



St Katherine's School & Nursery Science Curriculum



	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Nursery/ Reception	ELG: The Natural World <ul style="list-style-type: none"> Explore the natural world around them, making observations and drawing pictures of animals and plants. 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. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. Continuous Provision: plants in outside area, sand, water, role play kitchen inside/outside, season display, wooden blocks.					
Year 1	Seasonal Changes Observe changes across the four season. Observe and describe the weather associated with the seasons and know how the day length varies.					
	Animals Humans – Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense	Animals Animals – Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Identify and name a range of common animals that are carnivores, herbivores and omnivores. Describe and compare the structure of a variety of common animals including pets.	Materials Distinguish between an object and the material it is made from. Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock	Materials Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials based on their simple physical properties	Plants Identify and name a variety of common wild and garden plants including deciduous and evergreen trees.	Plants Identify and describe the basic structure of a variety of common flowering plants including trees
Year 2	Materials Investigate and compare the suitability of a variety of everyday materials including wood, glass, metal, plastic, brick, rock and paper. Find out how the shapes of some materials can be changed	Animals including Humans Notice that animals including humans have offspring which grow into adults. Find out about and describe the basic needs of animals including humans to survive. Describe the importance to humans of exercise, eating the right amount of different types of food and hygiene.		Plants Observe and describe how seeds and bulbs grow into mature plants. Find out and describe how plants need water, light and suitable temperatures to grow and stay healthy	Materials Revisit and build on knowledge from term 1.	Living things and their habitats Explore and compare the difference between things that are living, dead and have never been alive. Notice that most living things live in habitats which are suited to them. Identify and name a variety of animals and plants in their habitats. Describe how animals obtain their food from plants and other animals
Year 3	Sound Identify how sounds are made, associating some of them with something vibrating, recognise that vibrations from sounds travel through a medium to	Rocks and Soil Compare and group together different kinds of rocks based on their appearance and simple physical properties. Describe in simple terms how fossils	Forces Compare how things move on different surfaces. Notice that some forces need contact between two objects.	Magnets Know that magnetic forces can act at a distance. Observe how magnets attract or repel each other and attract some materials but not others. Compare	Plants Identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers. Explain the requirement of plants for growth and life.	Animals Identify that animals, including human, need the right types of and amount of nutrition and that they cannot make their own food. Identify that human and



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	the ear. Find patterns between the pitch of sound and features of the object that produced it. Recognise that sounds get fainter the further yiu are from the source.	are formed when things that have lived are trapped within rocks. Recognise that soils are made from rocks and organic matter.		and group together a variety of everyday materials on the basis of whether they are attracted to a magnet. Describe magnets as having 2 poles. Predict whether 2 magnets will attract or repel each other based on which poles are facing each other.	(air, water, nutrients and room to grow) and how they vary from plant to plant. Investigate the way in which water is transported through plants. Explain the part that flowers play in the life cycle of a plant.	some other animals have skeleton sand muscles for support, protection and movement.
Year 4	Light Recognise that we need light in order to see things and that dark is the absence of light Recognise that light from the sun can be dangerous and that there are ways to protect the eyes. Recognise that shadows are formed when light is blocked by an opaque object. Find patterns in the way that the size of shadows change. Recognise that light appears to travel in straight lines. .	Electricity Identify common appliance, construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. Identify 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. Recognise that a switch opens and closed a circuit and associate this with whether or not a bulb will light. Recognise some common conductors and insulators.	States if Matter Compare and group materials together according to whether they are solids, liquids or gases. Observe that some materials change state when they are heated or cooled and measure or research temperatures at which this happens. Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	Human anatomy Describe the simple function of the basic parts of the digestive system in humans. Identify the different types of teeth in human and their simple functions.	Animals Construct and interpret variety of food chains, identifying producers, predators and prey. Recognise that environments can change and that this can sometimes pose dangers t living things,	Humans Recognise that living things can be grouped in a variety of ways. Explore and use classification keys to help group and name a variety of living thing in their local and wider environment.
Year 5	Forces and gravity Explain that unsupported object fall towards the Earth because of the force of gravity acting between the Earth and the falling object. Identify the effect o air resistance, water resistance and friction that act between moving surfaces. Recognise that some mechanisms, including levers, pulleys and gears allow a smaller force to have a greater impact.	Earth and Space Observe the movements 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 roughly spherical bodies. Use the idea of the Earth’s rotation to explain day and night and the apparent movement of the sun across the sky.	Materials Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution. Use knowledge of solids=, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Demonstrate that dissolving, mixing and changes of state are reversible changes. Explain that some changes result in the formation of a new materials and that this kid of change is an irreversible change, including change associated with burning and the action of acid on bicarbonate of soda.		Living things . Recognise that living things produce offspring but that normally offspring are not identical to their parent. Describe the process of reproduction in some plants	Humans Describe the differences in the life cycles of a mammal, amphibian, insect and bird. Describe the changes as humans develop to old age.



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Year 6	<p>Electricity</p> <p>Associate the brightness of a bulb or the volume of a buzzer with the number and voltage of cells used in the circuit. 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 a switch. Use recognised symbols when representing a simple circuit in a diagram.</p>	<p>Light</p> <p>Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. Explain that we see things because light travels from light source to our eyes or from light sources to objects and then to your eyes. Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>	<p>Diet and lifestyle habits</p> <p>Identify and name the main parts of the human circulatory system and describe the function of the heart, blood vessels and blood. Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Describe the ways in which nutrients are transported within animals including humans.</p>	<p>Evolution and inheritance</p> <p>Describe in simple terms how fossils are formed where things that have lived are trapped in rocks. Recognise that living things have changed over time and that fossils contain information about the past. Identify how animals and plants are adapted to their environment in different ways and that adaptations may lead to evolution.</p>	<p>Classification of living things</p> <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. Give reasons for classifying plants and animals based on specific characteristics.</p> <p>Reproduction Describe the life process of reproduction in some animals.</p>
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