



Autumn		Spring	Summer
Working Scientifically skills taught through the exploration of the following content:			
<p>Big Adventure</p> <p>Science NC Coverage: Animals including Humans Focus on Humans</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><b>Comics Can... Challenge: Publish a comic book celebrating heroes and villains from different times and places</b></p> <p>Science NC Coverage: <b>Everyday Materials</b></p> <ul style="list-style-type: none"> <li>Distinguish between an object and the material from which it is made</li> <li>Identify and name a variety of everyday materials</li> <li>Describe the simple physical properties of a variety of everyday materials</li> <li>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul>	<p>Far Far Away</p> <p><i>How can we produce a soundtrack for a traditional tale?</i></p> <p>Science NC Coverage: Plants</p> <ul style="list-style-type: none"> <li>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</li> <li>Identify and describe the basic structure of a variety of common flowering plants, including trees.</li> </ul>	<p>Buckets and Spades</p> <p><i>Plan and design a gallery that brings the seaside to the city</i></p> <p>Science NC Coverage: Animals including Humans Focus on Animals</p> <ul style="list-style-type: none"> <li>Identify and name a variety of common animals</li> <li>Identify and name a variety of common animals that are carnivores, herbivores and omnivores</li> <li>Describe and compare the structure of a variety of common</li> </ul> <p>Seasonal changes</p> <ul style="list-style-type: none"> <li>Observe changes across the four seasons</li> <li>Observe and describe weather associated with the seasons and how day length varies.</li> </ul>



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2	Working Scientifically skills taught through the exploration of the following content:			
	<p>Big Adventure <b>NC Coverage:</b> <i>Living things and their Habitats</i></p> <ul style="list-style-type: none"> <li>Explore and compare the differences between things that are living, dead, and have never been alive</li> <li>identify habitats to which animals are suited and how different habitats provide for the basic needs, and how they depend on each other</li> <li>Identify and name a variety of animals in their habitats, including micro-habitats</li> <li>Describe how animals obtain their food using the idea of a simple food chain, identify different sources of food.</li> </ul>	<p>Sparks will Fly <i>How can we tell the story of fire creatively?</i></p> <p><b>NC Coverage:</b> <i>Animals including Humans</i></p> <ul style="list-style-type: none"> <li>notice that animals, including humans, have offspring which grow into adults</li> <li>find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</li> <li>describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</li> </ul>	<p>Up, Up and Away <i>How can we make something fly?</i></p> <p><b>NC Coverage:</b> <i>Use of Everyday Materials Space</i></p> <ul style="list-style-type: none"> <li>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</li> <li>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</li> </ul>	<p>The Really Rural Show <i>How can we recreate the countryside in our city environment?</i></p> <p><b>NC Coverage:</b> <i>Plants</i></p> <ul style="list-style-type: none"> <li>observe and describe how seeds and bulbs grow into mature plants</li> <li>find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</li> <li>identify and name a variety of plants</li> </ul>



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3	Working Scientifically skills taught through the exploration of the following content:		
	<p>Big adventure <b>NC Coverage:</b> <b>Forces and Magnets</b></p> <ul style="list-style-type: none"> <li>compare how things move on different surfaces</li> <li>notice that some forces need contact between two objects, but magnetic forces can act at a distance</li> <li>observe how magnets attract or repel each other and attract some materials and not others</li> <li>compare and group together a variety of materials by whether they are attracted to a magnet, and identify magnetic materials</li> <li>describe magnets as having two poles</li> <li>predict whether two magnets will attract or repel each other, depending on which poles are facing.</li> </ul>	<p>Around the World in 80 Beats <i>Compose an album of songs of the world</i> <b>NC Coverage:</b> <b>Plants</b></p> <ul style="list-style-type: none"> <li>identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</li> <li>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</li> <li>investigate the way in which water is transported within plants</li> <li>explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</li> </ul>	<p>A Day at the Museum <i>How can we run our own pop-up museum?</i> <b>NC Coverage:</b> <b>Light</b></p> <ul style="list-style-type: none"> <li>recognise that they need light in order to see things and that dark is the absence of light</li> <li>notice that light is reflected from surfaces</li> <li>recognise that light from the sun can be dangerous and that there are ways to protect their eyes</li> <li>recognise that shadows are formed when the light from a light source is blocked by a solid object</li> <li>find patterns in the way that the size of shadows change.</li> </ul>



