand that light travels in straight lines which explain why shadows have the same shape as the object that cast them.</p>
Vocabulary	Light, dark, sun, planet, rays, night and day, reflection, fire, shadow			Light, Shadows, Mirror, Reflective, Dark, Reflection			Refraction, Reflection, Light, Spectrum, Rainbow, Colour,