

SCIENCE CURRICULUM PLAN – LORD DERAMORE'S PRIMARY SCHOOL

Intent: Science is a core subject. We believe that Science is vital in inspiring children's interest and curiosity in the world around them. It allows them to widen their knowledge and understanding of phenomena and teaches them that they don't need to just accept how and why things happen but can test and investigate themselves, using different methods of enquiry, to answer their own questions or to satisfy their own fascinations. It teaches them to reason and explain and to evaluate and reassess when things don't go as expected. Science allows children to make apply many of the skills they learn in other areas of the curriculum; note taking, timing, measuring, collecting and presenting findings, and also understanding geographical, historical and social contexts. It allows children to enjoy, and make use of, the natural world and to enjoy moments of awe and wonder when they see, or find out things, that bewilder or surprise them. Science is crucial to the future of many aspects of our daily lives such as health and medical care, design, technology, engineering, travel and exploration. We believe that it is important that children know that Science isn't just about learning more about the things we already know but that it helps us to push boundaries, solve problems, improve situations and create new opportunities. We want our pupils to know how Science affects them and about the many Scientific career paths available regardless of their gender or background.

Implementation: Science is taught discretely within year groups, with themes planned on a yearly cycle. A science and an outdoor week are focusses of the year where the opportunities throughout the week revolve around using and applying science skills and knowledge. At Lord Deramore's, we also value outdoor learning as an important part of a child's primary school experience. Extra-curricular and enhancement opportunities, such as STEM club, Hovercraft Day and close working with the university, are included to enhance the children's experience and enjoyment of science.

Impact: Children have a learning journal which begins in EYFS and moves through school with them. Each term, an investigation is recorded and deep marked to show progression in scientific knowledge and skills throughout school. Science is assessed by each teacher throughout the year, specifically at the end of a topic. Science levels are reported at the end of the year in the annual report. The Science Lead and SLT monitor the impact of the teaching and learning in science through learning walks, pupil voice, book trawls, staff questionnaires and lesson observations.



	PHASE 1		PHASE 2		PHASE 3		
	FS2	Y1	Y2	Y3	Y4	Y5	Y6
Knowledge (substantive and disciplinary)	<u>Understanding the World: The Natural World</u> ELG Explore the natural world around them, making observations and drawing pictures of animals and plants; Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. <u>Scientific skills</u> <ul style="list-style-type: none"> Ask simple questions and recognise that they can be answered in different ways. Observe closely, using simple equipment. Perform simple tests. Identify and classify. Use observations and ideas to suggest answers to questions. Gather and record data to help in answering questions. Read and spell scientific vocabulary at a level consistent with their increasing word and spelling knowledge. 		<u>Scientific skills</u> <ul style="list-style-type: none"> Ask relevant questions and use different types of scientific enquiries to answer them. Use straightforward scientific evidence to answer questions or to support findings. Make systematic and careful observations and where appropriate take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Set up simple practical enquiries, comparative and fair tests. Identify differences, similarities or changes related to simple scientific ideas and processes. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. 		<u>Scientific skills</u> <ul style="list-style-type: none"> Plan different types of scientific enquiries to answers questions, including recognising and controlling variables where necessary. Identify scientific evidence that has been used to support or refute ideas or arguments. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where necessary. Use test results to make predictions to set up further comparative and fair tests. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs. Report and present findings from enquiries including conclusions, causal relationships and explanations of and degree of trust in results, in orals and written forms such as displays and other presentations. Read, spell and pronounce scientific vocabulary correctly. <u>Scientific knowledge</u> Biology: Living things and habitats <ul style="list-style-type: none"> recognise that living things can be grouped in a variety of ways explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment recognise that environments can change and that this can sometimes pose dangers to living things 		

