

WHOLE SCHOOL LONG TERM SUBJECT OVERVIEW

EYFS

Programme for Study	Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EI values	Be respectful	Be understanding	Be compassionate	Be responsible	Be patient	Be positive
EYFS Theme	All About Us (Diversity)	Celebrations and Festivals (Values and Perception)	Friendship and Fairness (Social Justice)	Caring for our Environment (Sustainable development)	People who Help Us (Interdependence)	Changes (Aspirations)
Ongoing Nursery	<ul style="list-style-type: none"> • Use all their senses in hands-on exploration of natural materials.(Chemistry) • Talk about what they see, using a wide vocabulary. (Biology and Chemistry) • Explore how things work(Physics) • Begin to understand the need to respect and care for the natural environment and all living things (Biology) 					
Termly Objectives Breakdown Nursery	Explore how things work.(Physics) Electricity <u>Knowledge</u> Know that batteries provide energy <u>Skills</u> Can talk about what electrical devices do. Can switch battery-powered devices on and off. Light <u>Knowledge</u> Know that light can go through some objects		Explore and talk about different forces they can feel. (Physics) Magnets <u>Knowledge</u> Begin to understand that 'push' means move away and 'pull' means move towards. <u>Skills</u> Can play with the magnets talking about how they push away or pull towards each other. Can explore how magnets attract some objects		Talk about what they see, using a wide vocabulary.(Biology) Understand the key features of the life cycle of a plant and an animal. (Biology) Animals Including Humans <u>Knowledge</u> Know some names of common animals <u>Skills</u> <i>Animals</i> With support can name and describe some common animals	

