

Science

EYFS – Y6


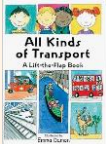


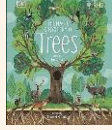

- Content covered
- Working Scientifically
- Vocabulary
- Reading To Learn

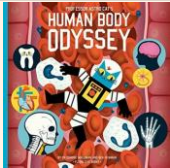

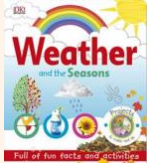
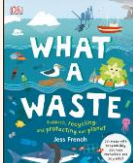

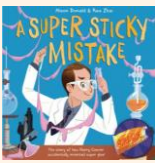


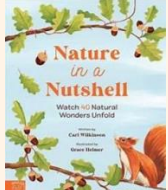
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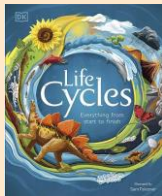

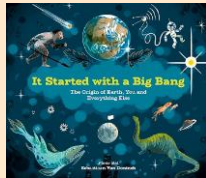
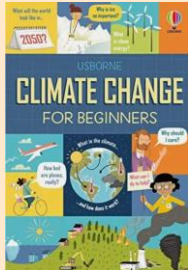
Cycle A 2023-24



CA	ELG	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
EYFS	Understanding The world	The human body: Facial features, body parts, the senses Seasons of the year; Autumn. Deciduous and evergreen trees. Observing leaves using magnifying glasses, leaves changing colour.	Forces: push, pull, twist Air transport Water transport Seasons of the year: Winter. Animal hibernation, why do some animals hibernate? How do other animals survive winter? Transport in the winter; snow ploughs, gritting roads, snow tyres. Changing state of matter; frost and ice- looking closely at ice, what happens when it warms? Why can we see our breath when it is cold?	Our planet Earth, land and sea, plants and animals, weather, gravity. The moon, the sun, the planets in our solar system, space travel, astronauts. Seasons of the year: Spring. The first signs of spring; snowdrops, cherry blossom, buds and flowers, birds nesting, bees, lighter evenings.	Seasons of the Year: Summer. Signs of summer; flowers, warmer days, light evenings, butterflies, bees, birds. Design a garden for the Queen; what could we grow? What would we include? Sketch some ideas and write about the design.	Growing and changing; how people change as they grow, how animals change as they grow. Life cycles of a butterfly and/or frog. Identify and draw the following animals and their babies including but not limited to: Sheep and Lamb Cows and Calf Horse and foal Butterfly and Caterpillar Frog and tadpole Dog and puppy Cat and kitten Plants; how they grow from seeds and bulbs. What plants need to grow. Identify parts of plants including roots, stem and leaves. Identify trees and plants growing locally on the school grounds or in local parks. Draw pictures of local plants.	Seasons of the Year: Summer. How we stay safe in the sun; sunscreen, hats, sunglasses. Safety around water. Changing state of matter; Why do our ice lollies melt?
		Substantive concept: Disciplinary concepts:	Substantive concept: Disciplinary concepts:	Substantive concept: Disciplinary concepts:	Substantive concept: Disciplinary concepts:	Substantive concept: Disciplinary concepts:	Substantive concept: Disciplinary concepts:
	Vocabulary	Head, shoulders, arms, knees, hands, feet, ankles, wrists, elbows, knuckles, fingers, fingernails, ears, eyes, nose, scientists. Bones, muscles, skin, brains, skulls, sensory, physical, impairment, deaf, blind.	Wheels, axle, turn, move.	Earth, planet, land, ocean, gravity, sun, daylight, night time, orbit, rocket, shuttle, astronaut, space suit, space boots, helmet, gravity, oxygen. Rocky planet, gas giant, ice giant.	Names of local flowers.	Spring, summer, autumn, winter, sun, snow, wind, rain, warmth Deciduous, evergreen, spring, summer, autumn, winter, leaves Change, grow, caterpillar, cocoon, transform, butterfly, (metamorphosis)	Sun, suncream, protection, shade, beach, holiday. Slid, liquid, melt, soften, hard, freeze.
	Reading To Learn					 	

