

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Arthur and the Golden Rope	Cloud tea Monkeys	Firebird	Alice in Wonderland	The Wind in the Willows	Pied Piper
Learning Objective (from DC Pro)	<b><u>Working Scientifically</u></b>					
	1. I can set up simple practical enquiries, comparative and fair tests 2. I can report on findings from enquiries, including oral and written explanations, displays or presentations 3. I can use results to make simple conclusions, make predictions and suggest improvements 4. I can use simple scientific evidence to answer questions or to support my findings					
	<b>Sound</b> <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>	<b>States of Matter</b> <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>	<b>Animals including Humans</b> <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>	<b>Electricity</b> <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>	<b>Living Things and their Habitats</b> <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> <li>•construct and interpret a variety of food chains, identifying producers, predators and prey.</li> </ul>	<b>States of Matter</b> identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.  <b>Electricity</b> <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> </ul>

Skills	<ul style="list-style-type: none"> <li>-Explore everyday phenomena and the relationships between living things and familiar environments.</li> <li>- Raise their own questions about the world around them.</li> <li>- Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used.</li> <li>- Set up simple practical enquiries, comparative and fair tests.</li> <li>- Recognise when a simple fair test is necessary and help to decide how to set it up.</li> <li>- Can think of more than one variable factor.</li> <li>- Record findings using simple scientific language, drawings, labelled diagrams and tables</li> <li>- Can record results in tables and bar charts.</li> <li>- Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.</li> <li>- Can say what I found out, linking cause and effect.</li> <li>Can see a pattern in my results.</li> <li>-Use relevant scientific language.</li> <li>-Use comparative and superlative language</li> </ul>	<ul style="list-style-type: none"> <li>- Raise their own questions about the world around them.</li> <li>-Ask relevant questions and use different types of scientific enquiries to answer them.</li> <li>- Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time.</li> <li>- Learn to use new equipment appropriately (eg data loggers).</li> <li>- Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</li> <li>- Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used.</li> <li>- Record findings using simple scientific language, bar charts and tables.</li> <li>- Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> <li>- Use notes, simple tables and standard units and help to decide how to record and analyse their data.</li> <li>- Can record results in tables and bar charts.</li> <li>-Use relevant scientific language.</li> <li>-Use comparative and superlative language</li> <li>- Can understand there is some risk in science.</li> </ul>	<ul style="list-style-type: none"> <li>- Raise their own questions about the world around them.</li> <li>-Begin to develop their ideas about functions, relationships and interactions.</li> <li>- Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them.</li> <li>- Record findings using simple scientific language, drawings, labelled diagrams.</li> <li>- Identify differences, similarities or changes related to simple scientific ideas and processes. • Identify differences, similarities or changes related to simple scientific ideas and processes.</li> <li>- Talk about criteria for grouping, sorting and classifying and use simple keys.</li> <li>- Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.</li> <li>-Use relevant scientific language.</li> </ul>	<ul style="list-style-type: none"> <li>-Explore everyday phenomena and the relationships between living things and familiar environments</li> <li>-Make some decisions about which types of enquiry will be the best way of answering questions including carrying out simple comparative and fair tests, finding things out using secondary sources.</li> <li>- Record findings using simple scientific language, drawings, labelled diagrams.</li> <li>- Identify differences, similarities or changes related to simple scientific ideas and processes.</li> <li>-Use relevant scientific language.</li> <li>-Use comparative and superlative language</li> <li>- Knows which things in science have made our lives better.</li> <li>- Can understand there is some risk in science.</li> </ul>	<ul style="list-style-type: none"> <li>- Raise their own questions about the world around them.</li> <li>-Begin to develop their ideas about functions, relationships and interactions.</li> <li>- Make some decisions about which types of enquiry will be the best way of answering questions including noticing patterns, grouping and classifying, finding things out using secondary sources.</li> <li>- Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them.</li> <li>- Record findings using simple scientific language, drawings, labelled diagrams, keys.