	<p><u>Skills</u> Can talk about what they see when they shine light onto or through different objects or materials. Can spot their own reflection in objects.</p> <p>Sound <u>Knowledge</u> Know that different objects can make a sound <u>Skills</u> Can make sounds using a range of objects.</p> <p>Talk about what they see, using a wide vocabulary. (Chemistry) Use all their senses in hands-on exploration of natural materials.(Chemistry) Materials <u>Knowledge</u> Understand that different things feel, smell, look, sound and taste different. <u>Skills</u> Can talk about objects using their senses to describe them. With support, sort objects using their senses Can talk about what they see when using a magnifying glass or an app on a tablet Can use all appropriate senses to explore the parts of plants on a walk, including for example the leaves, stems/trunks, flowers, seeds, berries and fruit. Explore collections of natural materials and talk about them (e.g different colours leaves, size and shape of conker)</p> <p>Talk about what they see, using a wide vocabulary. (Chemistry) Talk about the differences between materials and changes they notice. (Chemistry) Materials <u>Knowledge</u> Begin to understand that some materials can be changed by heating them, cooling them down or by mixing them with other materials. <u>Skills</u> Can talk about ingredients for recipes. Can talk about how materials change when cooked. Can talk about how mixtures change when ingredients</p>	<p>Forces <u>Knowledge</u> Begin to understand that some objects float and some sink <u>Skills</u> Can drop objects into water and observe what happens.</p> <p>Explore how things work (Physics) Electricity <u>Knowledge</u> Recap from Autumn</p> <p>Forces <u>Knowledge</u> Begin to understand that mechanical toys will perform actions <u>Skills</u> Explore and investigate mechanical or electrical toys (turning dials, pushing buttons, turning switches on/off) Describe what they are doing (moving, making a sound, making a light) Suggest ways to make items work if they stop working. (battery and/or manual) (toys such as bee bots, shopping tills, torches, remote control cars, recording devices, ipads, hand held fans etc.)</p> <p>Talk about what they see, using a wide vocabulary.(Biology) Plant seeds and care for growing plants. (Biology) Plants <u>Knowledge</u> Begin to understand how to look after plants <u>Skills</u> With support can talk about simple noticeable differences between seeds and bulbs. Can talk about how they planted and cared for seeds and bulbs. Children show care and encourage others to care for things they encounter in the natural environment.</p> <p>Explore collections of materials with similar and/or different properties. (Chemistry) Materials <u>Knowledge</u></p>	<p>Can describe how animals have changed over time (caterpillars to butterflies). Can talk about how to care for animals (caterpillars)- Farm Visit. Can match animals to their young and name them. <i>Humans</i> Can talk about how they have changed since they were babies. Can describe humans at different ages/life stages Can talk about how to care for a baby</p> <p>Plants <u>Knowledge</u> Begin to understand that a plant starts with a seed or a bulb <u>Skills</u> Can talk about plants as they grow. Can explain that a seed or bulb grew into a plant and then died. Can use all their appropriate senses to explore the parts of plants, including the leaves, stems/trunks, flowers, seeds, berries and fruit, as they grow. Can talk about how fruits and vegetables decay and flowers die. Children do not damage the living things they encounter in the natural environment. Can show care and encourage others to care for things they encounter in the natural environment.</p>
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	are added.	<p>Begin to understand that things have similar or different characteristics</p> <p><u>Skills</u> With support children identify items that are the same or similar. Can choose from a range of materials when making models. Can join materials together to make something. With support children can name the material they have used. With encouragement and support children can talk about why they have chosen a particular material.</p>	
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Ongoing Reception	<ul style="list-style-type: none"> • Explore the natural world around them. (Biology and Chemistry) • Understand the effect of changing seasons on the natural world around them. (Biology) • Describe what they see, hear and feel whilst outside (Biology and Chemistry) 		
Termly Objectives Breakdown Reception	<p>Describe what they see, hear and feel whilst outside (Biology)</p> <p>Explore the natural world around them. (Biology)</p> <p>Plants</p> <p><u>Knowledge</u> Begin to recognise plants' parts</p> <p><u>Skills</u> Ensure children are careful when exploring the plants and do not damage them in any way. Encourage children to talk about the plants they find.</p> <p>Explore the natural world around them (Chemistry)</p> <p>Describe what they see, hear and feel whilst outside (Chemistry)</p> <p><u>Knowledge</u> Know that different things feel, smell, look, sound and taste different</p> <p><u>Skills</u> Children can talk about the materials they explore, using their senses.</p> <p>Describe what they see, hear and feel whilst outside (Physics)</p> <p>Light</p> <p><u>Knowledge</u> Begin to understand that light is needed to have a</p>	<p>Describe what they see, hear and feel whilst outside (Chemistry)</p> <p>Materials</p> <p><u>Knowledge</u> Understand that some materials can be changed by heating them Understand that things have similar or different characteristics</p> <p><u>Skills</u> Investigate and talk about the changes of states (melting, freezing) Children can choose from a range of materials, including natural materials, when making models and can talk about their choices. Encourage children to reuse materials and talk about what can be recycled to care for the natural world.</p> <p>Describe what they see, hear and feel whilst outside (Physics)</p> <p>Forces</p> <p><u>Knowledge</u> Observe that objects will react differently when interacting with water and wind</p> <p><u>Skills</u> Children observe and begin to talk about some</p>	<p>Describe what they see, hear and feel whilst outside (Biology)</p> <p>Living Things and their Habitats</p> <p><u>Knowledge</u> Know the name of some minibeasts</p> <p><u>Skills</u> Encourage children to talk about the minibeasts they find. Support children to name the minibeasts they find. Ensure children are respectful when observing minibeasts. Support children to name some plants.</p> <p>Describe what they see, hear and feel whilst outside (Chemistry)</p> <p>Materials</p> <p><u>Knowledge</u> Know the name of some materials</p> <p><u>Skills</u> Encourage children to start naming some materials</p> <p>Describe what they see, hear and feel whilst outside (Physics)</p> <p>Forces</p> <p>Forces</p> <p><u>Knowledge</u></p>