	<p><u>Scientific knowledge</u> Biology: Plants identify and name a variety of common wild and garden plants, including deciduous and evergreen trees identify and describe the basic structure of a variety of common flowering plants, including trees</p> <p>Biology: Animals, including humans identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals identify and name a variety of common animals that are carnivores, herbivores and omnivores describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</p> <p>Chemistry: Everyday materials distinguish between an object and the material from which it is made identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock describe the simple physical properties of a variety of everyday materials compare and group together a variety of everyday materials on the basis of their simple physical properties</p> <p>Physics: Seasonal changes observe changes across the 4 seasons observe and describe weather associated with the seasons and how day length varies</p>	<ul style="list-style-type: none"> ● Gather, record, classify and present data in a variety of ways to help in answering questions. ● Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. ● Read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge. <p><u>Scientific knowledge</u> Biology: Plants</p> <ul style="list-style-type: none"> ● observe and describe how seeds and bulbs grow into mature plants ● find out and describe how plants need water, light and a suitable temperature to grow and stay healthy ● identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers ● explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant ● investigate the way in which water is transported within plants ● explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal <p>Biology: Animals, including humans</p> <ul style="list-style-type: none"> ● notice that animals, including humans, have offspring which grow into adults ● find out about and describe the basic needs of animals, including humans, for survival (water, food and air) ● describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene ● identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat ● identify that humans and some other animals have skeletons and muscles for support, protection and movement <p>Biology: Living things and habitats</p>	<ul style="list-style-type: none"> ● describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals ● give reasons for classifying plants and animals based on specific characteristics <p>Biology: Animals, including humans</p> <ul style="list-style-type: none"> ● describe the simple functions of the basic parts of the digestive system in humans ● identify the different types of teeth in humans and their simple functions ● construct and interpret a variety of food chains, identifying producers, predators and prey ● describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird ● describe the life process of reproduction in some plants and animals ● describe the changes as humans develop to old age ● identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood ● recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function ● describe the ways in which nutrients and water are transported within animals, including humans <p>Biology: Evolution and inheritance</p> <ul style="list-style-type: none"> ● recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago ● recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents ● identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution <p>Chemistry: States of matter</p> <ul style="list-style-type: none"> ● compare and group materials together, according to whether they are solids, liquids or gases ● observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) ● identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature <p>Chemistry: Properties of changes of materials</p> <ul style="list-style-type: none"> ● compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets ● know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
