



LEARNING TO LOVE, LOVING TO LEARN

Science Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	<p>My Community</p> <p>The Natural World: I can talk about things I have observed in the natural world such a trees, animals, water. I can start to ask questions about aspects of my familiar world such as the place where I live or the natural world. I can use my understanding of the senses to explore the natural world.</p>	<p>Celebrations</p> <p>The Natural World: I can understand the need to respect and care for the environment. I understand the effects of changing seasons on the world around me. I can plant seeds and show care for growing plants. I can start to explain the life cycle of a plant.</p>	<p>Space!</p> <p>The Natural World: I can listen to children describing and commenting on things they have seen whilst outside, including plants and animals. I can explore and explain the different forces I can feel. I can explore different materials with similar/different properties.</p>	<p>People who help us</p> <p>The Natural World: I can tell you what a plant needs to grow (growing the beanstalk). I can understand the key features of the life cycle of a plant and animal I can talk about what I can see and observe using recently introduced vocabulary.</p>	<p>Minibeasts!</p> <p>The Natural World: I can show care and concern for living things in the environment I can start to develop an understanding of growth, decay and changes over time I can talk about some of the things I have observed such as plants, animals, natural and found objects.</p>	<p>Traditional Tales</p> <p>The Natural World: I can explore the natural world around me, making observations and drawing pictures of animals and plants. I can recognize similarities and differences between a range of environments drawing on my own experience. I can understand important processes of change in the natural world. I can name the parts of the body that you can see and which one is used for each of the 5 senses.</p>
Year 1	<p>My wonderful senses</p> <p>Seasonal changes</p> <p>Observe changes across the 4 seasons</p> <p>Observe and describe weather associated with the seasons and how day length varies</p>	<p>Santa's secret workshop</p> <p>Seasonal changes</p> <p>Observe changes across the 4 seasons</p> <p>Observe and describe weather associated with the seasons and how day length varies</p>	<p>Animal magic</p> <p>Animal including humans</p> <ul style="list-style-type: none"> •Name common animals, fish amphibians, reptiles, birds and mammals. •Identify and name a variety of common animals that are carnivores, herbivores and omnivores. •Describe and compare common animals. 	<p>Pirate life</p> <p>Everyday Materials</p> <ul style="list-style-type: none"> •Distinguish between an object and the material from which it is made. •Describe the simple physical properties of a variety of everyday material. •Compare and group together a variety of everyday materials on the basis of their simple physical properties 	<p>Mega Structures</p> <p>Everyday Materials</p> <ul style="list-style-type: none"> •Distinguish between an object and the material from which it is made. •Identify and name a variety of everyday material, including wood plastic, glass, metal,water and rock. •Describe the simple physical properties of a variety of everyday material. •Compare and group together a variety of everyday materials 	<p>Plant life</p> <p>Plants</p> <ul style="list-style-type: none"> -Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies. -Identify and name common plants including wild and garden, deciduous and evergreen trees. -Identify and describe the basic structures of plants /trees.



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					<p>on the basis of their simple physical properties.</p> <ul style="list-style-type: none"> •Observe closely using simple equipment. •Perform simple tests (compare everyday materials according to their strength, water resistance etc.) •Identify and classify. •Gather and record data to help answer questions 	<ul style="list-style-type: none"> -Observe closely using simple equipment. -Use observations and ideas to answer questions. -Gather and record data to answer questions.
Year 2	<p>The great fire of London</p> <p>Uses of everyday materials</p> <ul style="list-style-type: none"> -Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. -Find out how the shapes of solid object made from materials can change by bending, twisting and stretching. 	<p>Space adventures</p> <p>Uses of everyday materials</p> <ul style="list-style-type: none"> -Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. -Find out how the shapes of solid object made from materials can change by bending, twisting and stretching. 	<p>Castles</p> <p>Living things and their habitats</p> <ul style="list-style-type: none"> -Explore and compare the differences between things that are living, dead and that have never been alive. (Link to skeletons of dinosaurs and their ancestors). -Notice that animals in have offspring and grow into adults. (Reptile reproduction and growth) -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. 	<p>Castles</p> <p>Living things and their habitats</p> <ul style="list-style-type: none"> -Explore and compare the differences between things that are living, dead and that have never been alive. (Link to skeletons of dinosaurs and their ancestors). -Notice that animals in have offspring and grow into adults. (Reptile reproduction and growth) -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. 	<p>Plants, plants everywhere</p> <p>Plants</p> <ul style="list-style-type: none"> -Observe and describe how seeds and bulbs grow into mature plants. •Find out and describe how plants need water, light and suitable temperature to grow and stay healthy. -Identify and name a variety of plants and animals in their habitats, including micro-habitats -Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, identify and name different sources of food 	<p>What is a hero?</p> <p>Animals including humans</p> <ul style="list-style-type: none"> -Notice how humans grow into adults. Find out about the basic needs of humans for survival. - Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene. -Ask questions and recognise that they can be answered in different ways