	<p>shadow <u>Skills</u> Encourage children to talk about the shadows that they see inside and outdoors.</p> <p>Sound <u>Knowledge</u> Can recognise some sounds <u>Skills</u> Support children to identify what is making each sound.</p> <p>Understand the effect of changing seasons on the natural world around them. (Biology) Seasonal Changes <u>Knowledge</u> Begin to understand that seasons impact the temperature <u>Skills</u> Encourage children to talk about the clothes they wear in different seasons and why. Encourage children to talk about the weather throughout the year. Encourage children to talk about the changes in plants throughout the year.</p>	<p>materials that can float or sink. Encourage children to notice and talk about the objects in the playground that are moved by the wind Sound <u>Knowledge</u> Know some adjectives to describe sounds <u>Skills</u> Encourage children to describe the sounds they hear. Earth and Space Encourage children to talk about how binoculars or magnifying glasses make distant objects appear larger and closer. Understand the effect of changing seasons on the natural world around them. (Biology) Seasonal Changes <u>Knowledge</u> Begin to understand that seasons impact the temperature <u>Skills</u> Encourage children to talk about how they feel in different types of weather/seasons. Encourage children to talk about the clothes they wear in different seasons and why. Encourage children to talk about the weather throughout the year. Encourage children to talk about what they notice when it rains. Encourage children to ask questions about the weather and seasonal changes.</p>	<p>Know some adjectives to describe how objects move <u>Skills</u> Encourage children to talk about how they changed how the cars rolled down ramps/gutters. Encourage children to talk about what happened when they poured sand/water through wheels and down gutters and how they changed this. Encourage children to describe how sand or water moves down pipes or gutters Sound <u>Knowledge</u> Know some adjectives to describe sounds Can recognise some sounds <u>Skills</u> Encourage children to ask questions about the sounds they hear and what is making them.</p> <p>Understand the effect of changing seasons on the natural world around them. (Biology) Seasonal Changes <u>Knowledge</u> Begin to understand that seasons impact the temperature <u>Skills</u> Encourage children to talk about how they feel in different types of weather/seasons. · Encourage children to talk about the clothes they wear in different seasons and why. Encourage children to talk about the weather throughout the year. Encourage children to ask questions about the weather and seasonal changes.</p>
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KSI/2