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			Physics: Forces and magnets <ul style="list-style-type: none">notice that some forces need contact between 2 objects, but magnetic forces can act at a distanceobserve how magnets attract or repel each other and attract some materials and not otherscompare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materialsdescribe magnets as having 2 polespredict whether 2 magnets will attract or repel each other, depending on which poles are facing		<ul style="list-style-type: none">explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling objectidentify the effects of air resistance, water resistance and friction, that act between moving surfacesrecognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect Physics: Earth and space <ul style="list-style-type: none">describe the movement of the Earth and other planets relative to the sun in the solar systemdescribe the movement of the moon relative to the Earthdescribe the sun, Earth and moon as approximately spherical bodiesuse the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky		
Progression and Expectations	<p><u>Working Scientifically</u> Know how talk about the things they observe and how to answer questions about what they have seen.Investigating Ice Snowflakes</p> <p>Know how to use simple equipment such as binoculars and magnifying glasses to look closely at things.</p> <p>Know how to perform simple tests.</p> <p>Know how to use classification terms such as plant, animal</p> <p>Know how to record their observations using pictures and labels Observational Drawing</p> <p><u>Biology: Plants</u> Talk about the differences and similarities between common plants. Know that plants and trees have different names</p>	<p><u>Working Scientifically</u> Know how to ask simple questions about what they are interested in and explore the different answers. Enquiry Area</p> <p>Know how to use equipment such as binoculars, magnifying glasses, bug collectors and measuring jugs appropriately to observe Great Big Bird Watch</p> <p>Know how to experiment and explore to find out what happens to different things Making predictions Investigating Minibeasts</p> <p>Know how to use more exact classification such as evergreen, fish, insect.Finding and naming leaves</p>	<p><u>Working Scientifically</u> Know how to ask simple scientific questions about what they observe and are learning about. Testing materials</p> <p>Know how to use simple equipment such as thermometers, rain guages and simple microscopes to make observations.</p> <p>Know how to carry out simple tests from adult direction, including knowing why a fair test is important. Fair Tests Testing sycamore seeds</p> <p>Know how to identify and classify things according to given criteria e.g. deciduous, evergreen, type of material</p> <p>Know how to explain to others what I have</p>	<p><u>Working Scientifically</u> Know how to ask relevant scientific questions about the topics they are studying.</p> <p>Know how to use observations and knowledge to answer scientific questions Human Body Investigation</p> <p>Know how to set up a simple enquiry to explore scientific question using research to help. Investigating Rocks</p> <p>Know how to set up a fair test with different criteria and explain why it is fair.Growing plants from seeds</p> <p>Know how to make careful and accurate observations using mathematical knowledge up to Y3 standards,, including</p>	<p><u>Working Scientifically</u> Know how to ask relevant scientific questions about the topics they are studying.</p> <p>Know how to use observations and knowledge to answer scientific questions, linking what they notice to their comments.Investigating Liquids</p> <p>Know how to set up a simple enquiry to explore scientific question using research of more abstract scientific concepts to help. Melting chocolate</p> <p>Know how to set up a fair test and explain why it is fair.</p> <p>Know how to make careful and accurate observations using mathematical knowledge up to Y4</p>	<p><u>Working Scientifically</u> Know how to plan different types of scientific enquiry including appropriate investigations, fair tests and enquiry based investigations Investigating electrical conductors</p> <p>Know how to control variables in an enquiry and isolate each one</p> <p>Know how to measure accurately and precisely using a range of equipment (using measurements fromY5 maths) Air resistance</p> <p>Know how to record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p>	<p><u>Working Scientifically</u> Know how to plan different types of scientific enquiry and know which type is best for what they need to find out.</p> <p>Know how to control variables in an enquiry and isolate each one, justifying and explaining why</p> <p>Know how to measure accurately and precisely using a range of equipment which measure length, mass, capacity etc in line with Y6 maths.</p> <p>Know how to record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs and know the best way to present data.</p>

