

Year 4	Science	
	Autumn Topic 1: Electricity	Autumn topic 2: Sound
National curriculum statements	<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>	<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>
Retrieval (to support new learning)	Coding workshop with Daresbury Labs	Knowledge of sound, pitch, volume (dynamics) from music
Knowledge statements	<p>Identify a range of appliances that run on electricity.</p> <p>Design and build a simple series circuit using a variety of components.</p> <p>Recognise that a simple series circuit may or may not light a lamp, including use of switches.</p> <p>Explain how materials can be conductors or insulators.</p>	<p>Identify sounds are vibrations that travel through a medium to a receiver (ear, recorder etc.)</p> <p>Identify how pitch changes depending on the properties of an object.</p> <p>Explore how sound gets fainter in proportion to distance.</p>
Vocabulary	Batteries, circuit, bulb, conductor, insulator, switch	Volume, pitch, vibration, medium, sound source
Cultural capital and local resources		

Year 4	Science	
	Spring Topic 1: States of matter	Spring Topic 2: Animals including humans
National curriculum statements	<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>	<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> <li>construct and interpret a variety of food chains, identifying producers, predators and prey</li> </ul>
Retrieval (to support new learning)	Freezing and melting (EYFS) Materials (1 and 2) Water cycle (Year 3)	Animals including humans (year 1, 2, and 3) Living things and their habitats (year 2)
Knowledge statements	Group materials as solids, liquids, and gases. Identify that some materials change state when heated or cooled. Measure or research the temperatures that changes of state occur. Describe the importance of evaporation and condensation within the water cycle.	Identify and describe basic parts of the digestive system. Name types of teeth and describe their functions. Construct food chains and use them to identify producers, predators and prey.
Vocabulary	State, solid, liquid, gas, evaporation, condensation	Digestive system, molar, canine, incisor, producer, predator, consumer
Cultural capital and local resources		

Year 4	Science	
	Summer Topic 1: Living things and their habitats	Summer Topic 2: Living things and their habitats (conservation)
National curriculum statements	<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> </ul>	<ul style="list-style-type: none"> <li>recognise that environments can change and that this can sometimes pose dangers to living things</li> </ul>
Retrieval (to support new learning)	Animals including humans (year 1, 2, and 3) Living things and their habitats (year 2)	Animals including humans (year 1, 2, and 3) Living things and their habitats (year 2) Weather and climate (geography year 1) Climate zones (geography year 3) Living things and their habitats (year 4)
Knowledge statements	Know that living things live in systems called habitats. Group living things according to a variety of criteria using classification keys. Identify and name living things in the local environment and through research and sort using classification keys.	Describe ecosystems and how they change through seasons. Describe the various ways humans impact the environment both negative and positive.
Vocabulary	Habitat, adapted, classify, species, environment	Ecosystems, pollution, deforestation, climate
Cultural capital and local resources		