

SCIENCE CURRICULUM

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Hunting and Hiding		Me and my wonderful world		Beside the sea	
	Plants, animals including humans ~ woodland animals Seasonal changes ~ autumn, winter		Animals, including humans ~ all about me and my body Materials~ sorting and classifying Seasonal changes ~ winter, spring		Animals, including humans Plants ~ Materials~linked to DT Seasonal changes ~ spring, summer	
	<p>Identify and name a variety of common plants, including garden plants, wild plants and trees, and those classified as deciduous and evergreen.</p> <p>Identify and name common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates.</p> <p>Describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, and including pets).</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p> <p>Observe changes across the four seasons.</p> <p>Observe and describe weather associated with the seasons and how day length varies.</p>		<p>Identify and name a variety of common plants, including garden plants, wild plants and trees, and those classified as deciduous and evergreen.</p> <p>Identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers.</p> <p>Identify and name common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates.</p> <p>Describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, and including pets).</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</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> <p>Observe changes across the four seasons.</p> <p>Observe and describe weather associated with the seasons and how day length varies.</p> <p>Describe the simple physical properties of a variety of everyday materials.</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p>		<p>Identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers.</p> <p>Describe the simple physical properties of a variety of everyday materials.</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p>Observe changes across the four seasons.</p>	

	<p>Plants ~ planting bulbs Animals, including humans ~ needs of a knight Uses of everyday materials~ how to keep an egg warm, materials used to build castles</p>	<p>Living things and their habitats ~ animal needs Plants ~ polar plants, monitoring bulbs Animals, including humans ~ needs of explorer, polar animals, balanced diet Uses of everyday materials ~ How materials change(heating and cooling) Fitness investigation Plant bulb investigation ~ temperature</p>	<p>Living things and their habitats~ mini beasts Plants ~ bean investigation Animals, including humans ~ mini beasts. Life cycles, food chains. Uses of everyday materials ~ Electricity</p>
	<p>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p>	<p>Explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p>Notice that animals, including humans, have offspring which grow into adults.</p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> <p>Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</p> <p>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</p> <p>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> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats.</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p>	<p>Explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p>Notice that animals, including humans, have offspring which grow into adults.</p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> <p>Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</p> <p>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</p> <p>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. (X2)</p> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats.</p>

Year 3	Rumble in the jungle	Passport to Europe	Invasions
	<p>Plants, including pollination, plan investigation (light effect), water transportation Animals ~ habitats linked to rainforest, nutrition, skeleton & muscles.</p>	<p>Forces ~ magnets Light Food and nutrition</p>	<p>Forces Animals including humans ~ nutrition of Roman soldier Rocks and fossils</p>
	<p>Identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers.</p> <p>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.</p> <p>Investigate the way in which water is transported within plants.</p> <p>Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p> <p>Identify that humans and some 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 that they cannot make their own food; they get nutrition from what they eat.</p>	<p>Compare and group together different kinds of rocks on the basis of their simple physical properties.</p> <p>Recognise that soils are made from rocks and organic matter.</p> <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</p> <p>Notice that some forces need contact between two objects, but magnetic forces can act at a distance.</p> <p>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.</p> <p>Compare how things move on different surfaces. C.C.- seasonality D.T.</p>	<p>Recognise that they need light in order to see things and that dark is the absence of light.</p> <p>Notice that light is reflected from surfaces.</p> <p>Recognise that shadows are formed when the light from a light source is blocked by a solid object.</p> <p>Find patterns in the way that the size of the shadows changes.</p> <p>Identify that humans and some 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 that they cannot make their own food; they get nutrition from what they eat.</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>Predict whether two magnets will attract or repel each other, depending on which poles are facing.</p> <p>Describe magnets as having two poles.</p> <p>Observe how magnets attract or repel each other and attract some materials and not others.</p>

Year 4	Walk Like An Egyptian	Born in the USA Mighty Mountains and Raging Rivers	Invaders and Settlers (Vikings and Saxons) Cool to be Me
	Electricity (Investigation) Sound investigation	States of Matter - Water cycle Investigation Living things – changing environment	Animals (including humans) Digestive system, teeth, food chains Teeth investigation
	<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>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</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>Identify how sounds are made, associating some of them with something vibrating.</p> <p>Recognise that vibrations from sounds travel through a medium to the ear.</p> <p>Find patterns between the pitch of a sound and features of the object that produced it</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced it</p> <p>Recognise that sounds get fainter as the distance from the sound source increases.</p>	<p>Compare and group materials together, according to whether they are solids, liquids or gases.</p> <p>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 (°C).</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</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>Recognise that living things can be grouped in a variety of ways.</p> <p>Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things.</p>