CA	Subject	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
KS1	Science	<p>The Human Body (mixed age plan):</p> <ul style="list-style-type: none"> To identify basic parts of the human body (Yr1) and to understand what animals, including humans need to survive (Yr2). To know that we use our eyes to see. To know that sounds travel through our ears to send messages to our brain. To know that our senses help us when we eat To know that humans have skin, a skeleton and muscles which help us to move To understand that scientists have found ways to keep us healthy. To understand that some people have problems with their senses, such as blindness or deafness. 	<p>Animals and their Needs (Mixed age plan):</p> <ul style="list-style-type: none"> To name and describe common animals. Scientists group animals according to their features. To understand that we can group animals according to what they eat. To describe the needs of a pet To know that a habitat is the name given to a place where plants or animals live. 	<p>Seasons and Weather:</p> <ul style="list-style-type: none"> To name and describe the four seasons To know that tools are used to gather information about the weather. To present data using a graph. To know there are different types of cloud. To understand that weather forecasts help people to prepare for different kinds of weather To understand that certain types of weather can be dangerous. 	<p>Taking Care of the Earth:</p> <ul style="list-style-type: none"> To describe different ways that we damage the Earth. To know that there are natural and manufactured resources that people on Earth use. To identify logging as a way of harvesting the Earth's natural resources. To know that people create pollution which can harm the environment. To know that recycling means turning used things into something new. 	<p>Plants (mixed age plan):</p> <ul style="list-style-type: none"> To know what plants need in order to grow. To name and describe the parts of a plant. To understand that plants spread their seeds to make new plants. To understand that some trees are evergreen, and some are deciduous. To recognise which parts of plants we eat. 	<p>Materials and Magnets:</p> <ul style="list-style-type: none"> To recognise everyday materials To identify the properties of materials. To explain why materials are chosen for specific tasks. To understand that materials can be sorted according to whether they are or are not attracted to magnets To investigate which material would be most suitable for (insert purpose).
		<p>Working scientifically NC:</p> <ul style="list-style-type: none"> observing closely, using simple equipment performing simple tests identifying and classifying ask people questions and use simple secondary sources to find answers 	<p>Working scientifically NC:</p> <ul style="list-style-type: none"> identifying and classifying using their observations and ideas to suggest answers to questions use simple features to compare objects, materials and living things and, with help, decide how to sort and group them, observe changes over time, and, with guidance, they should begin to notice patterns and relationships record and communicate their findings in a range of ways and begin to use simple scientific language (with help) 	<p>Working scientifically NC:</p> <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions use simple measurements and equipment (for example, hand lenses, egg timers) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out record and communicate their findings in a range of ways and begin to use simple scientific language (with help) 	<p>Working scientifically NC:</p> <ul style="list-style-type: none"> identifying and classifying ask people questions and use simple secondary sources to find answers record and communicate their findings in a range of ways and begin to use simple scientific language (with help) 	<p>Working scientifically NC:</p> <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions use simple features to compare objects, materials and living things and, with help, decide how to sort and group them, observe changes over time, and, with guidance, they should begin to notice patterns and relationships use simple measurements and equipment (for example, hand lenses, egg timers) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out record and communicate their findings in a range of ways and begin to use simple scientific language (with help) 	<p>Working scientifically:</p> <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways identifying and classifying gathering and recording data to help in answering questions
	Vocabulary	Human; senses; eyes; ears; mouth; nose; skin; sensory impairment; off-spring	Animal; mammal ; amphibian ; reptile; bird; fish; pet; omnivore; carnivore; herbivore	Spring; summer; autumn; winter; rain gauge; thermometer; weather vane; data; clouds; flood; hurricane; meteorologist	natural resources; manufactured resources; renewable resource; non-renewable resource; pollution; environment; conserve	Plant; root; stem; leaves; seed; deciduous; evergreen	Material; properties; transparent; opaque; magnet; attract; repel; purpose
	Reading to Learn						