<p>and look different. Growing potatoes Wildflowers and carrots</p> <p><u>Biology: Animals, including humans</u> Talk about the similarities and differences between different types of animals and describe where they live. Name some different animals of different types. Know how to name the parts of the human body that we can see. Camouflage</p> <p><u>Chemistry: Everyday materials</u> Describe the properties an object is made from and begin to name the material an object is made from. Compare similarities and differences between materials. Investigating Ice</p> <p><u>Physics: Seasonal changes</u> Describe the weather through observation. Weather Snowflakes Name the seasons and make observations of the similarities and differences between them.</p>	<p>Know how to make links between what they see and the answer to questions about what has happened. Frogspawn</p> <p>Know how to make simple measurements such as distance and time. Melting Ice</p> <p>Record what they see and what they have done using pictures and labels</p> <p><u>Biology: Plants</u> Know and name a variety of common wild and garden plants. Know and name the petals, stem, leaves and root of a plant. Know and name the roots, trunk, branches and leaves of a tree. Finding and sorting leaves</p> <p><u>Biology: Animals, including humans</u> Know and name a variety of animals, including fish, amphibians, reptiles, birds and mammals. Great Big Bird Watch Classify and know animals by what they eat (carnivore, herbivore and omnivore). Bird Feeders What animals eat Know how to sort animals into categories; describe and compare their</p>	<p>found out and why a test was fair. Fair Tests</p> <p>Know how to use simple data to answer questions.</p> <p>Know how to use equipment, including thermometers and data loggers to make measurements.</p> <p><u>Biology: Living things and habitats</u> Identify things that are living, dead and never lived Know how a specific habitat provides the basic needs of things living there (plants and animals) Wormery Identify and name plants and animals in a range of habitats Match living things to their habitat Know how animals find their food Name some different sources of food for animals Know and can explain a simple food chain Food chains</p> <p><u>Biology: Plants</u> Know how seeds and bulbs grow into plants. Seeds Know what plants need in order to grow and stay healthy.</p> <p><u>Biology: Animals, including humans</u> Know the basic stages in a life cycle</p>	<p>the use of standard units.</p> <p>Know how to use equipment, including thermometers and data loggers to make measurements.</p> <p>Know how to gather, record, classify using simple charts and present data in different ways to answer scientific questions.</p> <p>Know how to use diagrams, keys, bar charts and tables (in line with Y3 maths); using scientific language.</p> <p>Know how to use findings to report in different ways, including oral and written explanations, presentation.</p> <p>Know how to draw conclusions and suggest improvements. A magnetic game</p> <p>Know how to make a prediction with a reason.</p> <p>Know how to identify differences, similarities and changes relating to an enquiry.</p> <p><u>Biology: Plants</u> Know the function of different parts of</p>	<p>standards,, including the use of standard units.</p> <p>Know how to use equipment including thermometers and data loggers to make measurements and use the equipment more independently. Know how to gather, record, classify using a variety of charts and present data in different ways to answer scientific questions. Investigating gases</p> <p>Know how to use diagrams, keys, bar charts and tables (in line with Y4 maths); using scientific language. The Water Cycle</p> <p>Know how to use findings to plan a report in different ways, including oral and written explanations, presentation. States of matter animation</p> <p>Know how to draw conclusions and suggest improvements, describing how they would change an investigation.</p> <p>Know how to make a prediction with a reason, changing their prediction in</p>	<p>Know how to use the outcome of test results to make predictions and set up a further comparative and fair test. Testing thermal insulators</p> <p>Know how to report findings from enquiries in a range of ways including using IT, writing, diagrams and oral responses</p> <p>Know how to explain a conclusion from an enquiry Properties of materials</p> <p>Know how to explain causal relationships in an enquiry - why something happened. Air resistance</p> <p>Know how to relate the outcome from an enquiry to scientific knowledge in order to state whether evidence supports or refutes an argument or theory. Water resistance</p> <p>Know how to read, spell and pronounce scientific vocabulary accurately.</p> <p><u>Biology: Living things and habitats</u> Know the life cycle of different living things e.g. mammal, amphibian, insect, bird.</p>	<p>Know how to use the outcome of test results to make more accurate predictions and set up a further comparative and fair test in response to what is found. Know how to report findings from enquiries in a range of ways including details of the planning, doing and evaluating stages.</p> <p>Know how to explain a conclusion from an enquiry, evaluating what is found out.</p> <p>Know how to explain causal relationships in an enquiry - why something happens and its impact on other things. Shadows</p> <p>Know how to relate the outcome from an enquiry to scientific knowledge in order to state whether evidence supports or refutes an argument or theory.</p> <p>Know how to read, spell and pronounce scientific vocabulary accurately, researching new terms.</p> <p><u>Biology: Living things and habitats</u> Classify living things into broad groups according to observable</p>