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EI values	Be respectful	Be understanding	Be compassionate	Be responsible	Be patient	Be positive
Whole School Theme	Diversity	Values & Perceptions	Social Justice	Sustainable Development	Interdependence	Aspirations
Year 1	<p>SEASONAL CHANGES and PLANTS (ONGOING)</p> <p>Jim Cantore (Meteorologist and storm tracker) Nehemiah Grew</p> <p>ANIMALS INC HUMANS <i>Identify, name, describe and compare common animals inc humans</i></p> <p>(Celebrating beauty and difference of animals. Body parts looking at difference eg deaf, blind)</p> <p>Leonardo Da Vinci (Anatomical drawing, 'Vitruvian Man')</p>	<p>SEASONAL CHANGES and PLANTS (ONGOING)</p> <p>Jim Cantore (Meteorologist and storm tracker) Nehemiah Grew</p> <p>ANIMALS INC HUMANS <i>Identify, name, describe and compare common animals inc humans</i></p> <p>(Celebrating beauty and difference of animals. Body parts looking at difference eg deaf, blind)</p> <p>Leonardo Da Vinci (Anatomical drawing, 'Vitruvian Man')</p>	<p>SEASONAL CHANGES and PLANTS (ONGOING)</p> <p>Jim Cantore (Meteorologist and storm tracker) Nehemiah Grew</p> <p>ANIMALS INC HUMANS <i>Identify, name, describe and compare common animals inc humans</i></p> <p>(Celebrating beauty and difference of animals. Body parts looking at difference eg deaf, blind)</p> <p>Leonardo Da Vinci (Anatomical drawing, 'Vitruvian Man')</p>	<p>SEASONAL CHANGES and PLANTS (ONGOING)</p> <p>Jim Cantore (Meteorologist and storm tracker) Nehemiah Grew</p> <p>EVERYDAY MATERIALS <i>Identify, name and describe materials and their properties.</i></p> <p>(What materials can go back into the environment sustainable)</p> <p>Charles Macintosh</p>	<p>SEASONAL CHANGES and PLANTS (ONGOING)</p> <p>Jim Cantore (Meteorologist and storm tracker) Nehemiah Grew</p> <p>EVERYDAY MATERIALS <i>Identify, name and describe materials and their properties.</i></p> <p>(What materials can go back into the environment sustainable)</p> <p>Charles Macintosh</p>	<p>SEASONAL CHANGES and PLANTS (ONGOING)</p> <p>Jim Cantore (Meteorologist and storm tracker) Nehemiah Grew</p> <p>EVERYDAY MATERIALS <i>Identify, name and describe materials and their properties.</i></p> <p>Charles Macintosh</p>
Year 2	<p>PLANTS</p> <p>ANIMALS INC HUMANS <i>Animal needs, offspring growing into adults</i></p> <p>(Offspring growing into adults, similarities and differences)</p> <p>Florence Nightingale (Nurse and founder of modern nursing)</p>	<p>PLANTS</p> <p>ANIMALS INC HUMANS <i>Animal needs, offspring growing into adults</i></p> <p>(Offspring growing into adults, similarities and differences)</p> <p>Florence Nightingale (Nurse and founder of modern nursing)</p>	<p>PLANTS</p> <p>EVERYDAY MATERIALS <i>Consolidation and deepening</i></p> <p>USES OF EVERYDAY MATERIALS <i>Identify and compare materials</i></p> <p>Scientists John Dunlop, and John McAdam.</p>	<p>PLANTS</p> <p>USES OF EVERYDAY MATERIALS <i>Identify and compare materials</i></p> <p>(What materials can go back into the environment sustainable)</p> <p>Scientists John Dunlop, and John McAdam.</p>	<p>PLANTS</p> <p>LIVING THINGS AND THEIR HABITATS <i>Difference between alive and dead/ what lives where and why</i></p> <p>(Living things depend on their environment to survive. What and who do I depend on?)</p> <p>Prem Singh Gill (Polar Scientist who studies where Antarctic seals live, breed and feed, so we can know more about where they prefer to live) Dawood Qureshi (Marine Biologist who studies wildlife in the ocean)</p>	<p>PLANTS</p> <p>LIVING THINGS AND THEIR HABITATS <i>Difference between alive and dead/ what lives where and why</i></p> <p>(Living things depend on their environment to survive. What and who do I depend on?)</p> <p>Prem Singh Gill (Polar Scientist who studies where Antarctic seals live, breed and feed, so we can know more about where they prefer to live) Dawood Qureshi (Marine Biologist who studies wildlife in the ocean)</p>