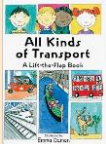


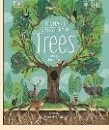

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LKS2	Science	<p>The Human Body (mixed age):</p> <ul style="list-style-type: none"> To know that we can control our voluntary muscles, but we do not control our involuntary muscles. To know our bones help us to move and protect some parts of our bodies. To know that the brain is the centre of the nervous system. To understand animals get nutrition from what they eat (Y3) and describe the functions of parts of the digestive system in humans (Y4) To understand how the brain and mouth start the digestive process 	<p>Cycles in Nature:</p> <ul style="list-style-type: none"> To know that our natural environment changes as the seasons change To understand how plants can change through the seasons To know that plants grow, live and reproduce To know that some animals migrate To recognise the different stages in the life cycle of a frog 	<p>Light:</p> <ul style="list-style-type: none"> To understand that we need light in order to see things. To know that transparent materials let light through and opaque materials block light from passing through. Mirrors can reflect light in different ways, depending on their shape. Shadows change in size and shape throughout the day. 	<p>Plants (mixed age)</p> <ul style="list-style-type: none"> A botanist is a scientist who studies plants and flowering plants all have roots, a stem or trunk, leaves and flowers. Water moves from the roots of a plant, upwards via the stem. To know that pollination is needed for flowering plants to reproduce. To understand that plants spread their seeds in many different ways to reproduce. To know that plants can be classified into two main groups: flowering and non-flowering plants 	<p>Rocks:</p> <ul style="list-style-type: none"> To know there are many different types of rocks. To know that geologists sort rocks into three main groups To understand that some rocks allow water to pass through, but others do not To know that some rocks contain fossils which can tell us about life millions of years ago. To recognise that soils are made from rocks and organic matter 	<p>Forces and Magnets Forces:</p> <ul style="list-style-type: none"> A force is a push or a pull. Friction is the force between two surfaces. Magnets have an invisible push or pull force. To know that magnets have poles and a magnetic field. To know that magnetic forces are not all the same strength.
			<p>Asking relevant questions and using different types of scientific enquiries to answer them; recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables; reporting on findings from enquiries with displays or presentations of results and conclusions; using straightforward scientific evidence to answer questions or to support their findings; identifying differences, similarities or changes related to simple scientific ideas and processes; setting up simple practical enquiries, comparative and fair tests • making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</p>	<p>asking relevant questions and using different types of scientific enquiries to answer them • setting up simple practical enquiries, comparative and fair tests • making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • identifying differences, similarities or changes related to simple scientific ideas and processes • using straightforward scientific evidence to answer questions or to support their findings</p>	<p>Working Scientifically criteria met in this unit: • recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • identifying differences, similarities or changes related to simple scientific ideas and processes • asking relevant questions and using different types of scientific enquiries to answer them • using straightforward scientific evidence to answer questions or to support their findings • reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p>	<p>Asking relevant questions and using different types of scientific enquiries to answer them • Setting up simple practical enquiries, comparative and fair tests • Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • Identifying differences, similarities or changes related to simple scientific ideas and processes • Using straightforward scientific evidence to answer questions or to support their findings.</p>	<p>asking relevant questions and using different types of scientific enquiries to answer them • setting up simple practical enquiries, comparative and fair tests • making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • identifying differences, similarities or changes related to simple scientific ideas and processes • using straightforward scientific evidence to answer questions or to support their findings.</p>
	Vocabulary	<p>Voluntary; involuntary; joint; spinal cord; reflex; oesophagus</p>	<p>Cycle; seasonal cycle; deciduous; evergreen; dormant; nutrients; decay; metamorphosis; frogspawn; tadpole; pollen; seed</p>	<p>Light; dark; light source; transparent; opaque; reflect; shadow</p>	<p>Botanist; function; pollination; pollen; absorb; transport; germinate; disperse; reproduce; seeds; seedling</p>	<p>Geology; permeable; impermeable; fossils; soil; sediment</p>	<p>Force; contact force; magnet; magnetism; magnetic field; magnetic plates; lodestone</p>
Reading To Learn							



