# Science Curriculum Map

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|---|---|---|---|---|---|---|
| EYFS | Animals including humans<br>To name body parts. To know some foods are healthy and unhealthy – doctors/ nurses. To know that our teeth need to be cared for – dentist. To know that the simple life cycle of a human – baby – child – adult. | | To name some animals from around the world. To know that we live on Planet Earth and there are many countries and oceans. To know that parts of Earth are hot and cold and can talk using a world map or globe. To know that different animals are found across the world using a world map and globe. | Plants<br>To know that plants and flowers come from seeds or bulbs. To know names of some plants, trees, flowers and herbs. To know parts of a plant. To plant a sunflower and know it needs sun and water to grow. To sow a pumpkin seed ready to harvest in Y1. | | Animals including humans<br>To know the life cycle of a butterfly.<br>To name minibeasts found in our local environment. |
| | EYFS observe seasons and notice changes throughout the school year. | | | | | |
| EYFS WS | Brown Apples –<br>**Plan** Do Review – Ask questions and plan enquiry<br>We will predict which apples turn brown first and explain our predictions. | Incy Shelter<br>**Plan** Do Review- Set up enquiry<br>We will explore and perform a simple test. We will test different materials to sort by waterproofness. We will use and test a chosen material to build a shelter. | Senses Walk<br>Plan **Do** Review- Observe and measure<br>We will explore the environment and make observations. We will use our senses to observe the local environment and talk about our observations. | Scavenger Sort<br>Plan **Do** Review- Record<br>We will gather and sort objects into sets. We will apply criteria for how sets have been arranged. | Toy Forces<br>Plan Do **Review –** Interpret and report<br>We will communicate our findings to others verbally and through drawings, photographs, displays and simple charts. We will communicate toy movements. We will explain how we have grouped and labelled toys. | Bubble Snake<br>Plan Do **Review** – Evaluate<br>We will explore and communicate ideas. We will explore bubble snakes and discuss our findings. We will describe the effect of using different materials. |
| Year 1 | Seasonal changes – Autumn and Winter<br>We will observe changes across the seasons.<br>We will also observe and describe weather associated with the seasons and how day length varies | Everyday materials<br>We will distinguish between an object and the variety of materials they are made from, including wood, plastic, glass, metal, water and rock. | Animals<br>We will identify a variety of common animals including fish, amphibians, reptiles, birds and mammals. We will identify and name a variety of common animals that are carnivores, herbivores and omnivores. | Plants<br>We will identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. We will describe the basic structure of a variety of common flowering plants, including trees. | Seasonal changes – Spring and Summer<br>We will observe changes across the seasons.<br>We will also observe and describe weather associated with the seasons and how day length varies | Humans<br>We will identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. |
| Year 1 WS | Seasons: Seasonal Change<br>Plan Do **Review** Record – Gather and record data to help in answering questions. We will observe changes across the seasons. We will record and discuss changes across the seasons. | Materials: Transparent materials<br>**Plan** Do Review Set up enquiry – Perform simple tests. We will test whether materials are opaque or transparent. We will compare materials on the basis of their transparency. | Animals including Humans: Animal classification<br>Plan Do **Review** Interpret and Record – Identify and classify. Use appropriate scientific language to communicate ideas. | Plants: Structure<br>Plan **Do** Review Observe and Measure – Observe closely, using simple equipment. | Seasons: Seasonal Change<br>Plan Do **Review** Record – Gather and record data to help in answering questions | Animals including Humans: Body Parts<br>Plan Do **Review** Evaluate: Use their observations and ideas to suggest answers to questions. We will observe and name parts of the human body. We will use observations to say which part of the body is associated with each sense. |
| Year 2 | Living things and their habitats<br>We will explore and compare the differences between things that are living, dead or that never lived. We will investigate habitats, including microhabitats and learn about the basic needs of living things, including simple food chains. | Use of everyday materials<br>We will identify and compare the suitability of a variety of everyday materials and learn why they are best suited for particular uses. | Animals including humans<br>We will learn that animals, including humans, have offspring which grow into adults and explore different life cycles, including those involving metamorphosis. | Animals including Humans<br>We will learn about the basic needs for survival. We will learn about the importance for humans of exercise, hygiene and eating the right amounts of different types of food. | Plants<br>Children will observe and describe how seeds and bulbs grow into mature plants. We will also find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. | |
