

# Science Long Term Plan (Year A)

	<b>Autumn</b> Our World		<b>Spring</b> Space		<b>Summer</b> Lakes and Dales	
	<b>Deep into the woods</b>		<b>Up, up and away!</b>		<b>Paws, claws and whiskers</b>	
<b>KS1</b>	<p><b>Who lives in the woods?</b></p> <p><i>To investigate living things</i> in the woods and other local habitats.</p> <ul style="list-style-type: none"> <li>• Explore and compare the differences between things that are living, that are dead and that have never been alive.</li> <li>• Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants and how they depend on each other.</li> </ul>	<p><b>What might you see in the dark?</b></p> <p><i>To understand light and seeing</i> by looking at different sources of light and the absence of light</p> <ul style="list-style-type: none"> <li>• Observe and name a variety of sources of light, including electric lights, flames and the Sun, explaining that we see things because light travels from them to our eyes.</li> </ul> <p><b>Outdoor learning- What are the treasures of Autumn?</b></p> <p><i>To investigate living things by identifying the signs of autumn, indemnifying trees and seeds.</i></p>	<p><b>How can you travel to the moon?</b></p> <p><i>To understand movement, forces and magnets</i> with toy cars.</p> <ul style="list-style-type: none"> <li>• <i>Notice and describe how things move, using simple comparisons such as faster and slower.</i></li> <li>• <i>Compare how different things move.</i></li> </ul>	<p><b>How do you know it's spring?</b></p> <p><i>To understands Earth's movement</i> in space to observe and know the different seasons of the year..</p> <ul style="list-style-type: none"> <li>• <i>Observe the apparent movement of the Sun during the day.</i></li> <li>• Observe changes across the four seasons.</li> <li>• Observe and describe weather associated with the seasons and how day length varies.</li> </ul>	<p><b>What type of animals have fur?</b></p> <p><i>To understand animals and humans</i> by identifying and naming a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates..</p> <ul style="list-style-type: none"> <li>• Identify and name a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates.</li> <li>• Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</li> </ul>	<p><b>What do plants need to grow?</b></p> <p><i>To understand plants</i> by looking at a range of plants, bulbs and seeds to identify different parts of plants and what they need to stay healthy.</p> <ul style="list-style-type: none"> <li>• Identify and name a variety of common plants, including garden plants, wild plants and trees and those classified as deciduous and evergreen.</li> <li>• Identify and describe the basic structure of a variety of common flowering plants, including roots,</li> </ul>

	<ul style="list-style-type: none"> <li>• Identify and name a variety of plants and animals in their habitats, including micro-habitats.</li> <li>• Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</li> </ul>			<p><b>Outdoor living- How do plants grow?</b></p> <p><i>To understand plants by planting seeds and bulbs, and looking after plants to put in the school garden.</i></p>	<ul style="list-style-type: none"> <li>• Describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, including pets).</li> <li>• Identify name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</li> <li>• Notice that animals, including humans, have offspring which grow into adults.</li> <li>• Investigate and describe the basic needs of animals, including humans, for survival (water, food and air).</li> <li>• Describe the importance for humans of exercise, eating the right amounts of different types</li> </ul>	<p>stem/trunk, leaves and flowers.</p> <ul style="list-style-type: none"> <li>• Observe and describe how seeds and bulbs grow into mature plants.</li> <li>• Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</li> </ul>
--	---	--	--	---	--	---

					of food and hygiene.	
	<b>Tropics</b>		<b>Space Race</b>		<b>Prehistoric Cumbria</b>	
<b>LKS2</b>	<p><b>How are animals and plants adapted to live in extreme conditions?</b></p> <ul style="list-style-type: none"> <li>• Identify how animals and plants are suited to and adapt to their environment in different ways.</li> <li>• Identify how plants and animals, including humans, resemble their parents in many features.</li> <li>• Recognise that environments can change and that this can sometimes pose dangers to specific habitats.</li> </ul>	<p><b>What role does evaporation and condensation play in the water cycle?</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 the temperature at which this happens in degrees Celsius (°C), building on their teaching in mathematics.</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>Where is the Earth, Sun and Moon?</b></p> <ul style="list-style-type: none"> <li>• Describe the movement of the Earth relative to the Sun in the solar system.</li> <li>• Describe the movement of the Moon relative to the Earth.</li> </ul>	<p><b>How do magnets work?</b></p> <ul style="list-style-type: none"> <li>• Compare how things move on different surfaces.</li> <li>• Notice that some forces need contact between two objects, but magnetic forces can act at a distance.</li> <li>• Observe how magnets attract or repel each other and attract some materials and not others.</li> <li>• Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.</li> <li>• Describe magnets as having two poles.</li> </ul>	<p><b>What rocks and fossils can we find in Cumbria?</b></p> <ul style="list-style-type: none"> <li>• Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</li> <li>• Compare and group together different kinds of rocks on the basis of their simple, physical properties.</li> <li>• Relate the simple physical properties of some rocks to their formation (igneous or sedimentary).</li> <li>• Describe in simple terms how fossils are formed when things that have lived are trapped</li> </ul>	<p><b>How do you use a classification key?</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.</li> <li>• Construct and interpret a variety of food chains, identifying producers, predators and prey.</li> <li>• Identify how plants and animals, including humans, resemble their parents in many features.</li> </ul>

				<ul style="list-style-type: none"> <li>• Predict whether two magnets will attract or repel each other, depending on which poles are facing.</li> </ul>	<p>within sedimentary rock.</p> <ul style="list-style-type: none"> <li>• Recognise that soils are made from rocks and organic matter.</li> </ul>	
	<b>Polar</b>		<b>Ancient Egyptians</b>		<b>Transport and Trade</b>	
<b>UKS2</b>	<p><b>What does inheritance mean?</b></p> <ul style="list-style-type: none"> <li>• Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</li> <li>• Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</li> <li>• Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</li> </ul>	<p><b>How can we classify living things?</b></p> <ul style="list-style-type: none"> <li>• Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</li> <li>• Describe the life process of reproduction in some plants and animals.</li> <li>• Describe how living things are classified into broad groups according to common observable characteristics.</li> <li>• Give reasons for classifying plants and animals based on specific characteristics.</li> </ul>	<p><b>What is the solar system?</b></p> <ul style="list-style-type: none"> <li>• Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</li> <li>• Describe the movement of the Moon relative to the Earth.</li> <li>• Describe the Sun, Earth and Moon as approximately spherical bodies.</li> <li>• Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</li> </ul>	<p><b>How does distance affect sound?</b></p> <ul style="list-style-type: none"> <li>• Find patterns between the pitch of a sound and features of the object that produced it.</li> <li>• Find patterns between the volume of a sound and the strength of the vibrations that produced it.</li> <li>• Recognise that sounds get fainter as the distance from the sound source increases</li> </ul>	<p><b>How have plants evolved?</b></p> <ul style="list-style-type: none"> <li>• <i>Relate knowledge of plants to studies of evolution and inheritance.</i></li> <li>• <i>Relate knowledge of plants to studies of all living things.</i></li> </ul>	<p><b>Rocks and Fossils</b></p> <ul style="list-style-type: none"> <li>• Compare and group together different kinds of rocks on the basis of their simple, physical properties.</li> <li>• Relate the simple physical properties of some rocks to their formation (igneous or sedimentary).</li> <li>• Describe in simple terms how fossils are formed when things that have lived are trapped within sedimentary rock.</li> <li>• Recognise that soils are made from rocks and organic matter.</li> </ul>