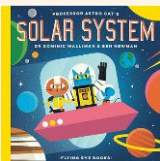


CA	Subject	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
UKS2	Science	The Human Body (Y5): <ul style="list-style-type: none"> To recognise the first stages of human growth: gestation, birth and infancy. To know that the human body changes as it goes through puberty To identify physical and mental changes to the human body that happen from adulthood to old age Humans and animals have growth stages of different lengths 	Materials Properties (Y5): <ul style="list-style-type: none"> To understand that materials can be grouped according to their properties and to know the definitions of some properties To know that thermal conductivity means heat can be transferred through a material To understand that a solution is a mixture of a solid in a liquid where the solid has broken into parts too small to see To know there are methods for separating mixtures including solutions To understand that all changes are either reversible or irreversible 	Living Things (Y5): <ul style="list-style-type: none"> To recognise how plants and animals in our local area change throughout the year Mammals and amphibians have different life cycles Insects and birds have different life cycles. To know that flowering plants need pollen to reproduce. To know that Jane Goodall and David Attenborough have dedicated their lives to studying the natural world and communicating their findings. 	Forces (Y5): <ul style="list-style-type: none"> A force is either a push or a pull. Friction occurs when two objects move against each other. Objects with a large surface area will have greater air resistance than other objects with a small surface area. How does surface area affect speed of fall in air (or water)? Simple machines help us to increase the force we apply to an object to help us move it. 	Astronomy (Y5): <ul style="list-style-type: none"> To know that astronomers believe the universe began with the Big Bang, and that it is still expanding today To understand that gravity is a force that holds objects together To know the planets of our solar system To understand the Moon's phases To understand that the solar system is just a small part of our universe 	Meteorology (Y5): <ul style="list-style-type: none"> To know the atmosphere protects Earth and enables life To know that human actions can impact the Earth's atmosphere To know that the UK experiences six air masses affecting the weather To know a weather front is a boundary where warm and cold air meet To know thunder and lightning is caused by electrical charge moving through the air
	Vocabulary	Gestation period; Adolescence; Puberty; Hormone ; Growth stage	Physical property; Mixture; Dissolved; Solvent; Solute; Saturated; Reversible change; Evaporation; Filtering	Life cycle ; Reproduction; Interconnection; Mammal ; Amphibian ; Metamorphosis; Hibernate; Incubate; Larva (larvae)	Force; Gravity; Friction; Air resistance; Water resistance; Buoyancy; Upthrust; Streamline	Astronomy; Astronomer; Universe; Galaxy; Star; Solar system; Orbit; Light year; Big bang theory; Gravity; Satellite; The milky way	Meteorology; Meteorologist; Atmosphere; The Ozone Layer; Weather ; Climate; Maritime climate; Air mass; Front; Anemometer; Lightening; Thunder
	Reading To Learn						

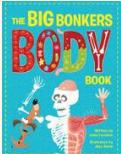
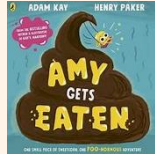
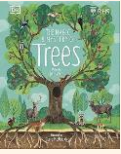

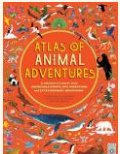
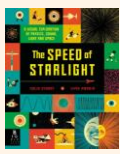

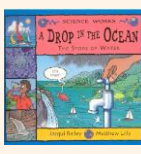
Science

Cycle B 2024-25



CB	ELG	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
EYFS	Understanding The world	The human body: Facial features, body parts, the senses Seasons of the year; Autumn. Deciduous and evergreen trees. Observing leaves using magnifying glasses, leaves changing colour.	Forces: push, pull, twist Air transport Water transport Seasons of the year: Winter. Animal hibernation, why do some animals hibernate? How do other animals survive winter? Transport in the winter; snow ploughs, gritting roads, snow tyres. Changing state of matter; frost and ice- looking closely at ice, what happens when it warms? Why can we see our breath when it is cold?	Our planet Earth, land and sea, plants and animals, weather, gravity. The moon, the sun, the planets in our solar system, space travel, astronauts. Seasons of the year: Spring. The first signs of spring; snowdrops, cherry blossom, buds and flowers, birds nesting, bees, lighter evenings.	Seasons of the Year: Summer. Signs of summer; flowers, warmer days, light evenings, butterflies, bees, birds. Design a garden for the Queen; what could we grow? What would we include? Sketch some ideas and write about the design.	Growing and changing; how people change as they grow, how animals change as they grow. Life cycles of a butterfly and/or frog. Identify and draw the following animals and their babies including but not limited to: Sheep and Lamb Cows and Calf Horse and foal Butterfly and Caterpillar Frog and tadpole Dog and puppy Cat and kitten Plants; how they grow from seeds and bulbs. What plants need to grow. Identify parts of plants including roots, stem and leaves. Identify trees and plants growing locally on the school grounds or in local parks. Draw pictures of local plants.	Seasons of the Year: Summer. How we stay safe in the sun; sunscreen, hats, sunglasses. Safety around water. Changing state of matter; Why do our ice lollies melt?
	Vocabulary	Head, shoulders, arms, knees, hands, feet, ankles, wrists, elbows, knuckles, fingers, fingernails, ears, eyes, nose, scientists. Bones, muscles, skin, brains, skulls, sensory, physical, impairment, deaf, blind.	Wheels, axle, turn, move.	Earth, planet, land, ocean, gravity, sun, daylight, night time, orbit, rocket, shuttle, astronaut, space suit, space boots, helmet, gravity, oxygen. Rocky planet, gas giant, ice giant.	Names of local flowers.	Spring, summer, autumn, winter, sun, snow, wind, rain, warmth Deciduous, evergreen, spring, summer, autumn, winter, leaves Change, grow, caterpillar, cocoon, transform, butterfly, (metamorphosis)	Sun, suncream, protection, shade, beach, holiday. Slid, liquid, melt, soften, hard, freeze.
	Reading To Learn					 	

