

Collingwood Primary – Whole School **SCIENCE** Overview

	Autumn	Spring	Summer	Other opportunities
Year 1	<p>Everyday Materials – distinguish between an object and material, group them according to their physical properties.</p> <p>Seasonal changes – observe changes and describe weather across the four seasons.</p>	<p>Animals including humans – identify and name common animals.</p> <p>Seasonal changes</p>	<p>Plants – identify and name wild and garden plants, describe their basic structure.</p> <p>Seasonal changes</p>	<p>Famous Scientists – Ole Kirk Christensen Charles Darwin Stephen Hawking</p> <p>Trips/visitors – Nurse Jane – hand washing/health</p>
Year 2	<p>Everyday materials – identify and compare suitability of materials. Find out how some solid objects can have their shape changed.</p>	<p>Living things and habitats – explore the living, dead and things that have never been alive, looking at their habitats and how they are suited to them. Look at simple food chains and name different food sources.</p> <p>Animals including humans – Notice that animals have offspring that grow into adults, describe their basic needs and the importance of exercise, food and hygiene.</p>	<p>Plants – observe and describe how seeds and bulbs grow and what they need to do this.</p>	<p>Famous Scientists – John Dunlop Charles Macintosh David Attenborough William Walker Hunter</p> <p>Trips/visitors – Bread making Nurse Jane – Healthy bodies</p>
Year 3	<p>Animals including humans – identify that animals need nutrition and how they get it from what they eat. Identify how some animals have skeletons and muscles.</p> <p>Forces – compare how things move on different surfaces. Observe and predict how magnets attract and repel due to their poles. Compare and group materials on how they are attracted to magnets.</p>	<p>Light – recognise that they need light in order to see things, that it is reflected from surfaces and that shadows are formed when light is blocked. Recognise that the sun can be dangerous.</p> <p>Rocks – compare and group different rocks on physical properties, look at how rocks are formed and recognise that soils are made from rocks.</p>	<p>Plants – identify and describe different parts of plants and explore what they need for life and growth. Explore the part that flowers play in the life cycle and the way water is transported.</p>	<p>Famous Scientists – Marie Curie George Washington Carver William Smith</p> <p>Trips/visitors – Cooking at Norham – healthy eating</p>

<p>Year 4</p>	<p>Sound – identify how they are made and recognise vibrations travel through to the ear. Find patterns between pitch and the object, volume and strength of the vibration.</p> <p>Electricity – identify appliances, construct a simple series circuit, naming its parts. Recognise that switches open and close a circuit. Recognise some conductors and insulators.</p>	<p>Animals including humans – describe the functions of the digestive system. Identify different types of teeth and their functions. Construct and interpret food chains.</p>	<p>Living things and their habitats – recognise that they can be grouped in different ways, use classification to help identify and name living things. Recognise that environments can change and can pose dangers to living things.</p> <p>States of matter – compare and group materials and observe how some can change state. Identify the part played by evaporation and condensation in the water cycle.</p>	<p>Famous Scientists – Edison Davinci</p> <p>Trips/visitors – Owl sanctuary visit Whale workshop</p>
<p>Year 5</p>	<p>Properties and changes of materials – compare and group together on their properties and give reasons for their particular use. Know that some materials dissolve in liquids and find out how they might be separated.</p> <p>Forces – explain how objects fall due to gravity. Identify effects of air and water resistance and friction. Recognise mechanisms have an effect on force.</p>	<p>Earth and Space – describe the movement of the Earth and planets in relation to the sun, describe the movement of the moon in relation to the earth. Use the earth's rotation to explain day and night.</p> <p>Animals including humans – describe the changes as humans develop into old age.</p>	<p>Living things and habitats – describe differences in life cycles and describe the life process of reproduction in some plants and animals.</p>	<p>Famous Scientists – Aristarchus Galileo Darwin Durrell Doppler Archimedes</p> <p>Trips/visitors – Norham's Science department Hoops for Health Centre for Life trip.</p>
<p>Year 6</p>	<p>Animals including humans (The art of being human) – identify and name parts of the circulatory system, recognise the impact of lifestyle on the body.</p> <p>Light (Crime lab investigation) – light appears to travel in straight lines and how objects can be seen. Explain why shadows keep the shape.</p>	<p>Electricity (Electric celebration) – associate brightness/volume with the number and voltage of cells. Look at the functions of components and their symbols.</p> <p>Living things and their habitats (Classification connoisseur) – describe how living things are classified and give reasons for classifying plants and animals.</p>	<p>Evolution and inheritance (The game of survival) – recognise how they have changed over time and that they produce offspring. Recognise how they adapt to their environment.</p>	<p>Famous Scientists – William Armstrong Carl Linnaeus</p> <p>Trips/visitors – Hoops for Health</p>