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		<p>structure. Sorting animals by habitat Sorting Animals Investigating Minibeasts Name some internal body parts and know how to link the correct part of the human body to each sense. Exploring senses Chemistry: Everyday materials Distinguish between an object and the materials it is made from. Know the materials that an object is made from. Know the difference between wood, plastic, glass, metal, water and rock. Know about the properties of everyday materials. Properties of materials Group objects based on the materials they are made from. Sorting objects</p> <p>Physics: Seasonal changes Observe and know and about the changes in the seasons. Finding and sorting leaves Snowflakes Name the seasons and know about the types of weather in each season.</p>	<p>for animals, including humans. Animal Babies Know what animals and humans need to survive. Know why exercise, a balanced diet and good hygiene are important for humans. Know how to sort living, non-living and never living things.</p> <p>Chemistry: Materials and their uses Identify and name a range of materials including wood, metal, plastic glass, brick, rock, paper and cardboard. Different materials Know why a material might not be used for a specific job. Famous scientist Charles Macintosh Know how materials can be changed by squashing, bending, twisting and stretching.</p>	<p>glowing plants and trees. Parts of a plant Know what different plants need to help them survive. Plant Care Know how water is transported within plants. Purpose of the stem Know the plant life cycle, especially the importance of flowers. Life cycles - Potatoes Growing plants from seeds</p> <p>Biology: Animals, including humans Know about the importance of a nutritious, balanced diet. Know how nutrients, water and oxygen are transported within animals and humans. Know about the skeletal system of a human. Know about the muscular system of a human. Know about the purposes of the skeleton in humans and animals.</p> <p>Chemistry: Rocks Compare and group rocks based on their appearance and physical properties, giving a reason. Investigating Rocks Know how fossils are formed. Fossils Know how soil is made Fair Tests</p>	<p>light of what they observe.</p> <p>Know how to identify differences, similarities and changes relating to an enquiry, changing their ideas in response to what they observe. Melting Candles</p> <p>Biology: Living things and habitats Group living things in different ways. Use classification keys to group, identify and name living things. Create classification keys to group, identify and name living things. Know how changes to an environment could endanger living things. Camouflage</p> <p>Biology: Animals, including humans Identify and name the parts of the human digestive system The digestive system Know the functions of the organs in the human digestive system Identify and know the different types of teeth in humans Investigating teeth Know the functions of different human teeth Cleaning Teeth Use and construct food chains to</p>	<p>Know the differences between different life cycles. Know the process of reproduction in plants. Famous scientists - Beatrix Potter Know the process of reproduction in animals.</p> <p>Biology: Animals, including humans Create a timeline to indicate stages of growth in humans.</p> <p>Chemistry: Properties and changes of materials Compare and group materials based on properties (e.g. hardness, solubility, transparency, conductivity). Investigating electrical conductors Testing thermal insulators Properties of materials Know how a material dissolves to form a solution; explaining the process of dissolving. Know and show how to recover a substance from a solution. Know how some materials can be separated (filtering, sieving, evaporating). Know and can demonstrate that some changes are reversible and irreversible. Changes Give evidenced reasons why</p>	<p>characteristics and based on similarities and differences. Classifying animals Know how living things have been classified. Give reasons for classifying plants and animals in a specific way.</p> <p>Biology: Animals, including humans Identify and name the main parts of the human circulatory system. Know the function of the heart, blood vessels and blood. Know the impact of diet, exercise, drugs and lifestyle on health. Know the ways in which nutrients and water are transported in animals.</p> <p>Biology: Evolution and inheritance Know how the Earth and living things have changed over time. Know how fossils can be used to find out about the past. Know about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents). Know how animals and plants are</p>
