

St Laurence's CE Primary School
Science Long Term Plan
Year: 4



Autumn 1 Electricity	Autumn 2	Spring 1 Sound	Spring 2 Food chains	Summer 1 States of matter	Summer 2 Digestion
Key Content and skills: Knowledge					
<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>Can 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>Recognise that living things can be grouped in a variety of ways.</p> <p>Can 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> <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>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>

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Key Content and skills: Working Scientifically

Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
 Use test results to make predictions to set up further comparative and fair tests.

Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate

Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs,

Report and present findings from enquiries, including conclusions, causal.

Identify scientific evidence relationships and explanations results, explanations of and degree of trust in results, in oral and written forms such as displays and other presentations that has been used to support or refute ideas or arguments.

<u>Vocabulary:</u>	<u>Vocabulary:</u>	<u>Vocabulary:</u>	<u>Vocabulary:</u>	<u>Vocabulary:</u>	<u>Vocabulary:</u>
<p>Energy Conductor insulator switch circuit buzzer wires safety bulb motor cells</p>		<p>Energy Vibration Pitch sound wave volume frequency medium auditory particle sound source ear drum vibrate cochlea hammer anvil stirrup auditory nerve brain amplitude</p>	<p>The natural world Climate weather temperature classify adaptation species invertebrate vertebrate bird reptile mammal amphibian fish habitat</p>	<p>Material Solid liquid gas changing state evaporation condensation water cycle temperature thermometer degrees Celsius (°C)</p>	<p>Anatomy of the human body Carnivore Herbivore canine molar premolar incisor digest producer predator prey decay Mouth Tongue Oesophagus Stomach Intestines</p>

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<p><u>Assessment focus:</u></p> <p>Recognise some common conductors and insulators, and associate metals with being good conductors.</p> <p>Report and present findings from enquiries, including conclusions, causal.</p>	<p><u>Assessment focus:</u></p>	<p><u>Assessment focus:</u></p> <p>Recognise that vibrations from sounds travel through a medium to the ear.</p> <p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Use test results to make predictions to set up further comparative and fair tests.</p>	<p><u>Assessment focus:</u></p> <p>Recognise that living things can be grouped in a variety of ways.</p> <p>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p>	<p><u>Assessment focus:</u></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>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p>	<p><u>Assessment focus:</u></p> <p>Describe the simple functions of the basic parts of the digestive system in humans.</p> <p>Identify scientific evidence relationships and explanations results, explanations of and degree of trust in results, in oral and written forms such as displays and other presentations that has been used to support or refute ideas or arguments.</p>
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