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			<p>(Compare the similarities and differences of the habitats of dinosaurs and reptiles and focus on their food chains for survival.)</p> <p>-Ask questions and recognise that they can be answered in different ways.</p> <p>-Identify and classify.</p>	<p>(Compare the similarities and differences of the habitats of dinosaurs and reptiles and focus on their food chains for survival.)</p> <p>-Ask questions and recognise that they can be answered in different ways.</p> <p>-Identify and classify.</p>	<p>-Observe closely using simple equipment.</p> <p>-Use observations and ideas to suggest answers to questions.</p>	
Year 3	<p><u>Unearthing the Egyptians</u></p> <p><u>Rocks</u></p> <p>-Compare and group together different kinds of rocks on the basis of the appearance and simple physical properties. (Texture, colour, density and type, permeable, impermeable igneous, sedimentary, metamorphic rocks etc.)</p> <p>-Describe in simple terms how fossils are formed when things that have lived are trapped within a rock. (fossils and Sedimentary rocks)</p> <p>-Recognise that soils are made from rocks and organic matter (Humus layer, soil layer & bedrock, chalk,</p>	<p><u>Wonderful Wandsworth</u></p> <p><u>Forces and Magnets</u></p> <p>-Compare how things move on different surfaces</p> <p>- Notice that some forces need contact between objects, but magnetic forces can act at a distance.</p> <p>-Observe how magnets attract and repel each other and attract some materials and not others.</p> <p>-Compare and 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><u>Invaders and settlers</u></p> <p><u>Light</u></p> <p>-Recognise that we need light in order to see things and that dark is an absence of light. Notice that light is reflected from surfaces.</p> <p>- Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.</p> <p>-Recognise that shadows are formed when the light from a light source is blocked by an opaque object.</p> <p>-Find patterns in the way that the size of shadows change.</p>	<p><u>Let's be an archaeologist</u></p> <p><u>Animals including humans/ light</u></p> <p>Identify that humans have skeletons and muscles for support; protection and movement (Focus on the similarities and differences of the skeletons of early man compared to modern man).</p> <p>-Recognise that we need light in order to see things and that dark is an absence of light.</p> <p>-Notice that light is reflected from surfaces.</p> <p>-Recognise that light from the sun can be dangerous</p>	<p><u>Food glorious food</u></p> <p><u>Plants</u></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 (air, light, water, nutrients from soil, & room to grow) & 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 a flowering plant, including pollination, seed formation and seed dispersal.</p>	<p><u>Gardener's world</u></p> <p><u>Plants</u></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 (air, light, water, nutrients from soil, & room to grow) & 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 a flowering plant, including pollination, seed formation and seed dispersal.</p>



