


























Scientific Enquiry Planning (Year 4)

Content/ Knowledge	<u>Living Things and Habitats</u> -To recognise that living things can be grouped in a variety of ways. -To explore and use classification keys to help group. -Identify and name a variety of living things in the environment. -Recognise that environments can change and this can sometimes pose dangers to living things.	<u>Animals Including Humans</u> - 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.	<u>Sound</u> -Identify how sounds are made, associating some of them with something vibrating. -Recognise that vibrations from sounds travel through a medium to the ear. -Find patterns between the volume of a sound and the strength of the vibrations that produced it. -Recognise that sounds get fainter as the distance from the sound source increases.	<u>Electricity</u> -Identify common appliances that run on electricity. Construct 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 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. Recognise some common conductors and insulators, and associate metals with being good conductors.	<u>States of Matter</u> -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 the temperature at which this happens in degrees Celsius. -Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.
Scientific Enquiry	<p> <u>Comparative and fair testing</u></p> <p> <u>Observation over time</u></p> <p> <u>Pattern seeking</u></p> <p> <u>Identifying, grouping and classifying</u></p> <p>Can we use the classification keys to identify all the animals that we caught pond dipping?</p> <p> <u>Research using secondary sources</u></p> <p>Why are people cutting down the rainforests and what effect does that have?</p>	<p> <u>Comparative and fair testing</u></p> <p>How does the skull circumference of a girl compare to that of a boy?</p> <p> <u>Observation over time</u></p> <p>How does an egg shell change when it is left in cola?</p> <p> <u>Pattern seeking</u></p> <p>Are foods that are high in energy always high in sugar?</p> <p> <u>Identifying, grouping and classifying</u></p> <p>How can we organise teeth into groups?</p> <p> <u>Research using secondary sources</u></p> <p>How do dentists fix broken teeth?</p>	<p> <u>Comparative and fair testing</u></p> <p>Which material is best to use for muffling sound in ear defenders?</p> <p>How does the volume of a drum change as you move further away from it?</p> <p> <u>Observation over time</u></p> <p>When is our classroom the quietest?</p> <p> <u>Pattern seeking</u></p> <p>Is there a link between how loud it is in school and the time of day? If there is a pattern, is it the same in every area of the school?</p> <p> <u>Identifying, grouping and classifying</u></p> <p> <u>Research using secondary sources</u></p> <p>Do all animals have the same hearing range?</p>	<p> <u>Comparative and fair testing</u></p> <p>How does the thickness of a conducting material affect how bright the lamp is?</p> <p>Which metal is the best conductor of electricity?</p> <p>How does the length of a guitar string/tuning fork affect the pitch of the sound?</p> <p> <u>Observation over time</u></p> <p>How long does a battery light a torch for?</p> <p> <u>Pattern seeking</u></p> <p>Which room has the most electrical sockets in a house?</p> <p> <u>Identifying, grouping and classifying</u></p> <p>How would you group these electrical devices based on where the electricity comes from?</p> <p> <u>Research using secondary sources</u></p> <p>How has electricity changed the way we live?</p> <p>How does a light bulb work?</p>	<p> <u>Comparative and fair testing</u></p> <p>Does seawater evaporate quicker than fresh water?</p> <p>How does the surface area of a container of water affect how long it takes to evaporate?</p> <p> <u>Observation over time</u></p> <p>Which material is best for keeping our hot chocolate warm?</p> <p>How does the level of water in a glass change when left on the windowsill?</p> <p> <u>Pattern seeking</u></p> <p>Is there a pattern in how long it takes different sized ice lollies to melt?</p> <p> <u>Identifying, grouping and classifying</u></p> <p>Can you group these materials and objects into solids, liquids, and gases?</p> <p>How would you sort these objects/materials based on their temperature?</p> <p> <u>Research using secondary sources</u></p> <p>What are hurricanes, and why do they happen?</p>