



Science

Armfield Primary Curriculum Map 2022-2023

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	<p>Exploring Changes: Making Porridge and Baking bread</p> <p>Exploring Materials: Building bridges and houses.</p>	<p>Hibernation and Habitats: Making outdoor homes for hedgehogs.</p> <p>Exploring Autumn: What changes can we see?</p> <p>Exploring materials: Kites: Which materials are easily lifted?</p> <p>Exploring light and dark.</p>	<p>Exploring Winter: What changes can we see?</p> <p>Exploring ice: Freezing and melting.</p>	<p>How do plants grow? Planting and growing beans.</p> <p>Using our senses Spring walk and fruit tasting</p> <p>Life cycles Life cycle of a butterfly.</p> <p>Adult and baby animals</p>	<p>Animals Animals that lay eggs Looking after animals and us- vets/ hospitals</p> <p>Life cycles: Butterfly, frog, chick/duckling/swan.</p> <p>Dinosaurs: Herbivores and carnivores.</p>	<p>Habitats Rock pools and oceans</p> <p>Looking after ourselves Keeping safe in summer</p>
Reception	<p>All about Me: Facial features, body Parts and the five senses</p> <p>Hedgehogs & hibernation</p>	<p>Light and dark: Shadows</p>		<p>Force Push, pull, twist</p> <p>Transport Air, Water and Land</p>	<p>Animals: Farm animals and their young</p> <p>Life-cycles</p> <p>Plant and seeds Recognise fruits, vegetables and basic parts of a plant</p>	<p>Dinosaurs Animals of the Ice Age Extinct animals</p> <p>Protecting the environment Light and dark shadows</p>
Year 1	<p>Animals, including humans <i>Children will investigate the concept of 'families' and how animals are grouped according to their shared properties including fish, amphibians, reptiles, birds and mammals. They will learn the key features of each animal family and group them into their correct families. Children will identify and name a variety of common animals that are carnivores, herbivores and omnivores. They will identify, name, draw and label the basic parts of the human body, and learn about the senses.</i></p>		<p>Materials and their properties <i>Children will identify, group, compare and list the properties of, a number of everyday materials, including wood, plastic, glass, metal, water, and rock. They will distinguish between an object and the material from which it is made including if it is 'man-made' or 'natural'.</i></p>		<p>Plants <i>Children will learn about the names of common plants and trees and learn to identify them by their leaves. They learn about the terms 'evergreen' and 'deciduous' and how deciduous plants fit into the change of the seasons.</i></p>	
	<p>Seasonal Changes <i>Children will develop understanding of the four seasons, including the months that fall into each season and the weather patterns they follow. They will learn about the changes to the earth's light patterns through the seasons and how the seasons affect animals and plants.</i></p>					
Year 2	<p>Animals, including humans <i>Children will study life cycles and learn that animals, including humans, have offspring which grow into adults. They will investigate the basic needs of animals, including humans, for survival and the importance of exercise, eating the right amounts of different types of food, and hygiene.</i></p>	<p>Materials and their properties <i>Children will identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for different uses. They will compare how things move on different surfaces, and understand how squashing, bending, twisting and stretching can change the shapes of some solid objects.</i></p>	<p>Living Things and their habitats <i>Children will learn about the food chains of animals in varying habitats and will look at microhabitats and the animals that live there. They will also learn how to determine if something is alive, was once alive or never lived, using the acronym MRS NERG.</i></p>	<p>Plants <i>Children will recap common plants and trees studied in year 1 before moving onto how plants grow (including germination and pollination), what they need to grow healthily and differences between bulbs and seeds. They will investigate how to grow healthy plants.</i></p>		
Year 3	<p>Animals, including humans <i>Children will learn that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. They will discuss a balanced diet, including how sugar can cause tooth decay and obesity, the food groups and their role in human development. Children will learn how humans and some other animals have skeletons and muscles for support, protection and movement.</i></p>	<p>Forces and Magnets <i>Children will learn that the force of friction impacts on how things move on different surfaces. They will investigate magnetism as they notice that some forces need contact between two objects, but magnetic forces can act at a distance. Children will describe magnets as having two poles and observe how magnets attract or repel each other. They will compare and group according to whether they are attracted to a magnet, and identify some magnetic materials.</i></p>	<p>Light <i>Children will learn that we need light in order to see things and that dark is the absence of light. They will know that all objects reflect light, which is how we see them, but some surfaces are more reflective than others. Children will know that light from the sun can be dangerous and that there are ways to protect their eyes, using materials with certain properties. They will investigate shadow, the length of shadows and begin to look at how this is linked to the movement of the earth around the sun.</i></p>	<p>Plants <i>Children will recap on the parts of a plant/tree and describe the function of each part of a plant. They will investigate the way in which water is transported within plants. They will investigate what seeds and plants need to grow and be health. Children will develop their knowledge of germination, pollination and the four methods of seed dispersal.</i></p>		<p>Rocks <i>Children will build on their knowledge of properties of materials as pupils learn about rocks and soils. They will compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. They will describe how fossils are formed when things that have lived are trapped within rock and recognise that soils are made from rocks and organic matter.</i></p>
Year 4	<p>Animals, including humans <i>Children will learn about the simple functions of the basic parts of the digestive system in humans. They will identify the different types of teeth in humans and their simple functions. Children will construct and interpret a variety of food chains, identifying producers, predators and prey.</i></p>	<p>Electricity <i>Children will identify common appliances that run on electricity and construct a simple series electrical circuit, identifying and naming its basic parts. They will investigate 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. Children 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. They will recognise some common conductors and insulators, and</i></p>	<p>Sound <i>Children will identify how sounds are made and recognise that vibrations from sounds travel through a medium to the ear. They will investigate the anatomy of the ear and how whales communicate via Whale Song. They will look for patterns between the pitch of a sound and features of the object that produced it, and find patterns between the volume of a sound and the strength of the vibrations that produced it. They will learn that sounds get fainter as the distance from the sound source increases.</i></p>	<p>States of Matter <i>Children will develop their understanding of properties of materials as they learn about states of matter. They will compare and group materials together, according to whether they are solids, liquids or gases. Children will investigate that materials can change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).</i></p>	<p>Living things and habitats <i>Children will identify and name a variety of living things in their local and wider environment. They will group living things and begin to use classification keys for flowers (flowering and nonflowering). Children will also classify animals into warm blooded and cold-blooded, vertebrates and invertebrates, and know the names of some common woodland species. Children will learn that environments can change and that this can sometimes pose dangers to living things.</i></p>	

		<i>associate metals with being good conductors.</i>				
	Proposed Curriculum					
Year 5	Forces	Earth and space	Properties and changes of materials	Properties and changes of materials	Living things and their habitats	Animals including humans
Year 6	Animals including humans	Light	Electricity	Living things and their habitats	Evolution and inheritance	Evolution and inheritance