# Science Curriculum Map 2023- 2024

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| Nursery | All about me!<br>Use all their senses in hands-on exploration of natural materials.<br>Explore collections of materials with similar and/or different properties.<br>Talk about what they see, using a wide vocabulary<br>Explore how things work.<br>Begin to understand the need to respect and care for the natural environment and all living things.<br>Explore and talk about different forces they can feel.<br>Talk about the differences between materials and changes they notice | Terrific Tales<br>Use all their senses in hands-on exploration of natural materials.<br>Explore collections of materials with similar and/or different properties.<br>Talk about what they see, using a wide vocabulary.<br>Plant seeds and care for growing plants. (Jack and the Beanstalk)<br>Begin to understand why the leaves fall from the trees and when they might start growing again.<br>Begin to understand the need to respect and care for the natural environment and all living things.<br>Explore and talk about different forces they can feel.<br>Talk about the differences between materials and changes they notice | Patterns and prints<br>Use all their senses in hands-on exploration of natural materials.<br>Explore collections of materials with similar and/or different properties.<br>Talk about what they see, using a wide vocabulary.<br>Explore how things work.<br>Begin to understand the need to respect and care for the natural environment and all living things.<br>Explore and talk about different forces they can feel.<br>Talk about the differences between materials and changes they notice | Ticket to Ride! Who helps us?<br>Use all their senses in hands-on exploration of natural materials.<br>Explore collections of materials with similar and/or different properties.<br>Talk about what they see, using a wide vocabulary.<br>Explore how things work.<br>Begin to understand the need to respect and care for the natural environment and all living things.<br>Explore and talk about different forces they can feel.<br>Talk about the differences between materials and changes they notice | Amazing Animals!<br>Use all their senses in hands-on exploration of natural materials.<br>Explore collections of materials with similar and/or different properties.<br>Talk about what they see, using a wide vocabulary.<br>Explore how things work.<br>Plant seeds and care for growing plants.<br>Understand the key features of the life cycle of a plant and an animal.<br>Begin to understand the need to respect and care for the natural environment and all living things.<br>Explore and talk about different forces they can feel.<br>Talk about the differences between materials and changes they notice | Come outside!<br>Use all their senses in hands-on exploration of natural materials.<br>Explore collections of materials with similar and/or different properties.<br>Talk about what they see, using a wide vocabulary.<br>Explore how things work.<br>Plant seeds and care for growing plants.<br>Understand the key features of the life cycle of a plant and an animal.<br>Begin to understand the need to respect and care for the natural environment and all living things.<br>Explore and talk about different forces they can feel.<br>Talk about the differences between materials and changes they notice |
| Reception | All about me<br>Explore the natural world around them.<br>Begin to be aware about what they see, hear and feel whilst outside.<br>Begin to be aware of different environments.<br>Begin to be aware of the weather and the season they are in. | Celebrations and festivals<br>Explore the natural world around them.<br>Begin to describe what they see, hear and feel whilst outside.<br>Be aware of different environments.<br>Begin to understand the season they are in and how that effects the environment. | Terrific Tales<br>Explore the natural world around them.<br>Develop skill in describing what they see, hear and feel whilst outside.<br>Continue to recognise some environments that are different to the one in which they live.<br>Develop skill in understanding the effect of changing seasons on the natural world around them. | People who help us<br>Explore the natural world around them.<br>Describe what they see, hear and feel whilst outside.<br>Continue to recognise some environments that are different to the one in which they live.<br>Continue to develop skill in understanding the effect of changing seasons on the natural world around them. | Amazing animals<br>Explore the natural world around them<br>Describe what they see, hear and feel whilst outside.<br>Recognise some environments that are different to the one in which they live<br>Understand the effect of changing seasons on the natural world around them. | *Holidays*<br>*Explore the natural world around them.*<br>*Confidently describe what they see, hear and feel whilst outside.*<br>*Recognise some environments that are different to the one in which they live.*<br>*Understand the effect of changing seasons on the natural world around them.* |

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| Year 1 | <u>*SEASONAL CHANGES TO BE EXPLORED THROUGHOUT THE YEAR*</u><br><br>Ourselves<br>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.<br><br>*Animals including humans* | *Animals*<br><br>**Name common animals*<br>**Describe and compare the structure of animals*<br>** Introduce animal groups and carnivore, herbivore etc.*<br><br>*Animals including humans* | Materials<br>Identify and name everyday materials<br>Know the difference between object and material it is made from<br><br>Focus on identifying materials<br><br>*Materials* | Materials<br>Identify and name everyday materials<br>Know the difference between object and material it is made from<br>Describe simple properties<br><br>Focusing on Comparing Materials<br><br>*Materials* | What's growing in our Gardens?<br><br>*Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees<br>*Identify and describe the basic structure of a variety of common flowering plants, including trees.<br><br>*Plants* | *Seasons*<br>*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*<br><br>Sessoms |
| Year 2 | Living things and their habitats<br>Focusing on habitats<br>explore and compare the differences between things that are living, dead, and things that have never been alive<br>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<br>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.<br><br>Living things and their habitats | Living things and their habitats<br>Focusing on living things<br>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<br>identify and name a variety of plants and animals in their habitats, including microhabitats<br><br>Living things and their habitats | Uses of everyday materials<br>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses<br><br>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching<br><br>Materials | Uses of everyday materials<br><br>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses<br><br>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching<br><br>*Materials* | Healthy Animals<br><br>notice that animals, including humans, have offspring which grow into adults<br>find out about and describe the basic needs of animals, including humans, for survival (water, food and air)<br>describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene<br><br>Animals including humans | Plants-<br><br>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.<br><br>Plants |

