



Science

Curriculum Map

Science Overview



		Autumn 1	Autumn 2	Spring 1 & 2	Summer 1	Summer 2
Year 6	Unit	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
	Topic	Light	Classification	Evolution and Inheritance	Electricity	Circulatory system and lifestyle.
	Knowledge	Pupils will learn: <ul style="list-style-type: none"> Light travels in straight lines and objects are seen because they give out or reflect light into the eye. As light travels in straight lines shadows have the same shape as the objects that cast them. 	Pupils will learn: <ul style="list-style-type: none"> Living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants, and animals. 	Pupils will learn: <ul style="list-style-type: none"> Living things have changed over time and fossils provide information from millions of years ago. Living things produce offspring of the same kind. Animals and plants are adapted to suit their environment and may lead to evolution. 	Pupils will learn: <ul style="list-style-type: none"> The brightness of a lamp or the volume of a buzzer is associated with the number and voltage of cells used in the circuit and switches can be used to turn components on and off in a circuit. Circuit symbols are used when representing a simple circuit in a diagram. 	Pupils will learn: <ul style="list-style-type: none"> The main parts of the human circulatory system include the heart, blood vessels, and blood. Nutrients and water are transported in the blood. Diet, exercise, drugs, and lifestyle can all affect the way our bodies function.
Year 5	Unit	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
	Topic	Earth and Space	Forces	Materials	Life Cycles	Growing Older
	Knowledge	Pupils will learn: <ul style="list-style-type: none"> Earth and other planets in the Solar System orbit around the Sun. 	Pupils will learn: <ul style="list-style-type: none"> Unsupported objects fall towards Earth because of the force of gravity. 	Pupils will learn: <ul style="list-style-type: none"> Properties of materials and everyday materials. Some materials will dissolve in liquid to 	Pupils will learn: <ul style="list-style-type: none"> There are differences in the life cycles of mammals, amphibians, insects, and birds. 	Pupils will learn: <ul style="list-style-type: none"> Humans experience a number of changes as they develop to old age.

		<ul style="list-style-type: none"> The Moon orbits round Earth. The rotation of Earth results in day and night. 	<ul style="list-style-type: none"> Air resistance, water resistance, and friction act between moving surfaces. 	<ul style="list-style-type: none"> form a solution, mixtures can be separated. Changes of state and reversible changes. 	<ul style="list-style-type: none"> Plants and animals produce offspring by the life process of reproduction. 	
Year 4	Unit	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
	Topic	Teeth and Digestion	States of Matter	Living things and Environments	Sound	Electricity
	Knowledge	<p>Pupils will learn:</p> <ul style="list-style-type: none"> The human digestive system contains a number of organs including the mouth, stomach, oesophagus, and intestines. The main types of human teeth are incisors, canines, molars, and premolars. Each type of tooth looks different and has a different function. 	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Materials can be grouped as solids, liquids, or gases. Materials can change state when they are heated or cooled. Evaporation and condensation are key processes in the water cycle. Rate of evaporation is affected by temperature. 	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Living things can be grouped in a variety of ways. Classification keys can be used to help group, identify and name living things. Environments can change and this can sometimes pose dangers to living things. 	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Sounds are made when something vibrates and vibrations travel through a medium to the ear. The pitch of a sound is affected by how quickly an object vibrates. The volume of a sound is determined by the strength of the vibrations and sounds get fainter as the distance from the sound source increase. 	<p>Pupils will learn:</p> <ul style="list-style-type: none"> The brightness of a lamp or the volume of a buzzer is associated with the number and voltage of cells used in the circuit. Switches can be used to turn components on and off in a circuit. Circuit symbols are used when representing a simple circuit in a diagram.
Year 3	Unit	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
	Topic	Skeletons, muscles and nutrition	Rocks and fossils	Lights and Shadows	Plants - Needs for survival	Forces and Magnets

	Knowledge	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Animals, including humans, need the right types and amount of nutrition. Animals cannot make their own food. Humans and some other animals have skeletons and muscles for support, protection, and movement. 	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Rocks can be grouped by their appearance and simple physical properties. Fossils are formed when things that have lived are trapped within rock. Soils are made from rocks and organic matter. 	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Light is needed to see things and darkness is the absence of light. Light is reflected from surfaces but light from the sun can be dangerous. Shadows are formed when the light from a light source is blocked by an opaque object and there are patterns in the way shadows change. 	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Flowering plants have roots, a stem/trunk, leaves, and flowers. Plants require air, light, water, nutrients from the soil, and room to grow and water is transported within plants in vessels. Flowers play an important role in the life cycle of flowering plants. 	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Objects experience different amounts of friction on different surfaces. Some forces need contact between two objects. Some materials are magnetic, magnets have two poles and can attract or repel each other.
Year 2	Unit	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
	Topic	Use of materials	Animals and survival	Habitats	Protecting the environment	Plants and Growth
	Knowledge	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Everyday materials and how materials are chosen to make an object or device are based on the suitability of its properties. 	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Animals, including humans, have offspring which grow into adults Basic need of humans and how to remain healthy. 	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Things can be living, dead, or never been alive. Plants and animals live in a variety of habitats, including microhabitats. Simple food chains of animals and plants. 	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Humans and their activities pose dangers to wildlife and where possible materials should be recycled and a sustainable supply of water and energy must be used efficiently. Trees are a source of food, fuel, oxygen, and timber and provide a habitat for many animals. 	<p>Pupils will learn:</p> <ul style="list-style-type: none"> Seeds and bulbs grow into mature plants. Plants need water, light, and a suitable temperature to grow and stay healthy.
Year 1	Unit	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5

	Topic	Everyday Materials	Autumn and Winter	Amazing Animals	Spring and Summer	Plants
	Knowledge	Pupils will learn: <ul style="list-style-type: none"> • Objects can be made from a variety of materials. • Everyday materials include wood, plastic, glass, metal, water, and rock. • Different materials have different physical properties. 	Pupils will learn: <ul style="list-style-type: none"> • There are four seasons—autumn, winter, spring, and summer. • Different types of weather are associated with different seasons. • Day length varies in different seasons. 	Pupils will learn: <ul style="list-style-type: none"> • Animals can be grouped into carnivores, herbivores, and omnivores by the food they eat. • The human body is made of many different parts; each has its own function. 	Pupils will learn: <ul style="list-style-type: none"> • There are four seasons—autumn, winter, spring, and summer. • Different types of weather are associated with different seasons. • Day length varies in different seasons. 	Pupils will learn: <ul style="list-style-type: none"> • A plant is a living thing. • The main parts of a plant are the stem, leaves, and roots. • Plants can be grown by people or grow in the wild.
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