Year 3	<p>ROCKS (Land use in geography and stone age in history)</p> <p>Scientists, Mary Anning Florence Bascom (Geologist who studied the origin and formation of mountains)</p>	<p>ANIMALS INC HUMANS <i>Animals and human nutrition / skeletons and muscles</i></p> <p>(Values connected to food choice and the way we live)</p> <p>Marie Curie (Physicist who invented the first mobile x-ray machine to treat soldiers wounded on the battlefield in WWI)</p>	<p>FORCES AND MAGNETS <i>Contact and non contact forces</i></p> <p>(Action and consequence)</p> <p>Isaac Newton</p>	<p>PLANTS <i>Structure and function of plants</i></p> <p>(Time of the year, leading into interdependence theme)</p> <p>Carl Linnaeus (Botanist who studied the conditions for successfully growing bananas and developed a method to reproduce them in Europe) Dr Kelsey Byers (Biologist who studies flower smells and how they attract insects)</p>	<p>PLANTS <i>Structure and function of plants</i></p> <p>(Time of the year, leading into interdependence theme)</p>	<p>LIGHT (Distance of learning with year 5 light)</p>
Year 4	<p>LIVING THINGS AND THEIR HABITATS <i>Classification</i></p> <p>(Diversity of living things and beauty of what is around us)</p> <p>Wangari Maathai (Biologist & Environmental Activist awarded the 2004 Nobel Peace Prize for her contribution to sustainable development)</p>	<p>ELECTRICITY <i>Simple circuits. Conductors and Insulators.</i></p> <p>Thomas Edison (Inventor of the lightbulb and power grid) Lewis Howard Latimer (Electronic Engineer who improved the design of Edison's light bulb and brought street lighting to the world)</p>	<p>STATES OF MATTER <i>Change of state / water cycle</i></p> <p>(Heating water will have consequences)</p> <p>Anders Celsius (Astronomer who invented the degrees Celsius temperature scale)</p>	<p>ANIMALS INC HUMANS <i>Digestive system, food chains</i></p> <p>(Where food is coming from)</p> <p>William Beaumont (Surgeon who first observed and studied human digestion as it occurs in the stomach) Washington & Lucius Sheffield (Dentists who invented toothpaste in a tube)</p>	<p>SOUND <i>Vibration, pitch, volume</i></p> <p>Aristotle (Philosopher who developed the concept that sound travels through air due to the movement of air particles)</p>	<p>SOUND <i>Vibration, pitch, volume</i></p> <p>Aristotle (Philosopher who developed the concept that sound travels through air due to the movement of air particles)</p>
Year 5	<p>ANIMALS INC HUMANS <i>Humans develop to old age</i></p> <p>(different ages of community have different needs - ageing populations globally and ethics)</p> <p>Virginia Apgar (Doctor & Medical Researcher who developed a method of evaluating the well-being of new-born babies)</p>	<p>LIVING THINGS AND THEIR HABITATS <i>Life cycles and reproduction</i></p> <p>Scientists, David Attenborough and Jane Goodall.</p>	<p>FORCES <i>Gravity, frictions and ways to enhance the effect of forces.</i></p> <p>(Link to theory of gravity - one person)</p> <p>Scientists, Archimedes (Mathematician who developed theories about how levers and pulleys can lift and move heavy objects) George Cayley (Aeronautical Engineer who designed the first successful glider to carry a human being) Brahmagupta (Mathematician &</p>	<p>FORCES <i>Gravity, frictions and ways to enhance the effect of forces.</i></p> <p>(Link to theory of gravity - one person)</p> <p>Scientists, Archimedes (Mathematician who developed theories about how levers and pulleys can lift and move heavy objects) George Cayley (Aeronautical Engineer who designed the first successful glider to carry a human being) Brahmagupta (Mathematician &</p>	<p>PROPERTIES AND CHANGES OF MATERIALS (Last chemistry unit, distance to KS3)</p> <p>Scientists, Spencer Silver and Ruth Benerito Jamie Garcia (Chemist who discovered a fully recyclable plastic)</p>	<p>LIGHT (Distance of learning with with Year 3 and KS3)</p> <p>Euclid (Mathematician who predicted that light travels in straight lines and we only see things that light falls on) Ibn al-Haytham (Alhazen) (Physicist & Mathematician who developed a theory that light travels in a straight line, and proved it by carrying out the first scientific experiment)</p>

