

Science Progression

Science

Year 4	
Autumn 1	Autumn 2
<p style="text-align: center;"><b>Electricity</b></p> <ul style="list-style-type: none"> <li>• <i>Identify common appliances that run on electricity</i></li> <li>• <i>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</i></li> <li>• <i>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</i></li> <li>• <i>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</i></li> <li>• <i>Recognise some common conductors and insulators and associate metals with being good conductor</i></li> <li>• <i>Safety when using electricity</i></li> </ul> <p><b>Lesson 1:</b> Describe the basic parts of a circuit</p> <p><b>Lesson 2:</b> Identify when a lamp will light in a simple series circuits</p> <p><b>Lesson 3:</b> Understand the difference between a series and parallel circuit</p> <p><b>Lesson 4:</b> Explain how to recognise electrical conductors and insulators</p> <p><b>Lesson 5:</b> Explore how electricity is transported</p> <p><b>Lesson 6:</b> To know how to work with electricity safely</p>	<p style="text-align: center;"><b>Sound</b></p> <ul style="list-style-type: none"> <li>• <i>Identify how sounds are made, associating some of them with something vibrating</i></li> <li>• <i>Recognise that vibrations from sounds travel through a medium to the ear</i></li> <li>• <i>Find patterns between the pitch of a sound and features of the object that produced it</i></li> <li>• <i>Recognise that sounds get fainter as the distance from the sound source increases</i></li> </ul> <p style="text-align: center;"><b>Lesson 1:</b> Explain what causes sound</p> <p><b>Lesson 2:</b> Describe different types of sound (high and low pitched sounds)</p> <p><b>Lesson 3:</b> Compare the speed of sound and the speed of light</p> <p><b>Lesson 4:</b> Compare sounds in solids, liquids and gases</p> <p style="text-align: center;"><b>Lesson 5:</b> Describe how sound travels</p> <p style="text-align: center;"><b>Lesson 6:</b> Explain how to protect your ears</p>

Year 4	
Spring 1	Spring 2
<p><b>Classifying Living Things and Their Habitats</b></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> </ul> <p style="text-align: center;">•</p> <p><b>Lesson 1:</b> Understand habitats</p> <p><b>Lesson 2:</b> Know how scientists classify animals</p> <p><b>Lesson 3:</b> Understand the difference between vertebrate and invertebrate</p> <p><b>Lesson 4:</b> Know about cold-blooded amphibians and reptiles</p> <p><b>Lesson 5:</b> Know about warm-blooded birds and reptiles</p> <p><b>Lesson 6:</b> Understand how fish are different from amphibians and reptiles</p>	<p><b>Living Things and Their Habitats (Nature and the Environment)</b></p> <ul style="list-style-type: none"> <li>• Recognise that environments can change and that this can sometimes pose dangers to living things</li> </ul> <p><b>Lesson 1:</b> Understand water pollution</p> <p><b>Lesson 2:</b> Know about the balance of nature</p> <p><b>Lesson 3:</b> Describe eco-systems and how they are affected by changes in the environment</p> <p><b>Lesson 4:</b> Explore methods that could be used to conserve water</p> <p><b>Lesson 5:</b> Understand human impact on the environment</p> <p><b>Lesson 6:</b> Explore air pollution</p>

Year 4	
Summer 1	Summer 2
<p style="text-align: center;"><b>States of Matter</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> <p><b>Lesson 1:</b> Compare and group solids, liquids and gases  <b>Lesson 2:</b> Understand and explain the water-cycle  <b>Lesson 3:</b> Investigate the effect temperature has on changing state  <b>Lesson 4:</b> Understand diluting and dissolving  <b>Lesson 5:</b> Understand evaporation and condensation  <b>Lesson 6:</b> Describe freezing and melting</p>	<p style="text-align: center;"><b>Animals including Humans (Food and Digestion)</b></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               <ul style="list-style-type: none"> <li>• Recognise that environments can change and that this can sometimes pose dangers to living things</li> </ul> </li> <li>• Describe the simple functions of the basic parts of the digestive system in humans               <ul style="list-style-type: none"> <li>• Identify the different types of teeth in humans and their simple functions</li> </ul> </li> </ul> <p style="text-align: center;"><b>Lesson 1:</b> Understand the intestines  <b>Lesson 2:</b> Understand the food pyramid and why it is important  <b>Lesson 3:</b> Know about vitamins and minerals  <b>Lesson 4:</b> Understand salivary glands and taste buds  <b>Lesson 5:</b> Know the different types of teeth  <b>Lesson 6:</b> Understand the food chain and know how natural cycles work.</p>