

**Science Overview Year B 2022-23**

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<b>Year Group</b>	<b>This is me!</b>	<b>Our Wonderful World.</b>	<b>A Step back in time.</b>	<b>Once upon a time.</b>	<b>Explorers</b>	<b>Explorers</b>
		DT / Enterprise Week			Science Week	Careers Week
<p><b>Year 1</b> Seasonal changes <i>(to be taught across the year)</i> Children will observe changes across the 4 seasons, as well as describing the associated weather for each season and how day length varies.</p> <p><b>Our changing world: plants</b> <i>(to be taught across the year)</i> Children will look at how trees, leaves and plants change throughout the year, in addition to discovering which flowers we can find in different seasons.</p>	<p><b>Seasonal changes/Our changing world: plants</b> <b>Animals, including humans</b> The children will study and name different animals, learn about which group the animal belongs to and discover what they need to survive. This will include looking at the different animal groups including fish, amphibians, reptiles, birds and mammals. Also, children will learn the difference between carnivores, herbivores and omnivores.</p> <p>The children will learn about their bodies and the five senses.</p>		<p><b>Seasonal changes/Our changing world: plants</b> <b>Everyday materials</b> The children will identify, name, compare and group together different everyday materials using their simple properties, in addition to distinguishing between an object and the material from which it is made.</p>		<p><b>Seasonal changes/Our changing world: plants</b> <b>Plants</b> The children will identify and name a variety of common wild and garden plants, as well as describing the basic structure of flowering plants including trees.</p>	
<p><b>Year 2</b></p>	<p><b>Animals including Humans</b> Children will learn how animals, including humans, have offspring which grow into adults. They will describe the basic needs of animals, including humans, to survive and study the importance for humans to exercise, eat the right amounts of different types of food and be hygienic.</p>	<p><b>Living things and their habitats</b> Children will compare the differences between things that are living, dead and things that have never been alive. They will look at how different habitats are suitable for kinds of animals and plants. Children will also identify and name a variety of plants and animals in their habitats, including microhabitats and they will explore food chains.</p>	<p><b>Uses of everyday materials</b> Children will identify and compare the suitability of a variety of everyday materials for particular uses. They will also discover how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>		<p><b>Plants</b> <b>(short recap on animals including humans)</b> Children will observe and describe how seeds and bulbs grow into mature plants. Additionally, they will find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p>	
<b>Year 3/4</b>	Living things and their habitats	Animals, including humans	States of Matter	Sound	Conclude any Science units from Terms 1 to 4 and teach Electricity	

<p><b>(Year 4 curriculum on 2 year rolling cycle)</b></p>	<p>Children will recognise that living things can be grouped in a variety of ways. They will also explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. Additionally, children will recognise that environments can change and that this can sometimes pose dangers to living things.</p>	<p>Children will describe the simple functions of the basic parts of the digestive system in humans. They will also identify the different types of teeth in humans and their simple functions. Additionally, they will construct and interpret a variety of food chains, identifying producers, predators and prey.</p>	<p>Children will compare and group materials together, according to whether they are solids, liquids or gases. They will 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). Additionally, they will identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	<p>Children will identify how sounds are made, associating some of them with something vibrating and recognise that vibrations from sounds travel through a medium to the ear. They will also find patterns between the pitch of a sound and features of the object that produced it as well as finding patterns between the volume of a sound and the strength of the vibrations that produced it. Additionally, children will recognise that sounds get fainter as the distance from the sound source increases.</p>	<p>Children will identify common appliances that run on electricity and construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. Children will also 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. They will recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit as well as recognising some common conductors and insulators, and associate metals with being good conductors.</p>
<p><b>Year 5/6 (Year 6 curriculum on 2 year rolling cycle)</b></p>	<p><b>Electricity</b> Children will associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. They will also compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. Additionally, they will use recognised symbols when representing a simple circuit in a diagram.</p>	<p><b>Light</b> Children will recognise that light appears to travel in straight lines. They will also use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye, as well as explaining that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. Additionally, they will use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>	<p><b>Living things and their habitats</b> Children will 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. They will also give reasons for classifying plants and animals based on specific characteristics.</p>	<p><b>Animals including humans</b> Children will identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. They will also recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Additionally, they will describe the ways in which nutrients and water are transported within animals, including humans.</p>	<p><b>Conclude any Science units from Terms 1 to 4 and teach Evolution and inheritance</b> Children will recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. They will also recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. Additionally, they will identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>