



Science Overview

EYFS

	Autumn	Spring	Summer
	Working Scientifically / Enquiry		
Reception			
Understanding the world	<p>Explore the natural world around them. Describe what they see, hear and feel while they are outside. Recognise some environments that are different to the one in which they live. Understand the effect of changing seasons on the natural world around them.</p>		
Personal, Social and Emotional development	<p>Know and talk about the different factors that support their overall health and wellbeing: - regular physical activity - healthy eating - toothbrushing - sensible amounts of 'screen time' - having a good sleep routine - being a safe pedestrian</p>		
Communication and language	<p>Learn new vocabulary. Ask questions to find out more and to check what has been said to them. Articulate their ideas and thoughts in well-formed sentences. Describe events in some detail. Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. Use new vocabulary in different contexts.</p>		



Science Overview

Year 1

	Autumn		Spring		Summer
	Working scientifically Enquiry				
Year 1	Animals including Humans All about me	Animals including Humans All about animals	Everyday materials - Exploring everyday materials	Everyday materials - Building (based on the Three Little Pigs)	Plants
	Seasonal Changes				
	<ul style="list-style-type: none"> Discover the basic parts of the human body Learn about ears and hearing Learn about eyes and sight Explore the tongue and taste Explore the sense of touch Discover how your nose smells Understand there are four seasons 	<ul style="list-style-type: none"> Discover animal families Learn about the differences between mammals and birds Learn about the differences between amphibians, reptiles and fish Discover the types of food living things eat Explore the difference between wild animals and pets Understand the changes that take place in autumn 	<ul style="list-style-type: none"> Identify and name a variety of everyday materials Distinguish between an object and the material it is made from Describe the properties of everyday materials Identify objects that are natural and those that are manmade Predict and identify if an object will float or sink Explore which materials are best for different objects Understand the changes that take place in winter 	<ul style="list-style-type: none"> Build a structure strong enough to withstand wind Build a waterproof structure Understand the properties of glass and its uses Understand that materials are used to create a variety of furniture Explore a variety of fabrics and understand their different properties Understand the changes that take place in Spring 	<ul style="list-style-type: none"> Investigate how you can measure rainfall Understand that seeds grow into plants Identify the basic parts of a plant and tree Understand that different plants can grow in the same environment Know the difference between deciduous and evergreen trees Know that fruit trees and vegetables are varieties of plants Record the growth of a plant Understand the changes that take place in Summer



Science Overview

Year 2

	Autumn		Spring		Summer	
	Working Scientifically / Enquiry					
Year 2	Animals including humans Health & survival	Animals including humans Life Cycles	Uses of everyday materials	Plants	Living things and their habitats	Living Things and their habitats – Habitats from around the world
	<ul style="list-style-type: none"> Describe the needs of animals for survival Describe the needs of humans, for survival Explore the importance of eating the right food Describe what a healthy, balanced diet looks like Investigate the impact of exercise on our bodies Investigate the importance of hygiene 	<ul style="list-style-type: none"> Explore the life cycle of a chicken Describe the life cycle of a butterfly Explore the life cycle of a frog Order the stages of the human life cycle Describe the stages of a human life cycle 	<ul style="list-style-type: none"> Identify different materials and their uses Understand how to select the right materials to build a bridge Explore and test the stretchiness of materials Understand that materials can change their shape by twisting, bending, squashing or stretching Find out about Charles Macintosh and explore how materials are suitable for different purpose Discover which materials change shape when making a road with John McAdam 	<ul style="list-style-type: none"> Know the difference between seeds and bulbs Design an experiment to find out what plants need to grow Describe what plants need to grow and stay healthy Describe the life cycle of a plant Observe and record the growth of plants over time Understand that plants adapt to suit their environment 	<ul style="list-style-type: none"> Explore and compare the differences between things that are living, dead, and things that have never been alive Identify and name a variety of plants and animals in a microhabitat Design a suitable microhabitat where living things could survive Find out what animals eat to survive in their habitats Understand a food chain Understand the journey food makes from the farm to the supermarket 	<ul style="list-style-type: none"> Learn about habitats Appreciate that environments are constantly changing Explore the rainforest and its problems Describe life in the ocean Discover the Arctic and Antarctic habitat Create a model of a habitat



Science Overview

Year 3

	Autumn	Spring			Summer	
	Working Scientifically / Enquiry					
Year 3	Scientific Enquiry	Rocks	Animals including humans	Light	Plants	Forces and Magnets
	<ul style="list-style-type: none"> How can a solar oven be made more effective: posing questions and writing predictions How can a solar oven be made more effective: recording and presenting results Cleaning coins: writing a method and carrying out a practical test Cleaning coins: writing a conclusion Making a cake: fair testing, controls and variables Making a cake: scientific enquiry 	<ul style="list-style-type: none"> Explore the formation and properties of igneous rocks Explore the formation and properties of sedimentary and metamorphic rocks Weathering and the suitability of rocks for different purpose Explore how water contributes to the weathering of rocks Understand how fossils are formed Explore different types of soil 	<ul style="list-style-type: none"> Explore the 5 key food groups Learn about the nutrition in the food we eat Learn about the different types of skeletons Learn about the human skeleton Learn about animals and their skeletons Explore the role of muscles 	<ul style="list-style-type: none"> Identify the difference between light sources and non light sources Explore the light that comes from the sun and how to stay safe Explore materials which are reflective Discover how shadows are formed Investigate how shadows change throughout the day Investigate how you can change the size of a shadow 	<ul style="list-style-type: none"> Compare the effect of different factors on plant growth Identify and describe the functions of different parts of a flowering plant and how they are used in photosynthesis Investigate the way in which water is transported within plants Explore the part that flowers play in the life cycle of flowering plants Understand the pollination process and the ways in which seeds are dispersed Compare the effect of different factors on plant growth 	<ul style="list-style-type: none"> Explore contact and noncontact forces Compare how things move on different surfaces Explore different types of magnets Explore the properties of magnets and everyday objects that are magnetic Understand that magnetic forces can act at a distance Explore the everyday uses of magnets