</li> <li>- Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> <li>- Talk about criteria for grouping, sorting and classifying and use simple keys.</li> <li>- Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.</li> <li>-Use relevant scientific language.</li> <li>-Use comparative and superlative language</li> <li>- Knows which things in science have made our lives better.</li> <li>- Can understand there is some risk in science.</li> </ul>	<ul style="list-style-type: none"> <li>-Make some decisions about which types of enquiry will be the best way of answering questions including carrying out simple comparative and fair tests, finding things out using secondary sources.</li> <li>- Set up simple practical enquiries, comparative and fair tests.</li> <li>- Recognise when a simple fair test is necessary and help to decide how to set it up.</li> <li>- Can think of more than one variable factor.</li> <li>- Can see a pattern in my results.</li> <li>- Can say what I found out, linking cause and effect.</li> <li>- Can say how I could make it better.</li> <li>- Can answer questions from what I have found out.</li> <li>-Use relevant scientific language.</li> <li>-Use comparative and superlative language</li> <li>- Knows which things in science have made our lives better.</li> <li>- Can understand there is some risk in science.</li> </ul>
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<p>Sticky Knowledge</p>	<p>A sound wave is vibrations travelling from a sound source. Sound is a type of energy When the size of the vibration (amplitude) increases so does the volume. Faster vibrations cause a higher pitch. Vibrations hit the eardrum which passes them into the inner ear where they are changed into electrical signals that are sent to your brain. Sound travels faster in solid objects because the particles are closer together. Sound cannot travel in a vacuum.</p>	<p>The 3 states of matter are solid, liquid, gas. Particles in a solid are so close together they can only vibrate. Particles in a liquid are close together but can move around each other easily. Particles in a gas are spread out and move around quickly. Boiling changes a liquid into a gas. Melting changes a solid into a liquid. Freezing changes a liquid into a solid. The boiling point of water is 100C The freezing point of water is 0C Water can occur in all 3 states. Condensation is when water vapour is cooled Evaporation happens when water is heated. The 3 stages of the water cycle.</p>	<p>Name the organs involved in the digestive process. Know the function of each organ in the digestive process. Identify and know the function of each type of human teeth. Know the role of each living thing in a food chain. Describe the diet of a carnivore, herbivore and an omnivore. Give suggestions (using their knowledge of human teeth) of the teeth needed by carnivores, omnivores and herbivores.</p>	<p>Difference between mains and battery electricity. Sort materials into conductors and insulators. Name three ways in which we generate electricity and say which are renewable/ non-renewable. Electricity needs a complete circuit. Know the role of switches in a circuit.</p>	<p>Name the 7 life processes - Movement, Respiration, Sensitivity Growth, Reproduction, Excretion Nutrition. Name 3 changes that might happen to an environment. Sort environmental changes into natural and Human-made. Know that environmental changes can be positive and negative. Know how to use a classification key Know the difference between vertebrates and invertebrates. Name 3 invertebrates and 3 vertebrates.</p>	<p>Electricity needs a complete circuit. Know the role of switches in a circuit. Water can occur in all 3 states. Condensation is when water vapour is cooled Evaporation happens when water is heated. The 3 stages of the water cycle.</p>
<p>Vocabulary</p>	<p>Vibration Sound wave Pitch Volume Amplitude Loud Quiet Ear- outer, middle, inner Soundproof Absorbent Vacuum Eardrum Vibrating particles Electrical signals</p>	<p>States of matter Solid Liquid Gas Water vapour Evaporation Condensation precipitation Boiling Melting Freezing Particles Water cycle Water droplets Melting point Freezing point Boiling point</p>	<p>Digest Oesophagus Stomach Small intestine Large intestine Pancreas Duodenum Anus Liver Gall bladder Salivary gland tongue Rectum Canine carnassial Molar Incisor Premolar Wisdom Herbivore Carnivore Omnivore Producer Predator Prey Consumer (primary, secondary, tertiary)</p>	<p>Electricity Lightning static Generate Renewable Solar, hydroelectric, wind Nuclear Geothermal Non-renewable Fossil fuels- coal, oil, natural gas Power stations Pylons transformers Appliances Battery (non /rechargeable) Socket Mains Circuit current Switch Conductor insulator Electrons Positive negative</p>	<p>Organisms Life processes Respiration Sensitivity Growth Reproduction Excretion Nutrition Habitat Species Environment Deforestation Pollution Urbanisation Wildfires Droughts Endangered species Extinct Classification Vertebrates Invertebrates Characteristics</p>	<p>Water vapour Evaporation Condensation Precipitation Water cycle Water droplets Appliances Battery (non /rechargeable) Socket Mains Circuit current Switch Conductor insulator Electrons Positive negative</p>