

	Science					
	Armfield Primary Curriculum Map 2024-2025					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	Curiosity Curriculum: The Natural World Children will explore natural environments and materials, using observational and investigational skills. They will show and explain the concepts of growth, change and decay with natural materials. They will discuss forces and the different states of matter.		Curiosity Curriculum: The Natural World Children will explore natural environments and materials, using observational and investigational skills. They will show and explain the concepts of growth, change and decay with natural materials. They will discuss forces and the different states of matter.		Curiosity Curriculum: The Natural World Children will explore natural environments and materials, using observational and investigational skills. They will show and explain the concepts of growth, change and decay with natural materials. They will discuss forces and the different states of matter.	
Reception	Curiosity Curriculum: The Natural World Children will explore the natural world around them, making observations and drawing pictures of animals and plants. They will discuss some similarities and differences between the natural world around them and contrasting environments. They will understand processes and changes in the natural world around them, including the seasons and changing states of matter.		Curiosity Curriculum: The Natural World Children will explore the natural world around them, making observations and drawing pictures of animals and plants. They will discuss some similarities and differences between the natural world around them and contrasting environments. They will understand processes and changes in the natural world around them, including the seasons and changing states of matter.		Curiosity Curriculum: The Natural World Children will explore the natural world around them, making observations and drawing pictures of animals and plants. They will discuss some similarities and differences between the natural world around them and contrasting environments. They will understand processes and changes in the natural world around them, including the seasons and changing states of matter.	
Year 1	Animals, including humans 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.		Materials and their properties 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’.		Plants 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.	
	Seasonal Changes - Children will develop understanding of the four seasons, including the months that fall into each season and the weather patterns they follow.					
Year 2	Animals, including humans 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.		Materials and their properties 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.	Living Things and their habitats 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.	Plants 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.	
Year 3	Animals, including humans 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.	Forces and Magnets 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.	Light 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.	Plants 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.		Rocks 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.
Year 4	Animals, including humans 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.	Electricity 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 associate metals with being good conductors.	Sound 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.	States of Matter 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).	Living things and habitats 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.	

Year 5	Properties and Changes of Materials Children will learn about the properties of different materials and how they can be changed. They will study the effects of heating, cooling, dissolving, and mixing. Children will understand the difference between reversible and irreversible changes. They will investigate how to separate mixtures using filtering, sieving, and evaporating.		Forces Children will learn about different forces and how they affect movement. They will study gravity, friction, air resistance, and water resistance. Children will understand how forces act on objects, making them speed up, slow down, or change direction. They will investigate how mechanisms such as levers, pulleys, and gears make work easier.	Earth and Space Children will learn about the solar system and the movement of the Earth, Moon, and Sun. They will study how the Earth's rotation causes day and night, and how its orbit creates the seasons. Children will understand the phases of the Moon and how the planets move around the Sun. They will investigate scientific models and evidence to explain these phenomena.	Living Things and Their Habitats Children will learn about the life cycles of different plants and animals. They will study the process of reproduction in flowering plants, mammals, amphibians, insects, and birds. Children will understand how living things develop and grow, including the stages of metamorphosis. They will investigate the similarities and differences between life cycles through observation and research.	Animals, Including Humans Children will learn about the changes that occur in humans and animals as they grow. They will study the stages of human development, from birth to old age. Children will understand the physical and emotional changes that happen during puberty. They will investigate how different animals grow and develop over time.
Year 6	Animals, Including Humans Children will learn about the human circulatory system. They will study the functions of the heart, blood, and blood vessels. Children will understand how diet, exercise, and lifestyle affect the health of the body. They will investigate how nutrients and oxygen are transported around the body.	Electricity Children will learn about how electrical circuits work. They will study the symbols used to represent components such as bulbs, switches, and batteries. Children will understand how changing the number or type of components affects the brightness of bulbs or the speed of motors. They will investigate how to create and troubleshoot simple and complex circuits.	Living Things and Their Habitats Children will learn about how living things are classified into groups. They will study how scientists classify plants, animals, and microorganisms based on their characteristics. Children will understand how to use keys and diagrams to identify different species. They will investigate how classification helps us understand biodiversity.	Light Children will learn about how light travels and how we see objects. They will study how light is reflected, refracted, and dispersed into colours. Children will understand how shadows are formed and why they change in size. They will investigate how light behaves using practical experiments.	Evolution and Inheritance Children will learn about how living things have evolved over time. They will study how fossils provide evidence for evolution and how characteristics are passed down from parents to offspring. Children will understand the concept of adaptation and how it helps animals and plants survive. They will investigate how environmental changes can lead to the evolution or extinction of species.	