

Science Curriculum Map 2021-2022

	Autumn Term		Spring Term		Summer Term	
Y e a r 1	Animals Including Humans	Seasons (Autumn)	Seasons (Winter)	Seasons(Spring)	Animals Including Humans	Seasons (Summer)
	Children will learn to identify, name and label basic parts of the human body. They will learn the basic functions of such body parts.	Pupils observe and talk about changes in the weather in Autumn. They learn how to investigate weather in Autumn and length of day during this season. They will make observations about plant, flowers, trees and habitats around them.	Pupils build on their learning from the Autumn Term about seasons. They begin to explore the changes in weather and day length as we move into the winter months and observe the differences in the living things around them.	Pupils continue to observe changes across the season by investigating weather, temperature and day length in spring. Additional observations are based around living things and habitats during this season.	Pupils will identify, name and learn the basic structure of common animals including fish, amphibians, reptiles, birds and mammals. Children will also learn to identify basic animals including animals that are herbivore, carnivores or omnivores.	Children observe temperature, day length and weather in summer and compare these observations with those from the autumn, winter and spring including changes in habitats and living things such as plants, flowers and trees.
Observe Plants and the seasons throughout the year (School and Windsor Gardens)						
Y e a r 2	Animals Including Humans	STEM Whole School Invention Project	Uses of Everyday Materials	Plants- Seed to Seedlings	Living Things and their Habitats	Plants- Growth and Care
	Pupils will be introduced to the basic needs of animals for survival, as well as the importance of exercise and nutrition for humans. They will also notice that animals have offspring that grow into adults.	Pupils will interview STEM professionals, identify a problem and design a solution to it enabling them to be inspired by engineering professionals and 'find the engineer they could be' by designing the future of engineering.	Pupils will build upon their knowledge of materials from Year 1. They will investigate the impact of forces such as: bending, stretching and squeezing have upon such materials.	Pupils find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. They begin to observe the changes of growth of a seed or bulb over time. Pupils will work practically at school and at Windsor Gardens to plant more basic plants, fruits and vegetables.	Pupils identify things that are living, dead, and things that have never been alive. They learn about habitats and basic food chains. This will be investigated practically at Windsor Gardens and at school.	Pupils build upon their learning from earlier on in the year. Pupils will have a greater chance to see how the plants and flowers have grown and matured and harvest any food that they planted in spring.
Observe Plants and the seasons throughout the year (School and Windsor Gardens)						
Y e a r 3	Animals Including Humans	STEM Whole School Invention Project	Light	Plants- Functions and Transport	Rocks and Fossils	Plants- Growth, Care and Life cycles
	Pupils learn to identify that animals, need the right types and amount of nutrition which comes from what they eat. They also identify that humans and some other animals have skeletons and muscles for support, protection and movement	Pupils will interview STEM professionals, identify a problem and design a solution to it enabling them to be inspired by engineering professionals and 'find the engineer they could be' by designing the future of engineering.	Recognise that they need light in order to see things and that light is reflected from surfaces. They will also learn how to investigate how shadows are formed and how to change the size of shadows.	Pupils will build upon their learning in year 1 and 2 here. Pupils will develop further by learning about the functions of parts of flowering plants. They will learn about water transportation in plants and learn how to grow a wider variety of plants, fruit and vegetables.	Pupils explore different kinds of rocks and soils, including those in the local environment based on their appearance and properties. They also learn how fossils are formed when things that have lived are trapped within rock	Pupils will continue to practically learn about caring of plants, flower, fruit and vegetables. Additionally, they will begin to learn about the life cycle of flowering plants including seed formation, seed dispersal and pollination and how water is transported in plants.

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Year 4	Living Things and Their Habitats Pupils group living things in a variety of ways and explore and use classification keys to help group. Additionally, they recognise that environments can change and that this can sometimes pose dangers to living things	STEM Whole School Invention Project Pupils will interview STEM professionals, identify a problem and design a solution to it enabling them to be inspired by engineering professionals and 'find the engineer they could be' by designing the future of engineering.	Sound Pupils identify how sounds are made, find patterns between the pitch of a sound and volume and the strength of the vibrations that produced it They investigate how sounds get fainter as the distance from the sound source increases	States of Matter Pupils compare and group materials together, according to whether they are solids, liquids or gases 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) identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	Animals Including Humans Pupils describe the simple functions of the basic parts of the digestive system in humans They explore further by identifying the different types of teeth in humans and their simple functions They work scientifically by: comparing the teeth of carnivores and herbivores and suggesting reasons for differences; finding out what damages teeth and how to look after them.	Electricity Pupils work in groups to construct simple series circuits, trying different components, including: bulbs, buzzers and motors, and including switches, and use their circuits to create simple devices..
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Year 5	Earth and Space Pupils find out about the work of scientists including Copernicus and how they influenced our knowledge of the solar system. Pupils also learn about the solar system, sun and moon.	STEM Whole School Invention Project Pupils will interview STEM professionals, identify a problem and design a solution to it enabling them to be inspired by engineering professionals and 'find the engineer they could be' by designing the future of engineering.	Materials- Properties and Testing Pupils build upon their knowledge of materials in Key stage 1 by exploring and comparing the properties of a broad range of materials including those that are conductors and have magnetic properties.	Materials- Reversible and Irreversible Pupils explore reversible changes; including evaporating, filtering, sieving, melting and dissolving, recognising that melting and dissolving are different processes. Pupils explore changes that are difficult to reverse, They also research products created by scientists in the field of chemistry.	Forces Pupils explore and investigate the impact that forces such as: gravity, air resistance, water resistance and friction have upon the speed and movement of objects. They work practically by investigating the effects of levers, pulleys and simple machines on movement.	Living Things and their Habitats Pupils work scientifically by: observing and comparing the life cycles of plants and animals in their local environment They also learn about types of sexual and asexual reproduction in plants, and sexual reproduction in animals.
	Observe Plants and the seasons throughout the year (School and Windsor Gardens)					
Year 6	Light Pupils build upon their knowledge in year 3. They learn how light travels and behaves and how our eyes function so that we can see objects in the presence of light.	STEM Whole School Invention Project Pupils will interview STEM professionals, identify a problem and design a solution to it enabling them to be inspired by engineering professionals and 'find the engineer they could be' by designing the future of engineering.	Living Things and Their Habitats Pupils build on their learning about grouping living things by looking at the classification system in more detail including broad groupings, such as micro-organisms, plants and animals can be subdivided. They learn about the pioneering work of Carl Linnaeus	Electricity Building on their work in year 4, pupils construct simple series circuits, to help them to answer questions about the impact on different components. They learn here how to represent circuits in a diagram using recognised symbols.	Evolution and Inheritance Pupils find out more about how living things on earth have changed over time. They are introduced to the idea that characteristics are passed from parents to their offspring, They also learn that variation in offspring over time can make animals more or less able to survive in particular environments,	Animals Including Humans Pupils learn how to keep their bodies healthy and how their bodies might be damaged – including how some drugs and other substances can be harmful to the human body. Additionally, pupils learn how the circulatory system enables the body to function.
	Observe Plants and the seasons throughout the year (School and Windsor Gardens)					