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				<p>out an enquiry to test this out. Know how magnets work. Predict whether magnets will attract or repel and give a reason.</p>	<p>Know what happens to a sound as it travels away from its source. Investigating sound volume</p> <p><u>Physics: Electricity</u> Identify and name appliances Construct a series of circuit. Identify and name components in a series circuit (cells, wires, bulbs, switches, buzzers). Creating simple circuits Know how to draw a circuit. Know the function of a switch in a circuit. Know the difference between a conductor and an insulator, giving examples of each.</p>		
Vocabulary	<p>Fish, amphibians, reptiles, birds, mammals, pets, human, animal, senses, parts of the body, animal names, animal classes, materials e.g. wood, plastic, glass etc, properties hard, soft, stretchy, stiff, etc, plant, tree, stem, leaf, petal, roots, trunk, branches, fruit, vegetables, bulb, seed, flower, seasons, day, night, weather, wind, rain, snow, etc, hot, cold, warm, question, answer, sort, map, describe, group</p>	<p>Grow, adult, egg, caterpillar, pupa, butterfly, water, food, air, exercise, hygiene, spawn, tadpole, frog, nutrition, reproduce, egg, chick, chicken, lamb, sheep, baby, toddler, child, teenager, adult, living, dead, never alive, habitats, micro-habitats, food, food chain, sun, grass, cow, human, alive, healthy, shelter, seashore, woodland, ocean, rainforest, hot/cold/warm, dry/damp/wet, bright/shade/dark, deciduous, evergreen, trunk, branches, leaf, root, leaves, bud, flowers, blossom, grow, healthy, petals, root, stem, fruit, vegetables, bulb, seed, water, light, germination, reproduction, wood, metal, plastic, glass, brick, rock, paper, cardboard, rubber, waterproof, squash, bend, stretch, twist, Observe, equipment, identify, classify, diagram, chart, data, compare, contrast, biology, chemistry, physics, record, Nutrition, carbohydrates, protein, fat, fibre, water, vitamins, minerals, skeletons, bones, joints.</p>	<p>Digestion, mouth, tongue, saliva, oesophagus, stomach, acid, enzymes, small intestine, absorb, vitamins, large intestine, colon, teeth, incisors, canines, molars, sun, producers, prey, predators, carnivore, herbivore, omnivore, appliances, electricity, circuit, cell, wire, bulb, buzzer, danger, insulator, conduct, metal, switch, flow, environment, flowering, non-flowering, plants, animals, vertebrate, environment, invertebrate, insect, fish, amphibians, reptiles, birds, mammals, grasses, ferns, mosses, ecological, population, development, litter, deforestation, vibrate, vibration, ear, hear, sound, volume, pitch, faint, loud, string, percussion, woodwind, brass, insulate, solid, solidify, iron, ice, melt, freeze, liquid, evaporate, condense, gas, state, matter, heat, cool, degrees, Celcius, thermometer, water cycle, evaporation, condensation, temperature, melting, warm/cool, water vapour, scientific enquiry, comparative and fair test, systematic, record, classify, present, labelled diagrams, keys, predictions, evidence, sources Puberty, life cycle, gestation, growth, reproduce, foetus, baby, fertilisation, toddler, child, teenager, adult, life expectancy, adolescence, earth, sun, moon, planets, stars, solar system, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, rotate, day, night, Aristotle, Ptolemy, Galileo, Copernicus, Brahe, Alhazen, orbit, axis, spherical, heliocentric, geocentric, hemisphere, season, tilt, gravity, air resistance, water</p>				

		vertebrate, invertebrate, muscles, force, push, pull, open, surface, magnet, magnetic, attract, repel, poles, North, South, light, dark, reflect, surface, natural, star, sun, moon, shadow, solid, artificial, torch, candle, lamp, sunlight, dangerous, common, wild, plant, deciduous, evergreen, trunk, branches, leaf, root, bud, blossom, petals, root, fruit, fruit, vegetables, bulb, seed, common, wild, garden, deciduous, evergreen, water, light, temperature, grow, healthy, germination, reproduction, appearance, physical, hard/soft/shiny/dull, rough/smooth, absorbent/non-absorbent, fossils sedimentary, rock, soils, crystals fair test, observation, accurate, measurement, drawing, bar charts, differences, similarities, changes,		