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	limestone mineral and nutrients, alkaline and acid soils etc.)	<ul style="list-style-type: none"> -Describe magnets as having two poles. -Predict whether two magnets will attract or repel each other, depending on which poles are facing. 		<ul style="list-style-type: none"> and that there are ways to protect their eyes.- -Recognise that shadows are formed when the light from a light source is blocked by an opaque object. Find patterns in the way that the size of shadows change. 	<ul style="list-style-type: none"> -Identify 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. 	<ul style="list-style-type: none"> -Identify 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.
Year 4	<p><u>The sounds of Tudor life</u></p> <p><u>Sound</u></p> <p>Identify how sounds are made, associating some of them with something vibrating.</p> <ul style="list-style-type: none"> - 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 vibration that produced it. -Recognise that sounds get fainter as the distance from the sound source increases. 	<p><u>It's cold and dark outside</u></p> <p><u>Electricity</u></p> <p>Identify that common appliance that run on electricity</p> <ul style="list-style-type: none"> - 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 closes a circuit and associate this with whether or not a lamp lights in a simple series circuit 	<p><u>Introducing the Romans</u></p> <p><u>States of Matter</u></p> <p>Compare and group materials together, according to whether they are solids, liquids or gases.</p> <ul style="list-style-type: none"> -Observe 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><u>Precious Amazonians</u></p> <p><u>States of Matter</u></p> <p>Compare and group materials together, according to whether they are solids, liquids or gases.</p> <ul style="list-style-type: none"> -Observe that some materials change state when they are heated or cooled and measure or research the temperature at which this happens in degrees Celsius. - Identify that part played by evaporation and condensation in the water cycle and associate the rate of 	<p><u>Our wonderful bodies</u></p> <p><u>Animals including humans</u></p> <p>describe the simple functions of the basic parts of the digestive system in humans identify the different types of teeth in humans and their simple functions construct and interpret a variety of food chains, identifying producers, predators and prey</p>	<p><u>Habitats</u></p> <p><u>Habitats</u></p> <p>Recognise that living thing can be grouped in a variety of ways.</p> <ul style="list-style-type: none"> -Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. -Recognise that environments can change and that this can sometimes pose dangers to living things.



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		-Recognise some common conductors and insulators and associate metals with being good conductors.		evaporation with temperature.		
Year 5	<p><u>War Horse</u></p> <p><u>Forces</u></p> <p>-Recognise that some mechanisms, including levers, pulleys and gears, allow a small force to have a greater effect</p>	<p><u>Earth and spaces</u></p> <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.</p> <p>-Describe the Sun, Earth and Moon as approximately spherical bodies.</p> <p>- Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</p> <p>-Explain that un-supportive objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object (make a pressurised water rocket)</p>	<p><u>Ancient Greece</u></p> <p><u>Forces</u></p> <p>Recognise that some mechanisms including levers, pulleys and gears, allow a smaller force to have greater effect (Relate to Greek inventions e.g. Archimedes' screw, water mill etc)</p>	<p><u>Our watery world</u></p> <p><u>Properties and changes of materials</u></p> <p>-Compare and 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>-Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.</p> <p>-Use knowledge of solids, liquids and gasses to decide how mixtures might be separated, including through filtering sieving and evaporating.</p> <p>-Give reasons based on evidence from comparative and fair tests, for the</p>	<p><u>Victorians</u></p> <p><u>Living things and their habitat</u></p> <p>-Describe the changes as humans develop to old age.</p> <p>- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird Describe the life processes of reproduction in some plants and animals</p>	<p><u>Healthy living</u></p> <p><u>Living things and their habitat</u></p> <p>Describe the changes as humans develop to old age.</p> <p>- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird Describe the life processes of reproduction in some plants and animals</p>



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				<p>particular uses of everyday materials, including metals, wood and plastic.</p> <p>-Demonstrate that dissolving, mixing and changes of state are reversible changes.</p> <p>---Explain that some 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>		
Year 6	<p>The angry earth</p> <p>Living things and their habitat</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</p>	<p>Light</p> <p>Recognise that light appears to travel in straight lines.</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 eyes.</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>Adaptation: A life of change</p> <p>Evolution and inheritance</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>World war 2</p> <p>Electricity</p> <p>Associate the volume of a buzzer with the number and voltage of cells used in the circuit (make a simple Morse code machine using buzzers)</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>Inspirational people</p> <p>Animals including humans</p> <p>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>-Recognise the impact in which nutrients and water are transported</p>	<p>The body machine</p> <p>Animals including humans</p> <p>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>-Recognise the impact in which nutrients and water are transported within animals, including humans</p>



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	<p>give reasons for classifying plants and animals based on specific characteristics</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> <p>-</p>	<p>-Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</p> <p>-Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p> <p>-Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>	<p>-Use recognised symbols when representing a simple circuit diagram.</p>	<p>within animals, including humans</p>	
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