



## Science Long Term Plan

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	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Nursery</b>	<p><b><u>Cycle B: All creatures great and small</u></b></p> <p>Talk about what they see, using a wide vocabulary. Understand the key features of the life cycle of an animal. Begin to understand the need to respect and care for the natural environment and all living things.</p>	<p><b><u>Cycle B: Knock, knock, what's your job? /Celebrations</u></b></p> <p>Understand 'why' questions. Make healthy choices about food, drink, activity and toothbrushing.</p>	<p><b><u>Cycle B: Eye, eye captain!</u></b></p> <p>Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. Explore how things work.</p>	<p><b><u>Cycle B: Houses and homes</u></b></p> <p>Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. Explore how things work. Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal. Talk about the differences between materials and changes they notice.</p>	<p><b><u>Cycle B: Seaside</u></b></p> <p>What do we find at the seaside? Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. Explore how things work.</p>	<p><b><u>Cycle B: Creepy crawlies</u></b></p> <p>Know the lifecycle of a frog. Explore minibeasts and their patterns, textures and habitats. Talk about what they see, using a wide vocabulary. Understand the key features of the life cycle of an animal. Begin to understand the need to respect and care for the natural environment and all living things. Talk about the differences between materials and changes they notice.</p>
<b>Reception</b>	<p><b><u>Animals (Biology)</u></b></p> <p>Identify some animals from different habitats and understand why habitats are important to animals.</p>	<p><b><u>Celebrations (Biology)</u></b></p> <p>Children will be able to identify different parts of living things. Children will use their observational skills to categorise and compare.</p>	<p><b><u>People who help us (Biology)</u></b></p> <p>Children can identify why we need to keep our teeth clean. Children can identify what causes a fire.</p>	<p><b><u>Traditional Tales (Physics/Chemistry)</u></b></p> <p>Children will join materials securely using different methods</p>	<p><b><u>Minibeasts and Growing (Biology)</u></b></p> <p>Children will identify the different stages of the lifecycle of a caterpillar/butterfly.</p>	<p><b><u>Under the Sea (Biology/Physics)</u></b></p> <p>Children will explore floating/sinking. Identify animal habitats under the sea and group fish based on observations.</p>
<b>Year 1</b>	<p><b><u>Seasonal Changes (Physics)</u></b></p> <p>Identify four seasons and know when in the year they occur. Observe and describe weather in different seasons. Can describe days being longer in summer and shorter in winter.</p>	<p><b><u>Animals including humans (Biology)</u></b></p> <p>Name a range of animals from each of the vertebrate groups. Compare and classify animals.</p>	<p><b><u>Materials (Physics)</u></b></p> <p>Describe the properties of materials and sort them accordingly.</p>	<p><b>SCIENCE WEEK: Planning is developed and adapted annually to reflect current issues/topics</b></p>	<p><b><u>Materials EXT (Physics)</u></b></p> <p>Label diagram of objects made from different materials. Test evidence to answer a question.</p>	<p><b><u>Plants (Biology)</u></b></p> <p>Identify common trees and plants and describe their features. Begin to use simple charts to sort and categorise.</p>
<b>Year 2</b>	<p><b><u>Living things and their habitats (Biology)</u></b></p> <p>Identify items which are dead/ living. Name plants/animals which live in different habitats and micro habitats. Begin to construct a food chain.</p>	<p><b><u>Materials (Physics)</u></b></p> <p>Make links between properties and uses of different materials and objects. Whilst changing a shape of an object can describe the actions used.</p>	<p><b><u>Animals including humans (Biology)</u></b></p> <p>Sequence and describe how babies and animals change as they get older. Identify what humans and other animals need to survive.</p>		<p><b><u>Plants (Biology)</u></b></p> <p>Describe how plants that have grown from seeds and bulbs have developed over time. Identify plants that grow well in different conditions.</p>	

			Describe how to keep clean and healthy.			
Year 3	<b><u>Rocks and Soils (Physics)</u></b> Identify different types of rock and give physical features of each. Explain how a fossil is formed.  Classify rocks in a range of ways using scientific vocabulary. Test properties of rocks.	<b><u>Light and Shadows (Physics)</u></b> Describe how we see objects in light and can describe dark as the absence of light.  Describe how shadows are formed.	<b><u>Forces and Magnets (Physics)</u></b> Identify forces in everyday life. Name a range of magnets and show how the poles attract and repel.  Use classification to show that some metals are not magnetic.		<b><u>Animals including humans (Biology)</u></b> Name the nutrients found in food. Name some bones that make up the skeleton giving examples that support, help them move or provide protection.  Describe how muscles and joints help us to move.	<b><u>Plants (Biology)</u></b> Identify the function of the parts of a flowering plant. Describe the life cycle of flowering plants, including pollination, seed formation, seed dispersal and germination.
Year 4	<b><u>Animals including humans (Biology)</u></b> Sequence the main parts of the digestive system processes and describe what happens in each part of the digestive system. Identify three different types of human teeth. Identify and discuss teeth in animals and if they are carnivores, herbivores or omnivores.	<b><u>Sound (Physics)</u></b> Know that sound is produced by vibration. Describe sounds travelling through different mediums such as air, water, metal. Find patterns between pitch and volume.	<b><u>States of Matter (Chemistry)</u></b> Name properties of solids, liquids and gases. Give everyday examples of melting and freezing and evaporation and condensation. Describe the water cycle.		<b><u>Electricity (Physics)</u></b> Identify the components in a circuit and can make an electric circuit.  Name some metals that are conductors and some materials that are insulators.	<b><u>Living things and their habitats (Biology)</u></b> Identify that animals and plants can be classified in a number of possible ways including vertebrates and invertebrates, flowering and non-flowering plants.  Name living things in a range of habitats.
Year 5	<b><u>Forces (Physics)</u></b> Demonstrate the effect of gravity acting on an unsupported object. Give examples of friction, water resistance and air resistance.	<b><u>Properties of Materials (Physics)</u></b> Identify everyday uses of material e.g. how bricks, wood, glass are used in buildings. Explain what dissolving is, giving examples. Name equipment used for filtering and sieving.	<b><u>Space (Physics)</u></b> Understand the movement of the Earth and moon. Explain the rotation of the Earth and how this causes night and day.		<b><u>Living things and their habitats (Biology)</u></b> Describe the lifecycles of mammals, amphibians and insects using diagrams.	<b><u>Animals including humans (Biology)</u></b> Explain the changes that takes place in boys and girls during puberty.  Explain how a baby changes physically as it grows and also what it is able to do.
Year 6	<b><u>Animals including humans (Biology)</u></b> Identify the parts of the circulatory system. Explain the positive and negative effects that diet, exercise, drugs and lifestyle have on the body.	<b><u>Evolution and Inheritance (Biology)</u></b> Explain the process of evolution. Give examples of how plants and animals are suited to their environment and how an animal or plant has evolved over time.	<b><u>Electricity (Physics)</u></b> Make circuits to solve particular problems e.g. how to make the doorbell louder. Understand electricity symbols and draw circuits. Understand electrical hazards. Understand how cells/batteries work. Understand voltage.		<b><u>Light (Physics)</u></b> Describe with diagrams how light travels in straight lines, either from sources or reflected from other objects into our eyes. Describe with diagrams how light travels in straight lines past translucent or opaque objects to form a shadow of the same shape.	<b><u>Living things and their habitats (Biology)</u></b> Give examples of animals in the five vertebrate groups and some of the invertebrate groups. Give key characteristics of the five vertebrate groups and some invertebrate groups. Give examples of flowering and non-flowering plants.