CB	Subject	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
KS1	Science	<p>The Human Body (mixed age plan):</p> <ul style="list-style-type: none"> To identify basic parts of the human body (Yr1) and to understand what animals, including humans need to survive (Yr2). To know that we use our eyes to see. To know that sounds travel through our ears to send messages to our brain. To know that our senses help us when we eat To know that humans have skin, a skeleton and muscles which help us to move To understand that scientists have found ways to keep us healthy. To understand that some people have problems with their senses, such as blindness or deafness. 	<p>Animals and their Needs (mixed age plan):</p> <ul style="list-style-type: none"> To name and describe common animals. Scientists group animals according to their features. To understand that we can group animals according to what they eat. To describe the needs of a pet To know that a habitat is the name given to a place where plants or animals live. 	<p>Astronomy:</p> <ul style="list-style-type: none"> To know there are eight planets in our solar system. To know that Earth travels around the Sun. To know that the Moon orbits the Earth. To know that groups of stars are called constellations. Scientists, including astronomers, learn from each other to make new discoveries about space 	<p>Materials and Matter:</p> <ul style="list-style-type: none"> To know that materials have specific uses based on their properties. To know that inventors think carefully about materials and their properties. To know that scientists use microscopes to see very small things around us. To know that the shapes of solid objects made from some materials can be changed To understand that water can be a solid and can also be a liquid 	<p>Plants (mixed age plan):</p> <ul style="list-style-type: none"> To know what plants need in order to grow. To name and describe the parts of a plant. To understand that plants spread their seeds to make new plants. To understand that some trees are evergreen, and some are deciduous. To recognise which parts of plants we eat. 	<p>Electricity:</p> <ul style="list-style-type: none"> To identify things that use electricity. To know that electricity is useful, but it can also be dangerous. To construct an electrical circuit. To identify materials that conduct electricity.
		<p>Working Scientifically criteria met in this unit:</p> <ul style="list-style-type: none"> Identifying and Classifying Using their observations and ideas to suggest answers to questions Observing closely Gathering data to help in answering questions Asking simple questions 	<p>Working Scientifically criteria met in this unit:</p> <ul style="list-style-type: none"> Identifying and Classifying Using their observations and ideas to suggest answers to questions recording data to help in answering questions Asking simple questions and recognizing that they can be answered in different ways 	<p>Working Scientifically criteria met in this unit:</p> <ul style="list-style-type: none"> Asking simple questions and recognising that they can be answered in different ways Identifying and classifying Using their observations and ideas to suggest answers to questions 	<p>Working Scientifically criteria met in this unit:</p> <ul style="list-style-type: none"> Asking simple questions and recognising that they can be answered in different ways Observing closely, using simple equipment Performing simple tests Identifying and classifying Using their observations and ideas to suggest answers to questions Gathering and recording data to help in answering questions 	<p>Working Scientifically criteria met in this unit:</p> <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions 	<p>Working Scientifically criteria met in this unit:</p> <ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions
	Vocabulary	Offspring; survive; vision; reflection; digestion; energy; process; organ; skeleton; muscle; germs; hygiene; nutrition; bacteria; vaccine	Birds; fish; amphibians ; reptiles; mammals ; invertebrates; features; incisors; canine; molars; carnivore; herbivore; omnivore; domestic; habitat; diverse; microhabitat.	Solar System; planets; orbit; rotate; moon; reflect; waxing; waning; constellation.	Matter; solid; liquid; atoms; materials; properties; transparent; opaque.	Germinate; photosynthesis; roots; absorb; stem; leaves; flower; reproduce ; disperse; survive; evergreen; deciduous; poisonous; nutrients; edible	Electricity; electrical current; electric shock; circuit; battery; light bulb; switch; wire; conductor; insulator.
	Reading to Learn						

