

## Hart Side Curriculum 2022-23

Science	Animals Including Humans	Forces	Sound	Plants	Uses of Everyday Materials and States of Matter	Scientists and Inventors
Year 3/4 Cycle A	Autumn (1) 7 weeks	Autumn (2) 8 weeks	Spring (1) 6 weeks	Spring (2) 6 weeks	Summer (1) 5 weeks	Summer (2) 6 weeks
<b>What We Will Learn</b>	Pupils will learn about Animals Including Humans and will discuss and describe 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. They will construct and interpret a variety of food chains, identifying producers, predators and prey.	Pupils will learn about Forces and they will compare how things move on different surfaces, they will discuss that some forces need contact between 2 objects, but magnetic forces can act at a distance; observe how magnets attract or repel each other and attract some materials and not others. They will 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. They will describe magnets as having 2 poles and predict whether 2 magnets will attract or repel each other, depending on which poles are facing.	Pupils will learn how to identify how sounds are made, associating some of them with something vibrating, they will recognise that vibrations from sounds travel through a medium to the ear, they will find patterns between the pitch of a sound and features of the object that produced it. They will find patterns between the volume of a sound and the strength of the vibrations that produced it. Pupils will recognise that sounds get fainter as the distance from the sound source increases.	Pupils will learn how to identify the different parts of flowering plants. They will predict what will happen in an investigation. They will make observations. They will identify the main stages of the life cycle of flowering plants.	Pupils will learn how to 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.	Pupils will consolidate prior learning from throughout the year and will link scientists to all units of work studied within the year.
<b>What We Will Do</b>	Pupils will generate questions and use scientific evidence that is given to answer questions. Identify similarities related to scientific ideas. Set up a simple enquiry with support. Make observations, record findings and use results to draw simple conclusions. Name parts of the digestive system. Add functions to the parts of the digestive system. Identify the function of teeth in humans. Construct a simple food chain.	Pupils will Identify forces as pushes and pulls. Describe friction as a force that slows objects down. Feel the pulling force of a magnet. Sort materials according to whether they are magnetic or not. Participate in an investigation into magnet strength. Identify the different poles of a bar magnet. Use a magnetic compass with four points. Make a prediction. They will construct a bar chart on labelled axes. Form a conclusion from their results.	Pupils will describe sounds around them. Identify high and low sounds. Identify loud and quiet sounds. Observe how different sounds are made. Describe how sounds change over distance. Participate in an investigation to find the best material for absorbing sound. Answer questions based on their learning using prompts. Create a musical instrument that will play different sounds. Predict what will happen in an investigation. Make observations.	Pupils will identify and describe the functions of different parts of flowering plants: roots, stem 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. Pupils will investigate the way in which water is transported within plants and explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	Pupils will sort materials into solids, liquids and gases. Explain that heating causes melting, and cooling causes freezing. Identify the melting and freezing point of water. Describe evaporation and condensation using practical examples and describe the effect of temperature on evaporation referring to their investigation. They will Identify the stages of the water cycle. Predict what will happen in an investigation and make observations.	Pupils will find plants in the local area. Give the names of four people who brought new plants to Britain. Learn about Marie Curie's life and work. Give four facts about William Smith's life and his work about fossils. Learn facts about Inge Lehmann's life and work. Describe the Earth's core as solid iron. Explain how igneous rocks are made. Identify concave and convex mirrors as curved mirrors. Learn about electromagnets as magnets powered by electricity.
<b>Skills Learned</b>	They will describe the simple functions of the basic parts of the digestive system in humans, identify the different types of teeth in humans and their simple functions, construct and interpret a variety of food chains, identifying producers, predators and prey.	Pupils will be developing their skills in observing and measuring forces through investigating magnets. <b>(exploring, classifying and identifying )</b>	They will be able to recognise and identify sounds and vibrations and find patterns between the pitch of the sound.	Pupils will be able to use secondary sources to discover the parts of a plant and how they vary. Identify variety of different plants making labelled sketches <b>(analysing secondary sources/ exploring)</b>	Pupils will develop simple descriptions of the states of matter, report on findings from enquiries, using relevant scientific language, including oral and written.	Pupils will use a variety of skills to be able to draw on conclusions, they will observe changes in patterns and be able to presenting their findings.