

Science Progression

Science

Year 4	
Autumn 1	Autumn 2
<p style="text-align: center;">Electricity</p> <ul style="list-style-type: none"> • <i>Identify common appliances that run on electricity</i> • <i>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</i> • <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> • <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> • <i>Recognise some common conductors and insulators and associate metals with being good conductor</i> • <i>Safety when using electricity</i> <p>Lesson 1: Describe the basic parts of a circuit</p> <p>Lesson 2: Identify when a lamp will light in a simple series circuits</p> <p>Lesson 3: Understand the difference between a series and parallel circuit</p> <p>Lesson 4: Explain how to recognise electrical conductors and insulators</p> <p>Lesson 5: Explore how electricity is transported</p> <p>Lesson 6: To know how to work with electricity safely</p>	<p style="text-align: center;">Sound</p> <ul style="list-style-type: none"> • <i>Identify how sounds are made, associating some of them with something vibrating</i> • <i>Recognise that vibrations from sounds travel through a medium to the ear</i> • <i>Find patterns between the pitch of a sound and features of the object that produced it</i> • <i>Recognise that sounds get fainter as the distance from the sound source increases</i> <p style="text-align: center;">Lesson 1: Explain what causes sound</p> <p>Lesson 2: Describe different types of sound (high and low pitched sounds)</p> <p>Lesson 3: Compare the speed of sound and the speed of light</p> <p>Lesson 4: Compare sounds in solids, liquids and gases</p> <p style="text-align: center;">Lesson 5: Describe how sound travels</p> <p style="text-align: center;">Lesson 6: Explain how to protect your ears</p>

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

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