| Year 2 WS | Living Things: Nature Spotters<br>Plan Do Review<br>Interpret and Report – Identify and Classify using appropriate scientific language to communicate ideas. We will use a spotter sheet to identify plants and animals. We will classify types of plants and animals that we have found. | Materials: Rocket Mice<br>Plan Do Review<br>Set up Enquiry – Perform simple tests We will be systematic in our testing. We will use our tests to suggest answers to questions. | Living Things: Woodlice Habitats<br>Plan Do Review<br>Record – Gather and record data to help in answering questions. We will gather and record data in a tally chart or on a map. We will discuss our findings in relation to preferred habitats. | Animals including Humans: Hand spans<br>Plan Do Review<br>Evaluate – Use their observations and ideas to suggest answers to questions. We will use our observations to compare different hand pans. We will suggest answer to questions about hand spans. | Plants: Compare Growth<br>Plan Do Review<br>Observe and Measure – Observe closely, using simple equipment. We will observe closely and notice difference and similarities. We will measure and compare the height of plants. | |

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| Year 3 | Animals including humans<br>We will 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. We will learn how the skeleton supports our functions. | Plants<br>We will identify and describe the functions of different parts of flowering plants and explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. | Rocks<br>We will compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. We will also describe in simple terms how fossils are formed when things that have lived are trapped within rock. | Forces and Magnets<br>We will compare how things move on different surfaces and compare how different forces act on objects around us. | Light<br>We will learn about light and how shadows are formed. We will also learn to recognise that they need light in order to see things and that dark is the absence of light. | Plants<br>We will 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. Also we will learn the ways in which water is transported within plants. |
| Year 3 WS | Animals inc Humans: Investigating Skeletons<br>**Plan** Do Review Ask questions and plan enquiry. Ask relevant questions and use different types of scientific enquiries to answer them. We will ask questions about the diversity of a human skeleton. We will turn our questions into forms of investigation. | Plants: Measuring Plants<br>Plan **Do** Review Observe and Measure – Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. We will use simple apparatus to measure water / height. We will record our measurements. | Rocks: Rock Reports<br>Plan Do **Review** Interpret and Report – Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. We will group rocks based on properties. We will talk about, draw diagrams and write about our findings. We will draw conclusions about the least / most wearing rock. | Forces: Shoe Grip / Strongest Magnet<br>**Plan Do** Review<br>Set up enquiry – Set up simple practical enquiries, comparative and fair tests. We will test which shoe has the best grip. | Light: Making Shadows<br>Plan **Do** Review Record – Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagram, keys, bar charts and tables. We will make a series of careful observations. We will record our observations in a systematic way. | Plants: Function of Stem<br>Plan Do **Review** Evaluate – Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Use straightforward scientific evidence to answer questions or to support their findings. We will make careful observations. We will use our observations to suggest how water is transported. |
| Year 4 | Animal including humans<br>We will learn about the function of the digestive system in humans and learn to identify types of teeth and their functions. | | Electricity<br>We will learn to identify appliances that run on electricity and how to construct simple electrical circuits including cells, wires, bulbs switches and buzzers. We will also learn about common conductors and insulators and associate metals with being good conductors. | States of Matter<br>We will group and compare materials, according to whether they are solids, liquids or gases. We observe changes of state when they are heated or cooled and how evaporation and condensation are a part of the water cycle | Living things and their habitats<br>We will recognise how living things can grouped and use classification keys to help group, identify and name living things in their local and wider environment. We will also look at how changed in environment can sometimes pose dangers to living things. | Sound<br>We will learn about how sounds are made and recognise that vibrations from sounds travel to the ear. We will learn about how the pitch and the volume of a sound are linked to the object that produces it and that sounds get fainter as distance increases. |
