
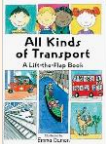


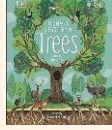



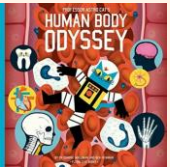

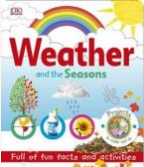
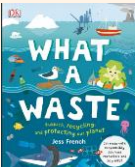
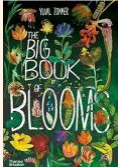
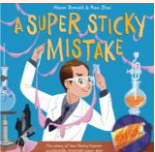
# Science

EYFS – Y6

- Content covered
- Substantive knowledge
- Disciplinary knowledge
- Vocabulary
- Reading To Learn



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	<b>Science</b>	<b>The Human Body</b> Extend Yr1 Senses, sight focus, hearing focus, sensory impairment Helen Keller.	<b>Animals and their Needs</b> Name common animals, grouping, animal diet, needs of animals.	<b>Seasons and Weather</b> Seasonal and daily weather changes, meteorologists & forecasting, clouds,	<b>Taking Care of the Earth</b> Pollution, natural and manufactured resources, renewable and non-renewable resources, logging, reuse & recycle	<b>Plants Y1</b> Conditions for growth, parts of a plant, seed production, deciduous and evergreen trees, plants we eat (fruit & vegetables)	<b>Materials and Magnets</b> Everyday materials, properties and uses, introduction to property of magnetism; magnetism a force we cannot see.
		Working scientifically NC: <ul style="list-style-type: none"> <li>observing closely, using simple equipment</li> <li>performing simple tests</li> <li>identifying and classifying</li> <li>ask people questions and use simple secondary sources to find answers</li> </ul>	Working scientifically NC: <ul style="list-style-type: none"> <li>identifying and classifying</li> <li>using their observations and ideas to suggest answers to questions</li> <li>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</li> <li>record and communicate their findings in a range of ways and begin to use simple scientific language (with help)</li> </ul>	Working scientifically NC: <ul style="list-style-type: none"> <li>asking simple questions and recognising that they can be answered in different ways</li> <li>observing closely, using simple equipment</li> <li>using their observations and ideas to suggest answers to questions</li> <li>gathering and recording data to help in answering questions</li> <li>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</li> <li>record and communicate their findings in a range of ways and begin to use simple scientific language (with help)</li> </ul>	Working scientifically NC: <ul style="list-style-type: none"> <li>identifying and classifying</li> <li>ask people questions and use simple secondary sources to find answers</li> <li>record and communicate their findings in a range of ways and begin to use simple scientific language (with help)</li> </ul>	Working scientifically NC: <ul style="list-style-type: none"> <li>asking simple questions and recognising that they can be answered in different ways</li> <li>observing closely, using simple equipment</li> <li>performing simple tests</li> <li>using their observations and ideas to suggest answers to questions</li> <li>gathering and recording data to help in answering questions</li> <li>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</li> <li>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</li> <li>record and communicate their findings in a range of ways and begin to use simple scientific language (with help)</li> </ul>	Working scientifically: <ul style="list-style-type: none"> <li>asking simple questions and recognising that they can be answered in different ways</li> <li>identifying and classifying</li> <li>gathering and recording data to help in answering questions</li> </ul>
	<b>Vocabulary</b>	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
	<b>Reading to Learn</b>						

LKS2	Science	<b>The digestive system:</b> teeth and senses, a healthy diet, nutrition, vitamins and minerals, skeletons and muscles for support, protection and movement.	<b>Cycles in Nature:</b> Seasonal cycles and plants, animal migration. Life cycles of a plant and a frog.	<b>Light:</b> How light travels shadows, transparent and opaque objects, reflection, mirrors: plane, concave, convex, how shadows change throughout the day.	<b>Plants Functions of plants:</b> roots, stem/trunk, leaves and flowers, Life and growth, variety of plants, water transportation, seed formation and dispersal.	<b>Rocks:</b> Sorting rocks, how rocks are formed, hardness and permeability, fossils, soil.	<b>Forces and Magnets Forces:</b> friction, magnets, magnetic poles, magnetic fields, law of magnetic attraction, compasses.
		Asking relevant questions; recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables; scientific evidence to answer questions; Identifying differences, similarities or changes related to simple scientific ideas and processes; reporting on findings from enquiries with displays or presentations of results and conclusions; gathering, recording, classifying and presenting data in a variety of ways to help in answering questions	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	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	• 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 • identifying differences, similarities or changes related to simple scientific ideas and processes • using straightforward scientific evidence to answer questions or to support their findings.	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	Vocabulary	Voluntary; involuntary; joint; spinal cord; reflex; oesophagus	Cycle; seasonal cycle; deciduous; evergreen; dormant; nutrients; decay; metamorphosis; frogspawn; tadpole; pollen; seed	Light; dark; light source; transparent; opaque; reflect; shadow		Geology; permeable; impermeable; fossils; soil; sediment	Force; contact force; magnet; magnetism; magnetic field; magnetic plates; lodestone
Reading To Learn			 				

CA	Subject	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
UKS2	Science	<b>The Human Body (Y5)</b> Human growth stages, adolescence and puberty, The human reproductive system, The endocrine system.	<b>Materials Properties (Y5)</b> solubility, conductivity, flexibility, fair testing, solubility, separation of mixtures, reversible changes dissolving, mixing, change of state.	<b>Living Things (Y5)</b> Life cycles of a mammal, an amphibian, an insect and a bird, life process of reproduction in some plants and animals, Photosynthesis, vascular and non-vascular plants.	<b>Forces (Y5)</b> Gravity, friction, air resistance, water resistance, pulleys, gears and levers.	<b>Astronomy (Y5)</b> The Big Bang theory, gravity, the Universe, our Solar System, the moon and our galactic neighbourhood.	<b>Meteorology (Y5)</b> Weather and climate, the atmosphere, the Ozone layer, air movement and wind direction, cold and warm fronts, thunder and lightning.
	Vocabulary	Gestation period; Adolescence; Puberty; <b>Hormone</b> ; 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	