CB	SUBJECT	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
LKS2	Science	<p>The Human Body (mixed age):</p> <ul style="list-style-type: none"> To know that we can control our voluntary muscles, but we do not control our involuntary muscles. To know our bones help us to move and protect some parts of our bodies. To know that the brain is the centre of the nervous system. To understand animals get nutrition from what they eat (Y3) and describe the functions of parts of the digestive system in humans (Y4) To understand how the brain and mouth start the digestive process 	<p>Plants (mixed age)</p> <ul style="list-style-type: none"> A botanist is a scientist who studies plants and flowering plants all have roots, a stem or trunk, leaves and flowers. Water moves from the roots of a plant, upwards via the stem. To know that pollination is needed for flowering plants to reproduce. To understand that plants spread their seeds in many different ways to reproduce. To know that plants can be classified into two main groups: flowering and non-flowering plants 	<p>Classification Plants & Animals</p> <ul style="list-style-type: none"> To understand that we can classify animals and plants. To know that fish and amphibians are vertebrates. To know some of the key features of reptiles, birds and mammals. To understand and describe key features of insects, arachnids and molluscs. To know that plants can be classified into two main groups: flowering and non-flowering 	<p>Sound:</p> <ul style="list-style-type: none"> To understand how sound is produced and how it travels To know sound travels through the air. To know the difference between pitch and volume. To understand how the human voice makes different sounds. Vibrations in sound waves travel through the different parts of the ear. 	<p>States of Matter and the Water Cycle:</p> <ul style="list-style-type: none"> To know and compare three main states of matter: solid, liquid and gas To know that evaporation occurs when a liquid turns into gas. To know that condensation occurs when gas turns into liquid (water vapour into liquid water) To know that precipitation returns water to the surface of the Earth. To know how water changes state within the water cycle. 	<p>Electricity:</p> <ul style="list-style-type: none"> To know that electricity is useful, but it can also be very dangerous. To construct an electrical circuit. Switches open and close a circuit. To know that the lightbulb was a very important invention. To identify materials that conduct electricity
			<p>Working Scientifically criteria met in this unit:</p> <ul style="list-style-type: none"> recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables identifying differences, similarities or changes related to simple scientific ideas and processes asking relevant questions and using different types of scientific enquiries to answer them using straightforward scientific evidence to answer questions or to support their findings reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions 	<p>Working Scientifically criteria met in this unit:</p> <ul style="list-style-type: none"> recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables identifying differences, similarities or changes related to simple scientific ideas and processes asking relevant questions and using different types of scientific enquiries to answer them using straightforward scientific evidence to answer questions or to support their findings reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions 	<p>Working Scientifically criteria met in this unit:</p> <ul style="list-style-type: none"> asking relevant questions and using different types of scientific enquiries to answer them setting up simple practical enquiries, comparative and fair tests making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers gathering, recording, classifying and presenting data in a variety of ways to help in answering questions recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions identifying differences, similarities or changes related to simple scientific ideas and processes using straightforward scientific evidence to answer questions or to support their findings 	<p>Working Scientifically criteria met in this unit:</p> <ul style="list-style-type: none"> Asking relevant questions and using different types of scientific enquiries to answer them Setting up simple practical enquiries, comparative and fair tests Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions Identifying differences, similarities or changes related to simple scientific ideas and processes Using straightforward scientific evidence to answer questions or to support their findings 	<p>Working Scientifically criteria met in this unit:</p> <ul style="list-style-type: none"> Asking relevant questions and using different types of scientific enquiries to answer them Setting up simple practical enquiries, comparative and fair tests Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions Identifying differences, similarities or changes related to simple scientific ideas and processes Using straightforward scientific evidence to answer questions or to support their findings
	Vocabulary	Voluntary; involuntary; contract; endo/exoskeleton; ligaments; joint; nerves; nutrition; vitamins; minerals; digest; salivary glands; taste buds.	Botanist; function; pollination; pollen; absorb; transport ; germinate; disperse; reproduce ; seeds; seedling	Classification ; animal; plant; vertebrate; invertebrate.	Vibration; sound waves; pitch; volume; larynx; ear drum; break the sound barrier; supersonic.	Cycle ; solid; liquid; gas; water vapour; evaporation; condensation; precipitation.	Electricity; circuit; electrical current; battery; light bulb; filament; switch; wire; conductor; insulator.
Reading To Learn	 		 	 			