Year 5	Astronomical / The Terrible Tudors	Groovy Greeks	London's Calling
	<p data-bbox="411 139 590 164" style="text-align: center;"><u>Earth and Space</u></p> <p data-bbox="249 172 779 228">Describe and explain the movement of the Earth and other planets relative to the Sun.</p> <p data-bbox="249 269 785 326">Describe and explain the movement of the Moon relative to the Earth.</p> <p data-bbox="249 367 772 423">Explain and demonstrate how night and day are created.</p> <p data-bbox="249 464 632 488">Describe the Sun, Earth and Moon.</p> <p data-bbox="464 529 537 553" style="text-align: center;"><u>Forces</u></p> <p data-bbox="249 561 747 618">Explain what gravity is and how it impacts our lives.</p> <p data-bbox="249 659 762 683">Identify and explain the effect of air resistance.</p> <p data-bbox="249 724 795 748">Identify and explain the effect of water resistance.</p> <p data-bbox="249 789 695 813">Identify and explain the effect of friction.</p> <p data-bbox="249 854 737 911">Explain how levers, pulleys and gears allow a smaller force to have a greater effect.</p>	<p data-bbox="957 139 1304 164" style="text-align: center;"><u>Living things and their habitats</u></p> <p data-bbox="873 172 1419 228">Describe the life cycle of different living things e.g. mammal, amphibian, bird, insects.</p> <p data-bbox="873 285 1377 342">Describe the differences between different life cycles.</p> <p data-bbox="873 399 1402 423">Describe the processes of reproduction in plants.</p> <p data-bbox="873 472 1419 496">Describe the processes of reproduction in animals.</p> <p data-bbox="978 545 1283 570" style="text-align: center;"><u>Animals, including humans</u></p> <p data-bbox="873 578 1430 634">Create a timeline to indicate the stages of growth in humans.</p>	<p data-bbox="1587 139 1986 164" style="text-align: center;"><u>Properties and changes of materials</u></p> <p data-bbox="1509 172 1997 261">Compare and group materials based on their properties e.g. solubility, conductivity, transparency.</p> <p data-bbox="1509 302 1997 358">Describe how a material dissolves to form a solution, explaining the process of dissolving.</p> <p data-bbox="1509 399 2018 456">Describe and show how to recover a substance from a solution.</p> <p data-bbox="1509 496 2028 521">Describe how some materials can be separated.</p> <p data-bbox="1509 561 2018 618">Demonstrate how materials can separated e.g. filtering, sieving, evaporating.</p> <p data-bbox="1509 659 2039 716">Understand and demonstrate that some changes are reversible and some are not.</p> <p data-bbox="1509 756 2049 846">Explain how some changes result in the formation of a new material and that this is usually irreversible.</p> <p data-bbox="1509 886 1976 911">Discuss reversible and irreversible changes.</p> <p data-bbox="1509 951 2039 1008">Give evidenced reasons why materials should be used for specific purposes.</p>

Year 6	Extreme Earth		Through the Ages		Marvellous Mayans	Moving On
		<p><u>Living things and their habitats</u> Classify living things into broad groups according to observable characteristics and based on similarities and differences.</p> <p>Describe how living things have been classified.</p> <p>Give reasons for classifying plants and animals in a specific way.</p>	<p><u>Light</u> Explain how light travels.</p> <p>Can explain and demonstrate how we see objects.</p> <p>Explain why shadows have the same shape as the objects that cast them.</p> <p>Explain how simple optical instruments work e.g. a periscope, telescope, mirror, binoculars, magnifying glass etc...</p>	<p><u>Electricity</u> Explain how the number and voltage of cells in a circuit links to the brightness of a lamp or the volume of a buzzer.</p> <p>Can compare and give reasons for why components work and do not work in a circuit.</p> <p>Draw circuit diagrams using correct symbols.</p>	<p><u>Animals, including humans</u> Identify and name the main parts of the human circulatory system.</p> <p>Describe the function of the heart, blood vessels and blood.</p> <p>Discuss the impact of diet, exercise, drugs and lifestyle on health.</p> <p>Describe the ways in which nutrients and water are transported in animals, including humans.</p>	<p><u>Evolution and inheritance</u> Describe how the earth and living things have changed over time.</p> <p>Explain how fossils can be used to find out about the past.</p> <p>Explain about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents)</p> <p>Explain how animals and plants are adapted to suit their environment.</p> <p>Link adaptation over time to evolution. To be able to explain evolution.</p>