| Year 4 WS | Animals inc Humans: Teeth (eggs in liquid)<br>Plan Do **Review** Evaluate – Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Use straightforward scientific evidence to answer questions or to support their findings. | | Electricity: Conductors<br>Plan Do **Review** Interpret and Report – Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Identify differences, similarities or changes related to simple scientific ideas and processes. We will recognise common conductors and insulators. | Materials: Measure Temperature<br>Plan **Do** Review Observe and Measure – Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. We will use thermometers to measure temperature accurately. | Animals inc Humans: Local Survey of Living Things<br>Plan Do **Review** Record - Children will learn to record. They will gather, record, classify and present data in a variety of ways to help in answering questions. They will record findings using simple scientific language, drawings, labelled diagram, keys, bar charts and tables. We will group living things in different ways. | Sound: Investigating Pitch<br>**Plan** Do Review Ask Questions and plan enquiry – Ask relevant questions and use different types of scientific enquiries to answer them. We will suggest ways to alter pitch. We will carry out tests based on our own ideas. |
| Year 5 | Earth and space<br>We will learn about the planets in the solar system and understand the movement of the Earth, Sun and Moon using the idea of the Earth's rotation to explain day and night, and the apparent movement of the sun across the sky. | Forces<br>We will learn more about gravity. including the effects of air resistance, water resistance and friction, that act between moving surfaces<br>We will recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect. | Properties and changes of materials (Part 1)<br>We will compare and group together everyday materials on the basis of their properties, including their response to magnets. We will give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. | Properties and changes of materials (Part 2)<br>We will learn that some materials will dissolve and describe how to recover a substance from a solution and decide how mixtures might be separated, including through filtering, sieving and evaporating. | Living things and their habitats<br>We will learn to describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. We will begin to describe the life process of reproduction in some plants and animals. | |
| Year 5 WS | Space: Craters<br>Plan **Do** Review<br>Record – Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graph. | Forces: Aqua dynamics<br>Plan Do **Review**<br>Evaluate – Explain degree of trust in results. Identify and evaluate scientific evidence (their own and others') that has been used to support or refute ideas or arguments. | Materials: Nappies<br>**Plan** Do Review<br>Plan: Plan different types of scientific enquiry, including recognising and controlling variables. We will plan and carry out a fair test to compare absorbency of different nappy brands. | Materials: Dirty water filter<br>Plan Do **Review**<br>Review: Presents findings. Collates, organises and summarises findings. We will use our investigation outcome to design the ultimate water filter. | Living things Seed dispersal survey<br>**Do**: Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar graphs. We will identify how different plants disperse their seeds. | |
| Year 6 | Light<br>We will learn how light travels and use this knowledge to explain how objects are seen. We will use this information to explain how shadows are formed and cast shadows as the shape of objects. | Electricity<br>We will learn how to create simple circuits (including using the correct symbols in diagrams) and associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. | Animals Including Humans<br>We will identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. | Animals Including Humans<br>We will recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. We will describe the ways in which nutrients and water are transported within animals, including humans. | Living things and their habitats<br>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. | Evolution and Inheritance<br>We will learn to understand how living things have changed over time including how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. |
| Year 6 WS | Light: Investigating Shadows<br>Plan **Do** Review -Observe and Measure. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. | Electricity: Bulb Brightness<br>**Plan** Do Review- Ask questions and plan enquiry. Plan different types of scientific enquiries to answer their own questions, including recognising and controlling variables where necessary. | Animals inc Humans: Heart Rate<br>**Plan Do** Review - Set Up Enquiry. Use test results to make predictions to set up further comparative and fair tests. | Animals inc Humans: Growth Survey<br>Plan **Do** Review- Observe and Measure – Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. | Living Things: Invertebrate / Life Cycle research<br>Plan Do **Review -** Interpret and Report. Report and present findings from enquiries, including conclusions and casual relationships, in oral and written forms using appropriate scientific language. We will report and present information about an invertebrate classification group. | Evolution: Fossil Habitats / Egg Strength<br>Plan Do **Review** Evaluate – Explain degree of trust in results. Identify and evaluate scientific evidence (their own and others') that has been used to support or refute ideas or arguments. |