resistance, friction, surface, force, effect, move, accelerate, decelerate, direction, mechanism, pulley, gear, spring, Galileo, Isaac Newton, life cycle, mammal, amphibian, insect, bird, plant, animal, sexual, asexual, properties, hardness, solubility, transparency, conductor, electrical, thermal, magnet, dissolve, solution, separate, solid, liquid, gas, evaporate, reversible, mix, evaporate, filter, sieve, melt, irreversible, burn, rust, conductivity, insulation, chemical Plan, measurements, accuracy, labels, tables, bar graphs, line graphs, predictions, conclusion, explanation, Evolution, adaption, inherited, adaptive, traits, natural selection, inheritance, Charles Darwin, Alfred Wallace, DNA, genes, variation, parent, offspring, fossil, environment, habitat, plants, animals, living things, classify, Linnaean, classification, domain, kingdom, phylum, class, order, family, genus, species, characteristics, vertebrates, invertebrates, microorganisms, organism, flowering, non-flowering, internal organs, heart, lungs, liver, kidney, brain, skeletal, skeleton, muscle, muscular, digest, digestion, digestive, circulatory system, heart, blood vessels, blood, impact, diet, exercise, drugs, lifestyle, nutrients, damage, drugs, alcohol, substances, voltage, brightness, volume, switches, danger, series circuit, safety, circuit, diagram, switch, bulb, buzzer, motor, symbol, light, travel, straight, reflect, reflection, light source, object, shadow, mirror, periscope, rainbow, filter Variables, precision, repeat readings, scientific diagrams, classification keys, scatter graphs, further comparative and fair test, conclusion, causal relationship, quantitative		
Literature	EY - Bug Hotel, Weeds Find a Way, Ten Seeds, Yucky Worms, We all went on a Safari, Seasons, Autumn is Here, Snow, Little Cloud Y1 - Not a Stick, The 3 Pigs, Somebody Swallowed Stanley, The Adventures of a Plastic Bottle, Extra Yarn, It Started with a Seed, The Gigantic Turnip, Leaf Man, Goodbye Summer, Hello Autumn, Poems about Seasons	Y2 - Pond Circle, Harry the Poisonous Centepede, Creature Features, Leaf, A seed is sleepy, Mr Sleepy, The Disgusting Sandwich, Tadpole's Promise, Fussy Freda, What to do with a Box, Brick. Y3 - The Last Tree, Can I build another me? The Pebble in my Pocket, The Street Beneath my Feet, The Little Pebble, Stone Girl Bone Girl, The Dark, The Night Box, Magnet Max, The Lost Thing, Float,		Y4 - Sparrow Girl, The Promise, The Lorax, Wolves, Demon Dentist, Gut Garden, The Rhythm of the Rain, Water Dance, Sonam and the Silence, What sound is Morning? The Wild Robot, Until I met Dudley Y5 - Giant, Beetle Boy, Hair in Funny Places, Maia and what Matters, You're only old once, Nine months, Itch, Once Upon a Star, When the Stars Come Out, Curiosity, The Skies Above our Eyes, Cosmic, The Tin Snail, Newton's Rainbow. Y6 - The Wonder Garden, The Bubble Boy, The Fastest Boy in the World, , Molliebird, Origin of Species, Moth, One Smart Fish, Our Family Tree, I used to be a Fish, The Visitor, Shadow, Energy Island, Blackout, Wildspark.		
Experiences	The Deep Teddy Bear's Hospital Yorkshire Wildlife Park National Railway Museum Den Building	Hull Street Life Museum National Science and Media Museum (Magna 2023) Make and test a vehicle Yorkshire Air Museum visit		Residential to Robinhood's Bay St Nick's Nature Reserve Science/Engineering Workshop (Astrocampus/Robotics) Visit to London London		
Diversity	EY Y1 - Jane Goodall A Scientist Just Like Me	Y2 Rachel Carson, Jane Goodall, Charles Macintosh Y3 - Mary Anning, George Washington Carver, Jane Goodall, Marie Curie, Albert Einstien A Scientist Just Like Me		Y4 Jane Goodall, Steve Irwin, Albert Einstien, Alan Turing Y5 Sir Isaac Newton, Sir David Atinborough, Beatrix Potter, Jane Goodall, Albert Einstien, Alan Turing Y6 Charles Darwin, Jane Goodall, Alexander Fleming, Rosalind Franklin, Stephen Hawkins, Albert Einstien, Alan Turing A Scientist Just Like Me		
Long Term Planning Links	Autumn term: Materials Spring Term: Animals, including Humans Summer Term: Plants All year: Seasonal Changes	Autumn Term: Plants Spring Term: Materials and their uses	Autumn Term: Forces and Magnets Spring Term 1: Rocks	Autumn Term 1: Electricity Autumn Term 2: Sound	Autumn Term 1: Earth and Space Autumn Term 2: Forces	Autumn Term 1: Light Autumn Term 2: Electricity

		Summer Term 1: Animals, including humans Summer Term 2: Habitats	Spring Term 2: Animals, including humans Summer Term 1: Light Summer Term 2: Plants	Spring Term: States of Matter Summer Term: Living Things, Animals, including humans	Spring Term: Properties and Changes of Materials Summer Term: Living Things, Animals and Sex Education	Spring Term: Evolution Summer Term: Living Things, Animals and Sex Education
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