

Science Curriculum Overview

Science Overview						
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Reception	All About Me	Space	People Who Help Us	Traditional Tales	The World Around Us	Under The Sea
Focus	<ul style="list-style-type: none"> - Different senses and their purposes. - Keeping healthy, making sensible food and exercise choices. - Factors that make up a healthy lifestyle. - Describe how their body changes over time. 	<ul style="list-style-type: none"> - Solar system song. - 8 planets of the solar system. 	<ul style="list-style-type: none"> - Name a range of different materials. - Describe the effect of changing seasons on the natural world around them. - Keeping healthy, making sensible food and exercise choices. 	<ul style="list-style-type: none"> - Observe and interact with natural processes, such as ice melting. 	<ul style="list-style-type: none"> - Name a range of different materials. - Explore the natural world around them. - Name some foods which grow below the ground and some above the ground. - Name parts of a plant - Recall and describe the effect of changing seasons on the natural world around them. 	<ul style="list-style-type: none"> - Observe and interact with natural processes, such as a boat floating on water. - Name different species/creatures that live under the sea. - Identify different ocean zones and talk about what could live there. - Recall and describe the effect of changing seasons on the natural world around them. - Explore different materials and demonstrate which one's float and which ones sink. - Understand, compare and describe sea creatures to those living on land.

Year 1	Animals Including Humans	Materials	Seasonal Changes	Plants		
Focus	How can we group animals? – identify and name common animals, identify carnivores, herbivores and omnivores, draw and label parts of the human body including senses.	Why do we use different materials for different things? – identify different materials, properties of common materials, sort materials.	Why does the weather change during the different seasons? – observe and describe changes across the four seasons, observe how day length varies and identify weather associated with the seasons.	How can we identify different plants and trees? – identify different plants, identify basic structure of plants, understand that plants grow, name common wild plants, name basic structure of deciduous and evergreen trees.		
Prior learning	EYFS- names of animals and their features.	EYFS- textures of materials and used materials in model making.	EYFS- characteristics and weather associated with each season.	EYFS- names of plants and features.		
Future learning	Yr2- Animals including Humans (offspring and basic needs)	Yr2- Materials (suitability of everyday materials)	Yr4- States of Matter (water cycle and how rain is formed)	Yr2- Plants (study in greater detail how plants grow from seeds and bulbs. Identify what plants need to be healthy.)		
Year 2	Animals Including Humans	Living Things and Their Habitats	Materials	Plants		
Focus	Why do we need to keep healthy? - Humans needs for survival, identify	How do we know something is alive? – explore if things	How are materials chosen in design? – identify different materials,	How do seeds and bulbs grow into healthy plants? – identify fruits,		

	that adult shave offspring which grow and change, importance of exercise and good hygiene.	are living, dead or never alive, name a variety of plants and animals in their habitats, simple food chains.	distinguish between object and materials, investigate properties of materials.	vegetables, and herbs, observe how seeds grow, identify what plants need to grow and stay healthy, life cycle of plants.		
Prior learning	Yr1- Animals including Humans (different body parts and related senses)	Yr1- Animals including Humans (grouped animals based in their features and diet)	Yr1- Materials (what materials objects are made from)	Yr1- Plants (basic structure of different plants and trees)		
Future learning	Yr3- Animals including Humans (nutrition humans and other animals)	Yr4- Living Things (environmental threats to habitats and food chains)	Yr3- Rocks (properties of different rocks)	Yr3- Plants (functions of different parts of plants, flowers in the life cycle of plants and transportation of water in plants)		
Year 3	Animals Including Humans	Light	Rocks	Forces and Magnets	Plants	
Focus	How do the systems inside our body work to make a healthy human? – the role of bones and muscles, comparing animal skeletons and types of nutrition.	What is light? – what is a light source, reflecting light, what is a shadow and why do they change.	How can we classify rocks? – comparing rocks, explain how rocks are formed, what rocks make up the earth, what is soil and how are fossils formed.	How do magnets work? – what is a force, do surface affect an object moving, magnetic materials.	How does each part of the plant fulfil its function? – what do plants need to grow, parts of plants and their functions, how water is transported, flowers and seed dispersal in the life cycle of plants.	

