

# Science Long Term Plan

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn	<p><b><u>Animals including Humans</u></b></p> <p>Name and locate parts of the human body, including those related to senses.</p> <p>Describe and compare the observable features of animals from a range of groups</p> <p>Group animals according to what they eat</p> <p><b><u>Seasonal Changes: Autumn</u></b></p> <p>Describe seasonal changes and record observations</p>	<p><b><u>Animals including Humans</u></b></p> <p>Name and locate parts of the human body, including those related to senses and describe the importance of exercise, a balanced diet and hygiene for humans</p> <p>Describe the basic needs of animals for survival and the main changes as young animals, including humans grow into adults</p> <p>Describe how animals get their food from other animals and/or plants, and use simple food chains to describe these relationships</p>	<p><b><u>Animals including Humans</u></b></p> <p>What makes a healthy lifestyle and diet, what do our bodies need to be healthy? Looked at what makes us unhealthy. Looked at human and animal skeletons and investigated how our muscles work.</p> <p>Name and describe the functions of the main parts of the musculoskeletal system</p> <p><b><u>Rocks</u></b></p> <p>Looking at the layers of the earth. Naming rocks. Examining different rocks and grouping them into sedimentary, igneous or metamorphic Described how fossils are formed</p>	<p><b><u>Animals including Humans</u></b></p> <p>Name and describe the functions of the main parts of the digestive system</p> <p>Construct and interpret food chains</p> <p><b><u>Electricity</u></b></p> <p>Identify common appliances that run on electricity, construct a simple circuit naming basic parts, identify whether or not a bulb will light up, recognise that a switch opens and closes a circuit and recognise some common conductors and insulators.</p>	<p><b><u>Properties and Changes of Materials</u></b></p> <p>Group and identify materials in different ways according to their properties, based on first hand observation and justify the use of different everyday materials for different uses based on their properties</p> <p>Identify and describe what happens when dissolving occurs in everyday situations and describe how to separate mixtures and solutions into their components</p> <p>Identify with reasons whether changes in materials are reversible or not</p> <p><b><u>Earth, Space and Moon</u></b></p> <p>Describe the shapes and relative movements of the sun, moon, earth and other planets in the solar system. Explain the apparent</p>	<p><b><u>Animals including Humans</u></b></p> <p>Describe the effects of diet, exercise, drugs and lifestyle on how the body functions Name and describe the functions of the main parts of the circulatory system</p> <p><b><u>Living things and their habitats</u></b></p> <p>Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals</p> <p>Give reasons for classifying plants and animals based on specific characteristics.</p>

# Spring

					movement of the sun across the sky in terms of the earth's rotation and that this results in day and night	
	<p><b><u>Seasonal Changes: Winter</u></b></p> <p>Describe seasonal changes and record observations</p> <p><b><u>Everyday Materials</u></b></p> <p>Distinguish objects from materials, describe their properties, identify and group everyday materials.</p> <p><b><u>Seasonal Changes: Spring</u></b></p> <p>Describe seasonal changes and record observations</p>	<p><b><u>Materials: Properties and Sorting</u></b></p> <p>Distinguish objects from materials, describe their properties, identify and group everyday materials and compare their suitability for different uses.</p>	<p><b><u>Forces and Magnets</u></b></p> <p>Experimenting with different forces, pushing and pulling and friction. Experimenting with magnet poles (like and unlike magnetic poles) , testing magnetic materials and testing magnet strength</p> <p><b><u>Light</u></b></p> <p>Understand that light is the absence of darkness, different materials allow different amounts of light through, sorting materials into opaque, translucent and transparent. Experiment with making shadows using different materials and how we can change the formation and size of shadows.</p>	<p><b><u>Living Things and their Habitats</u></b></p> <p>Explain how environmental changes may have an impact on living things</p> <p><b><u>Sound</u></b></p> <p>Use the idea that sounds are associated with vibrations and that they require a medium to travel through to explain how sounds are made and heard</p> <p>Describe the relationship between the pitch of a sound and the features of its source and between the volume of the sound, the strength of the vibrations and the distance from its source</p>	<p><b><u>Earth, Space and Moon (continued)</u></b></p> <p>Describe the shapes and relative movements of the sun, moon, earth and other planets in the solar system. Explain the apparent movement of the sun across the sky in terms of the earth's rotation and that this results in day and night</p> <p><b><u>Forces</u></b></p> <p>Describe the effects of simple forces that involve contact (air and water resistance, friction and gravity)</p> <p>Identify simple mechanisms including levers, gears and pulleys that increase the effect of a force</p>	<p><b><u>Electricity</u></b></p> <p>Use simple apparatus to construct and control a series circuit and describe how the circuit may be affected when changes are made to it and use recognised symbols to recognise simple series circuit diagrams</p> <p><b><u>Light</u></b></p> <p>Use the idea that light from light sources or reflected light travels in straight lines and enters our eyes to explain how we see objects and shapes</p>

# Summer

## Plants

Identify and describe the basic structure of a variety of common plants, including trees.

## Seasonal Changes: Summer

Describe seasonal changes and record observations

## Living Things and their Habitats

Describe the basic needs of plants for survival and the impact of changing these and the main changes as seeds and bulbs grow into mature plants

Identify whether things are alive, dead or have never lived.

Name different plants and animals and describe how they are suited to different habitats

## Plants

Identify how different habitats provide basic needs for different kinds of plants and how they depend on each other. Identify a variety of plants.

## Plants

Knowing the parts and functions of plants. Knowing what plants need to survive. Understanding seed dispersal and the life cycle of a plant. Transporting water and nutrients Describe the requirements of plants for life and growth

## The Nappy Challenge

This cross-curricular challenge brings together all of the scientific skills from across the year. Children will analyse nappies, discussing materials, stretch, absorbency, ask scientific questions and complete fair tests to answer their own questions. We will also conduct environmental surveys and have classroom debates.

## States of Matter

Describe the characteristics of different states of matter and group materials on this basis. Describe how materials change state at different temperatures and use this to describe everyday phenomena, including the water cycle

## Animals including Humans

Describe and compare different reproductive processes and life cycles in animals

## Living Things and their Habitats

Name, locate and describe the functions of the main parts of plants including those involved in reproduction

## Topics to cover from Year 4 (2019-2020)

- Sound
- States of Matter

## Evolution

Use the basic ideas of inheritance, variation and adaptation to describe how living things have changed over time and evolved and provide evidence for evolution . Recognise that living things have changed over time and produce offspring. Identify how plants and animals are adapted to suit their environment in different ways and that adaptation may lead to evolution.

## Topics to cover from Year 5 (2019-2020)

- Forces