Science Overview

Year 4

	Autumn		Spring		Summer	
	Working Scientifically / Enquiry					
Year 4	Animals including Humans	Sound	Electricity	Living Things & Their Habitats	Living Things & Their Habitats Conservation	States of Matter
	<ul style="list-style-type: none"> Identify the organs in the digestive system Describe the functions of the main organs in the digestive system Identify the types of human teeth and their functions Investigate the effects of different liquids on the teeth Understand food chains C Explore food webs 	<ul style="list-style-type: none"> Identify how sounds are made Explore how vibrations from sounds travel through a medium to the ear Explore sound insulation Explore volume Explore pitch Explore sounds from near and from far 	<ul style="list-style-type: none"> Explore electrical appliances and electrical safety Learn about electrical components in a series circuit Investigate electrical circuits Explore conductors and insulator Learn about electrical switches Investigate how electrical components can change within a circuit 	<ul style="list-style-type: none"> Explore different habitats Research a habitat Explore how animals can be classified Create a classification key Adaptations and classification within species Explore and classify pond plants 	<ul style="list-style-type: none"> Describe ecosystems and how they are affected by changes in the seasons Understand human impact on the environment through deforestation Explore air pollution Understand water pollution Explore methods that can be used to conserve water Understand that humans can have a positive impact on nature 	<ul style="list-style-type: none"> Compare and group the 3 states of matter Explore how particles behave in solids, liquids and gases Investigate melting points Explore freezing and boiling points Explore evaporation and condensation Understand the water cycle



Science Overview

Year 5

Year 5	Autumn		Spring		Summer	
	Working Scientifically / Enquiry					
	Properties of Materials	Changes of Materials	Earth and Space	Forces	Living things and their Habitat	Animals including humans
	<ul style="list-style-type: none"> ● Exploring properties of materials ● Explore thermal conductors and thermal insulators ● Explore the hardness of materials ● Discover materials that become soluble in water ● Investigate the solubility of materials ● Explore how mixtures could be separated by filtering, sieving, evaporating or magnets 	<ul style="list-style-type: none"> ● Use evaporation to recover the solute from a solution ● Recognise and describe reversible changes ● Observe chemical reactions and describe how we know new materials are made ● Investigate rusting reactions ● Investigate burning reactions ● Investigate chemical reactions - acids and bicarbonate of soda 	<ul style="list-style-type: none"> ● Explore the solar system and its planets ● Understand the heliocentric model of the solar system ● Explain the Earth's movement in space ● Explain the Earth's rotation and night and day ● Explain the movement of the Moon ● Design a planet using knowledge gained 	<ul style="list-style-type: none"> ● Explore gravity and the life and work of Isaac Newton ● Examine the connection between air resistance and parachutes ● Explore factors which affect an object's ability to resist water ● Investigate the effects of friction on different surfaces ● Investigate mechanisms - levers and pulleys ● Investigate mechanisms - gears 	<ul style="list-style-type: none"> ● Understand the life process of a plant ● Understand the life cycles of mammals ● Compare the life cycles of insects and amphibians ● Understand the life cycle of birds and reptiles ● Know about the life and work of Jane Goodall and David Attenborough ● Research and present the life cycle of a creature 	<ul style="list-style-type: none"> ● Identify the key stages of a mammal's life cycle ● Explore the gestation periods of mammal ● Learn about foetal development ● Investigate the hand span of different aged children ● Learn about the changes experienced during puberty ● Describe the changes humans may experience during adulthood and old age



Science Overview

Year 6

Year 6	Autumn	Spring			Summer	
	Working Scientifically / Enquiry					
	Living things and their habitats	Animals including Humans	Evolution and Inheritance	Looking after our environment	Light	Electricity
	<ul style="list-style-type: none"> Classify living organisms Understand the kingdoms of life Classify living things using the Linnaean system Identify the characteristics of different types of microorganisms Investigate asexual reproduction through spore dispersal Classify and describe a living organism 	<ul style="list-style-type: none"> Understand the function of the heart and its role in the circulatory system Identify and compare blood vessel Explore blood Learn how the body transports water and nutrients Investigate what affects your heart rate Learn about the impact of drugs and alcohol on the body 	<ul style="list-style-type: none"> Understand how offspring vary and are not identical to their parent Learn about animal adaptations Learn about plant adaptations Explore what we can learn from fossils Explore the theory of evolution Explore human evolution 	<ul style="list-style-type: none"> Learn about climate change Explore ways to reduce how much rubbish is sent to landfill Explore ways to reduce energy consumption Explore what happens when fuels are burnt Explore the outcomes of COP26 Compare data associated with the weather 	<ul style="list-style-type: none"> Explore how light travels Explore reflection Explore reflection and explain how it can be used to help us see Investigate how shadows can change Investigate how we can show why shadows have the same shape as the object that casts them Investigate how we see objects 	<ul style="list-style-type: none"> Describe the parts of an electric circuit Explore voltage and its effect on an electrical circuit Apply knowledge to identify and correct problems in a circuit Investigate what affects the output of a circuit Build a set of traffic lights Apply knowledge of conductors and insulators