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| Year 3 | Forces and magnets<br><br>Compare how things move on different surfaces<br><br>notice that some forces need contact between 2 objects, but magnetic forces can act at a distance<br><br>Compare how things move on different surfaces<br><br>notice that some forces need contact between 2 objects, but magnetic forces can act at a distance<br><br>observe how magnets attract or repel each other and attract some materials and not others<br><br>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<br>describe magnets as having 2 poles<br><br>Predict whether 2 magnets will attract or repel each other, depending on which poles are facing.<br><br>Forces | Forces and magnets<br><br>Compare how things move on different surfaces<br><br>notice that some forces need contact between 2 objects, but magnetic forces can act at a distance<br><br>Compare how things move on different surfaces<br><br>notice that some forces need contact between 2 objects, but magnetic forces can act at a distance<br><br>observe how magnets attract or repel each other and attract some materials and not others<br><br>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<br>describe magnets as having 2 poles<br><br>Predict whether 2 magnets will attract or repel each other, depending on which poles are facing.<br><br>Magnets | Keeping Healthy<br><br>identify 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<br>identify that humans and some other animals have skeletons and muscles for support, protection and movement<br><br>*Animals including humans* | Plants<br>identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers<br>explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant<br>investigate the way in which water is transported within plants<br>explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal<br><br>*Plants* | Rocks and fossils<br><br>compare and group together different kinds of rocks on the basis of their appearance and simple physical properties<br>describe in simple terms how fossils are formed when things that have lived are trapped within rock<br>recognise that soils are made from rocks and organic matter<br><br>Rocks and fossils | Light and Shadows<br>need light in order to see things and that dark is the absence of light<br><br>notice that light is reflected from surfaces<br><br>recognise that light from the sun can be dangerous and that there are ways to protect their eyes<br>recognise that shadows are formed when the light from a light source is blocked by an opaque object<br><br>find patterns in the way that the size of shadows change<br><br>Light |

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| Year 4 | It's Electric<br><br>* identify common appliances that run on electricity and construct a simple series electrical circuit.<br>*identify and name its basic parts, including cells, wires, bulbs, switches and buzzers<br>* 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.<br>*Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit<br>* Recognise some common conductors and insulators, and associate metals with being good conductors.<br><br>*Electricity* | Listen Up!<br><br>*identify how sounds are made, associating some of them with something vibrating<br>Recognise that vibrations from sounds travel through a medium to the ear Find patterns between the pitch of a sound and features of the object that produced it<br>* Find patterns between the volume of a sound and the strength of the vibrations that produced it<br>Recognise that sounds get fainter as the distance from the sound source increases.<br><br>*Sound* | States of Matter<br><br>*compare and group materials together, according to whether they are solids, liquids or gases<br>*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)<br>* identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.<br><br>*Materials* | States of Matter continued<br><br>*Materials* | Excuse Me are These Your Teeth?<br><br>*Describe the simple functions of the basic parts of the digestive system in humans.<br>*Identify the different types of teeth in humans and their simple functions<br>*construct and interpret a variety of food chains, identifying producers, predators and prey.<br><br>*Animals including humans* | Name That Thing!<br><br>*Recognise that living things can be grouped in a variety of ways.<br>*Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.<br>*Recognise that environments can change and that this can sometimes pose dangers to living things.<br><br>*Living things and their habitats* |
| Year 5 | Space<br><br>*Describe the movement of the Earth, and other planets, relative to the Sun in the solar system<br>*Describe the movement of the Moon relative to the Earth<br>*Describe the Sun, Earth and Moon as approximately spherical bodies<br>* Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.<br><br>Earth and space | Forces<br><br>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.<br>*Identify the effects of air resistance, water resistance and friction that act between moving surfaces.<br>*Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.<br><br>Forces | Materials<br>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.<br><br>*<br>Materials- | Materials<br><br>Continued<br>*<br>Materials- | The Art of Living<br><br>*Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.<br>*Describe the life process of reproduction in some plants and animals.<br><br>Living things and their habitats | The Art of living continued<br><br>Describe the changes as humans develop to old age.<br><br>Animals including humans<br>. |
| Year 6 | Light | Electric Celebrations | The Survival Game | Living Things and Their Habitats- | The Art of Being Human | The Art of Being Human<br><br>*Continued |

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| | *Recognise that light appears to travel in straight lines.<br>*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.<br>*Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.<br>*Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.<br><br>*Light* | *Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.<br>*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.<br>*Use recognised symbols when representing a simple circuit in a diagram.<br><br>*Electricity* | *Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.<br>*Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents<br>*Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.<br><br>*Evolution and inheritance* | *Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals<br>*Give reasons for classifying plants and animals based on specific characteristics<br><br>Living things and their habitats | *Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood<br>*Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.<br>*Describe the ways in which nutrients and water are transported within animals, including humans.<br><br>*Animals including humans* | Animals including humans |