

Science Curriculum

It is our intention to provide a high-quality Science education that provides children with the foundations they need to recognise the importance of Science in every aspect of daily life, stimulates pupil's curiosity and develops their sense of enquiry.

The Primary Knowledge Curriculum is used to plan The Duston School Science curriculum. The curriculum is well sequenced (eg. The Human Body is revisited and built upon at the beginning of each academic year) and the knowledge taught is valued and specified (eg. A diverse range of scientists are taught). Knowledge is taught to be remembered through retrieval practice and prior knowledge being revisited. Substantive and disciplinary knowledge are intertwined and revisited to ensure that children have a firm understanding of key concepts.

Discrete Science lessons are taught, recognising the identity of the discipline, fostering a love for Science content that will flourish as children move through the curriculum. Links are made across the curriculum, where appropriate, so that children make connections to further embed their learning.

Curriculum Map and Key Knowledge Goals						
EYFS						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	All About Me Know that the body has many different parts. Know that the body can do amazing things.	Transport – Past and Present Know that there are different types of water transport around the world (floating)	Space Know that we live on Earth. Know that there are planets in our solar system.	Growing and Changing Know that we have four seasons. Know that plants need water and light to grow.	Kings and Queens Think about how we could improve our school or local area.	Stories from the Past Know that animals are often important in stories.
Key Stage 1						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	The Human Body Identify, name, label and draw the basic parts of the human body. Identify and label parts of our body relating to our senses.	Animals and their Needs Describe a variety of animals using scientific vocabulary. Know that animals can be grouped by their features.	Seasons and Weather Understand how the weather changes throughout the year. Explain the importance of accurate forecasts.	Taking Care of the Earth Identify some of the ways in which the environment can be polluted.	Plants Name and describe the purpose of parts of a plant, and what they need to grow.	Materials and Magnets Know that materials have different properties. Know that Magnetism is a force we cannot see.
Year 2	The Human Body Know that our bodies contain bones and muscles. Know that our digestive system takes nutrients from food to help us stay healthy.	Living Things and their Environment Understand that habitats provide for the basic needs of the plants and animals.	Electricity Know that electricity is an energy that we can store or use to make things work.	Plants Find out and describe how plants need water, light and a suitable temperature to stay healthy.	Materials and Matter Know that the materials used around us have different properties. To know that liquids flow freely	Astronomy Know about the planets in our solar system. Know that Earth travels around the sun. Know that the moon orbits the earth.

	Lower Key Stage 2					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	The Human Body Know that the brain is the centre of the nervous system. Describe the simple functions of the basic parts of the digestive system	Cycles in Nature Know that our natural environment changes as the seasons change. Understand how plants can change through the seasons.	Rocks Know there are many different types of rocks. Know that geologists sort rocks into three main groups. Understand that some rocks allow water to pass through.	Forces and Magnets Know that a force is a push or a pull. Know that friction is the force between two surfaces. Know that magnets have an invisible push or pull force.	Plants Know that different plants need different amounts of things in order to thrive. To understand the role of different parts of a plant.	Light Know that we need light to see things. Know that transparent and opaque materials effect light passing through.
Year 4	The Human Body Know that cells are the building blocks of the human body. Know the essential vitamins and minerals a body needs.	Classification of Plants and Animals Understand that we can classify animals and plants. Know that fish and amphibians are vertebrates.	Ecology Know that living things depend on their habitats. Understand that living things are linked within a food chain.	Sound Understand how sound is produced and how it travels. Know that vibrations in sound waves travel through the different parts of the ear.	States of Matter and the Water Cycle Know that condensation occurs when water vapour turns into liquid. Know that precipitation returns water to the surface of the Earth.	Electricity Know that electricity is useful, but also dangerous. To know how to construct an electrical circuit.
	Upper Key Stage 2					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	The Human Body Recognise the first stages of human growth; gestation, birth and infancy. To know that the human body changes as it goes through puberty.	Materials Understand that materials can be grouped according to their properties. Know that a solution is a mixture of a solid in a liquid.	Living Things Know that mammals and amphibians have different life cycles. To know that flowering plants need pollen to reproduce.	Forces Know that a force is either a push or a pull. Know that friction occurs when two objects move against each other.	Astronomy Understand that gravity is a force that holds objects together. Know the planets of our Solar System. Understand the Moon's phases.	Meteorology Know the atmosphere protects Earth and enables life. Know that human actions impact the atmosphere.
Year 6	The Human Body Know that the heart pumps blood around the body. Know that blood vessels transport blood around the body.	Classification of Living Things Know there are five kingdoms of organisms. Know that plant and animal cells are different.	Electricity Know that electricity flows in a circuit. Know how the number of cells and voltage affects buzzers and bulbs.	Light Know that light is a source of illumination that allows us to see. Know what light is made of and how a prism works.	Reproduction Understand sexual reproduction in flowering plants. Understand sexual reproduction in animals.	Evolution Know offspring are usually similar to, but not identical to their parents. Know living things can adapt to suit their environment.