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<p>Big adventure</p> <p>NC Coverage <u>Animals including Humans</u></p> <p><i>Focus on Animals</i></p> <ul style="list-style-type: none"> <li>Construct and interpret a variety of food chains, identifying producers, predators and prey.</li> </ul>	<p>Bolts n' Bones</p> <p><i>How can we design a fitness program?</i></p> <p>NC Coverage <u>Animals including Humans</u></p> <p><i>Focus on Humans</i></p> <ul style="list-style-type: none"> <li>describe the simple functions of the basic parts of the digestive system in humans</li> <li>identify the different types of teeth in humans and their simple functions</li> </ul>	<p>Time Traveller</p> <p><i>How can you produce a short movie on the history of the world?</i></p> <p>NC Coverage: <u>Living things and their Habitats</u></p> <ul style="list-style-type: none"> <li>recognise that living things can be grouped in a variety of ways</li> <li>explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment</li> <li>recognise that environments can change and that this can sometimes pose dangers to living things.</li> </ul>	<p>Crazy Contraptions</p> <p><i>Can we design and make a product which solves a problem?</i></p> <p>NC Coverage: <u>Sound</u></p> <ul style="list-style-type: none"> <li>identify how sounds are made, associating some of them with something vibrating</li> <li>recognise that vibrations from sounds travel through a medium to the ear</li> <li>find patterns between the pitch of a sound and features of the object that produced it</li> <li>find patterns between the volume of a sound and the strength of the vibrations that produced it</li> <li>recognise that sounds get fainter as the distance from the sound source increases.</li> </ul> <p><u>Electricity</u></p> <ul style="list-style-type: none"> <li>identify common appliances that run on electricity</li> <li>construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</li> <li>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</li> <li>recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</li> <li>recognise some common conductors and insulators, and associate metals with being good conductors.</li> </ul>



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5	Working Scientifically skills taught through the exploration of the following content:			
	<p>Big adventure</p> <p><b>NC Coverage:</b> <b>Living things and their Habitats</b></p> <ul style="list-style-type: none"> <li>describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</li> <li>describe the life process of reproduction in some plants and animals.</li> </ul>	<p>Space - Infinity <i>Design an iPhone App all about space</i></p> <p><b>NC Coverage:</b> <b>Earth and Space</b></p> <ul style="list-style-type: none"> <li>describe the movement of the Earth, and other planets, relative to the Sun in the solar system</li> <li>describe the movement of the Moon relative to the Earth</li> <li>describe the Sun, Earth and Moon as approximately spherical bodies</li> <li>use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</li> </ul> <p><b>Forces (linked to Space)</b></p> <ul style="list-style-type: none"> <li>explain gravity acting between the Earth and the falling object</li> <li>identify the effects of air resistance, water resistance and friction, that act between moving surfaces</li> <li>recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</li> </ul>	<p>Changemakers <i>How can we celebrate our diverse community?</i></p> <p><b>NC Coverage; Animals including Humans</b></p> <p><i>Focus on Humans</i></p> <ul style="list-style-type: none"> <li>describe the changes as humans develop to old age.</li> </ul> <p><b>Year 6 NC Content:</b></p> <ul style="list-style-type: none"> <li>identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</li> <li>recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</li> </ul> <p>describe the ways in which nutrients and water are transported within animals, including humans.</p>	<p><b>NC Coverage:</b> <b>Properties and Changes of Materials</b></p> <ul style="list-style-type: none"> <li>compare and group together everyday materials on the basis of their properties</li> <li>know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</li> <li>use knowledge of solids, liquids and gases to decide how mixtures might be separated</li> <li>give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials</li> <li>demonstrate that dissolving, mixing and changes of state are reversible changes</li> </ul> <p>Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible</p> <p><b>NC Coverage:</b> <b>States of Matter (Year 4 NC)</b></p> <ul style="list-style-type: none"> <li>compare and group materials together, according to whether they are solids, liquids or gases</li> <li>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)</li> <li>identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</li> </ul>



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6	Working Scientifically skills taught through the exploration of the following content:			
	<p>Big adventure NC Coverage: Electricity</p> <p>associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</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>use recognised symbols when representing a simple circuit in a diagram.</p>	<p>Ballot Street</p> <p>Challenge: Produce and launch the next Ballot Street Product</p> <p>NC Coverage: Living things and their Habitats</p> <ul style="list-style-type: none"> <li>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</li> <li>give reasons for classifying plants and animals based on specific characteristics.</li> </ul>	<p>Goblins and Ghouls <i>Create our own chronicles</i></p> <p>NC Coverage: Light</p> <ul style="list-style-type: none"> <li>recognise that light appears to travel in straight lines</li> <li>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</li> <li>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</li> <li>use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</li> </ul>	<p>The Final Countdown <i>How can we set up a VPA events promotion company?</i></p> <p>NC Coverage: Evolution and Inheritance</p> <ul style="list-style-type: none"> <li>recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</li> <li>recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</li> <li>identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</li> </ul>