CB	Subject	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
UKS2	Science	<p>The Human Body (Y6): To understand that the heart pumps blood around the body To understand that blood vessels transport blood around the body To understand how the heart rate can speed up or slow down, depending on what is happening to the body. There are many things that can be varied and changed in an experiment, we call the things we can change variables. To understand that blood is made up of different components.</p>	<p>Classification of living things:</p> <ul style="list-style-type: none"> To know there are five kingdoms of organisms To know that plant and animal cells are different To know that taxonomy is used to show how organisms are related to each other To know that vertebrates are classified into five groups: fish, amphibians, reptiles, birds and mammals. To understand that scientists divide invertebrates into groups including insects, arachnids and molluscs 	<p>Electricity:</p> <ul style="list-style-type: none"> Electricity flows in a circuit. The brightness of a lamp or the volume of a buzzer depends on the number and voltage of cells used in a circuit. Switches control the flow of electricity in a circuit. To know that circuits can be used to make electrical toys 	<p>Light:</p> <ul style="list-style-type: none"> To know that light is a source of illumination that allows us to see. To know that light enters our eyes, enabling us to see To test the hypothesis that shadows are always the same shape as the object that made them. To understand what light is made of and how a prism works. A periscope uses mirrors to reflect an image of something out of sight 	<p>Reproduction:</p> <ul style="list-style-type: none"> To know that asexual reproduction does not require male and female cells. To understand sexual reproduction in flowering plants. To know many plants clothe their seeds with fruit. To understand sexual reproduction in animals. To know that different animals have different growth stages. 	<p>Evolution:</p> <ul style="list-style-type: none"> To know fossils are physical evidence of life from long ago To know offspring are usually similar, but not identical, to their parents To know living things can adapt to suit their environment To know who Charles Darwin was and what natural selection is To know who Alfred Wallace was and understand his contribution to the theory of evolution
		<p>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • Using test results to make predictions to set up further comparative and fair tests • Identifying scientific evidence that has been used to support or refute ideas or arguments • Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p>	<p>Working Scientifically criteria met in this unit: • Identifying scientific evidence that has been used to support or refute ideas or arguments • Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations • Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p>	<p>Working Scientifically criteria met in this unit: • planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • using test results to make predictions to set up further comparative and fair tests • reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations • identifying scientific evidence that has been used to support or refute ideas or arguments</p>	<p>Working Scientifically criteria met in this unit: • planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • using test results to make predictions to set up further comparative and fair tests • recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations • identifying scientific evidence that has been used to support or refute ideas or arguments</p>	<p>Working Scientifically criteria met in this unit: • Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations • Identifying scientific evidence that has been used to support or refute ideas or arguments</p>	<p>Working Scientifically criteria met in this unit: • reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations • Identifying scientific evidence that has been used to support or refute ideas or arguments</p>
	Vocabulary	<p>Circulatory system; transport; atria; ventricles; valves; aorta; arteries; veins; capillaries; pulse rate; .</p>	<p>Classification; organism; animal; plant; taxonomy.</p>	<p>Electricity; electrical current; electric shock; circuit; battery; light bulb; switch; wire; conductor; insulator.</p>	<p>Light; speed of light; mirror; shade; reflection; prism.</p>	<p>Reproduction; asexual reproduction; sexual reproduction; germinate; pollination; fertilization; foetus; gestation.</p>	<p>Fossil; palaeontologist; adaptatiojn; variation; evolution; inheritance; natural selection; species; extinct; Wallace Line; theory.</p>
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