			Astronomer who was the first scientist to talk about gravity)	Astronomer who was the first scientist to talk about gravity)		
Year 6	<p>ELECTRICITY</p> <p>(Connect with Global Issue of Electricity not available to all, Also in Term 1 to be close with year 4)</p> <p>Alessandro Volta (Physicist who developed the electric battery)</p>	<p>LIVING THINGS AND THEIR HABITATS <i>Classification</i></p> <p><i>Agnes Arber</i> (Botanist and first woman to become a fellow of the Royal Society who studied aquatic flowering plants and monocots, a group of flowering plants)</p>	<p>EVOLUTION AND INHERITANCE</p> <p>(inherit genetics but we can choose to make everyone equals)</p> <p>Scientists, Charles Darwin and Alfred Wallace Nettie Stevens (Geneticist who concluded that sex is inherited as a chromosomal factor and that males determine the gender of offspring)</p>	<p>EARTH AND SPACE</p> <p>(Connect with Neil Armstrong - one person? Moved from Year 5 NC to build on Forces)</p> <p>Scientists, Galileo Galilei, Ptolemy, Alhazen and Copernicus Margaret Hamilton (Computer Scientist who was responsible for the software that allowed astronauts Neil Armstrong and Buzz Aldrin to land on the Moon) Steven Hawking Katherine Johnson</p>	<p>ANIMALS INC HUMANS</p> <p>Circulatory system, diet/lifestyle, water transported</p> <p>(Impact of one's actions on self and others. Blood / bone marrow donors)</p> <p>William Harvey (Doctor who discovered the nature of blood circulation and the function of the heart as a pump) Richard Doll (Doctor who proved the link between lung cancer and smoking)</p>	CONSOLIDATION OF UPPER KS2

BIOLOGY, CHEMISTRY, PHYSICS OVERVIEW

BIOLOGY

YEAR	TOPIC	TOPIC	TOPIC	TOPIC
NUR	<p>Talk about what they see, using a wide vocabulary</p> <p>Understand the key features of the life cycle of a plant and an animal</p>	Plant seeds and care for growing plants.	Begin to understand the need to respect and care for the natural environment and all living things	
REC	Understand the effects of changing seasons on the natural world around them e.g. how animals and plants may change or behave differently	Understand the effects of changing seasons on the natural world around them e.g. how animals and plants may change or behave differently	Understand the effects of changing seasons on the natural world around them e.g. how animals and plants may change or behave differently	

	Explore the natural world around them (including plants and animals)	Describe what they see, hear and feel whilst outside (including plants and animals)	Recognise some environments that are different from the one in which they live	
YEAR 1	PLANTS	ANIMALS INC HUMANS		
YEAR 2	PLANTS	ANIMALS INC HUMANS	LIVING THINGS AND THEIR HABITATS	
YEAR 3	PLANTS	ANIMALS INC HUMANS		
YEAR 4		ANIMALS INC HUMANS	LIVING THINGS AND THEIR HABITATS	
YEAR 5		ANIMALS INC HUMANS	LIVING THINGS AND THEIR HABITATS	
YEAR 6		ANIMALS INC HUMANS	LIVING THINGS AND THEIR HABITATS	EVOLUTION AND INHERITANCE

CHEMISTRY

YEAR	TOPIC	TOPIC	TOPIC
NUR	Use all their senses in hands-on exploration of natural materials Explore collections of materials with similar and/or different properties Talk about the differences between materials and changes they notice		
REC	Explore the natural world around them Describe what they see, hear and feel while outside		
YEAR 1	EVERYDAY MATERIALS		
YEAR 2	USES OF EVERYDAY MATERIALS		
YEAR 3		ROCKS	
YEAR 4	STATES OF MATTER		

YEAR 5	PROPERTIES AND CHANGES OF MATERIALS		
YEAR 6			

PHYSICS

YEAR	TOPIC	TOPIC	TOPIC	TOPIC	TOPIC	TOPIC
NUR	Explore and talk about different forces they can feel Explore how things work					
REC						
YEAR 1	SEASONAL CHANGES					
YEAR 2						
YEAR 3		LIGHT	FORCES AND MAGNETS			
YEAR 4				SOUND	ELECTRICITY	
YEAR 5		LIGHT	FORCES			
YEAR 6			EARTH AND SPACE		ELECTRICITY	