Prior learning	Yr2- Animals including Humans (animals and their offspring, what animals need to survive)	Yr1- Seasonal changes (dangers of looking at the sun)	Yr1- Materials (looks at properties of rock whilst looking at different materials)	Yr2- Materials (investigated how materials can bend, squash, twist and stretch)	Yr2- Plants (how plants grow from seeds and bulbs. What plants need to grow and be healthy)	
Future learning	Yr4- Animals including Humans (grouping animals based on features, nutrition and skeleton. Classification keys)	Yr6- Light (how light behaves, investigate shadows and understand how the eye works)	KS3- rock cycle and how different rocks are formed.	Yr5- Forces (gravity, friction and air resistance). Yr5- Materials (magnetic materials)	Yr5- Animals including Humans (life cycle of a plant during the life process of reproduction)	
Year 4	Electricity	States of Matter	Sound	Living Things and Their Habitats	Animals Including Humans	
Focus	What is electricity? – common electrical appliances, simple circuits, conductors, and insulators.	Can materials change state? – identify characteristics of solids, liquids and gases, use thermometers, understand changes through temperature changes, water cycle.	What is sound? – how sounds are made and travel, structure of the ear and patterns between sound and vibrations.	Which living things can be found in the local area? – life processes, sorting and grouping animals, vertebrates and invertebrates, and classification keys.	What happens to the food we eat? – digestive system parts and functions, teeth and their functions and food chains	
Prior learning		KS1- Materials (grouping materials based on properties.		Yr3- Plants (functions of different parts of plants and their role	Yr3- Animals including Humans (healthy diets and nutrition)	

		Changing shapes through bending, twisting, squashing and stretching)		of flowers in plant life cycles)		
Future learning	Yr6- Electricity (association of brightness with voltage. Use scientific symbols when drawing a simple circuit)	Yr5- Materials (how to separate materials including filtering, sieving and evaporation. Reversible and irreversible changes)	KS3- explore frequencies of sound waves, measure in hertz, reflection and absorption of sound.	Yr6- Living Things and their Habitats (reproduction in life cycles, classification of single-celled organisms)	Yr5- Animals including Humans (changes through human's life cycle)	
Year 5	Earth and Space	Forces	Materials	Living Things and their Habitats	Animals Including Humans	
Focus	What is the solar system? – planets, shapes of sun/earth/moon, movement in relation to each other.	Are there different types of forces? – gravity, friction, air resistance, water resistance and mechanisms.	How do materials change? – thermal insulation, magnetic properties, dissolving and separating, irreversible changes.	How do living things reproduce and why is this important in a life cycle? – seven life processes, mammal and plant reproduction, animals and plant life cycles.	How do we change as we grow older? – human life cycle, e.g. foetus development, teenage changes, senior changes.	
Prior learning	Yr3- Light (sun as a light source, sun's position moves through the day)	Yr3- Forces and magnets (explored how	Yr4- States of Matter (changing states when	Yr3- Plants (functions of different parts of plants and their role	Yr3- Living things and their habitats (life cycle of plants linked to the life cycle of humans)	

		magnets can pull and push)	temperature changes)	of flowers in plant life cycles)		
Future learning	KS3- gravity is different on other planets, other stars and galaxies, astronomical distances.	KS3- describing motion, balanced and unbalanced forces, equilibrium.	KS3- particular nature of matter, atoms, elements and compounds. Pure and impure substances. Chemical reactions.	KS3- structure and function of the male and female reproductive systems, menstrual cycle, reproduction in plants.	KS3- reproduction in more detail in humans and other details.	
Year 6	Light	Electricity	Living Things and Their Habitats	Evolution	Animals Including Humans	
Focus	What is light? – light travels in straight lines, explain how the eye works, explain how reflection helps us see.	What is electricity? - using scientific symbols, voltage, renewable energy.	What is classification? – organise based on broad groups, understand microorganism groups and understand why Carolus Linnaeus was important.	What is evolution? - adaptations of plants and animals, natural selection, and evolution.	How do animal’s living systems work together to maintain a healthy body? - circulatory system, exercise on heart rate, keeping healthy	
Prior learning	Yr3- Light (light is needed to see, light sources, reflection and how shadows are formed)	Yr4- Electricity (common electrical appliances, simple circuits, insulators and conductors)	Yr4- Living things and their habitats (classification keys)	Yr3- Rocks (fossil formation)	Yr4- Animals including Humans (digestive system and absorbing nutrients)	
Future learning	KS3- sight is based on ability to see red, blue and green	KS3- current and static electricity, parallel circuits,	KS3- cell structure and organisation.	KS3- inheritance, chromosome, DNA and genes.	KS3- gas exchange an recreational drugs effects on the body.	

	light, light can be refracted.	differences in resistances.				
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