William Stukeley C of E School
Science Curriculum Progression

Intent

It is our intention in Science to develop in all young people a lifelong curiosity and interest in the sciences. When planning for the science curriculum, we intend for children to have the opportunity, wherever possible, to learn through varied systematic investigations, leading to them being equipped for life to ask and answer scientific questions about the world around them. As children progress through the year groups, they build on their skills in working scientifically, as well as on their scientific knowledge, as they develop greater independence in planning and carrying out fair and comparative tests to answer a range of scientific questions. The Science scheme of work ensures that children have a varied, progressive and well-mapped-out science curriculum that provides the opportunity for progression across the full breadth of the science national curriculum for KS1 and KS2.

Implementation

The acquisition of key scientific knowledge is an integral part of our science lessons. Displayed and given use of vocabulary enable children to learn and retain the important, useful and powerful vocabulary and knowledge contained within each unit. The progression of skills for working scientifically are developed through the year groups and scientific enquiry skills are of key importance within lessons. The progression of these skills is set out in this document. Each lesson has a clear focus. Scientific knowledge and enquiry skills are developed with increasing depth and challenge as children move through the year groups. They complete investigations and hands-on activities while gaining the scientific knowledge for each unit. Interwoven into the teaching sequence are key assessment questions, identified in lesson plans. These allow teachers to assess children's levels of understanding at various points in the lesson. They also enable opportunities to recap concepts where necessary. The sequence of lessons helps to embed scientific knowledge and skills, with each lesson building on previous learning. There is also the opportunity to regularly review and evaluate children's understanding. Activities are effectively differentiated so that all children have an appropriate level of support and challenge. Our detailed lesson plans include adult guidance to ensure that teachers are equipped with secure scientific subject knowledge, enabling them to deliver high-quality teaching and learning opportunities while making them aware of possible scientific misconceptions.

Impact

In Science, progress is measured through a child's ability to know more, remember more and explain more. This can be measured in different ways in our units. The use of key questions ensures opportunities are built into the lesson for ongoing assessment. Attainment and progress can be measured across the school using assessment spreadsheets. The impact of using the full range of resources included in the science unit will also be seen across the school with an increase in the profile of science. The learning environment across the school will be more consistent with science technical vocabulary displayed, spoken and used by all learners. Whole-school and parental engagement will be improved through the use of science-specific home learning. Children who feel confident in their science knowledge and enquiry skills will be excited about science, show that they are actively curious to learn more and will see the relevance of what they learn in science lessons to real-life situations and also the importance of science in the real world.

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Scientific Enquiry	EYFS	***KS1***	**LKS2**	**UKS2**
Key areas of progression in working scientifically – in detail	**Understanding the World (The World)** **ELG,** Development Matters Statements-Rec 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. Describe what they see, hear and feel whilst outside. DM Statements-Rec	During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: •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.	During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: •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	During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: •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.

			scientific ideas and processes; •using straightforward scientific evidence to answer questions or to support their findings.	
Asking Questions and Carrying Out Fair and Comparative Tests	Contributing to class investigations: <u>With adult support</u> the children will a) begin to explore the world around them and think about / discuss questions about how and why things happen. b) The children will follow suggestions of ways to answer simple scientific questions. e.g. do we need to water seeds to make them grow? What will happen to an ice cube if we take it out of the freezer and place it on the window sill indoors/ the window sill outdoors/ the radiator? c) carry out simple practical tests, using simple equipment;	Asking simple questions and recognising that they can be answered in different ways. Performing simple tests, Children can: a explore the world around them, leading them to ask some simple scientific questions about how and why things happen; b begin to recognise ways in which they might answer scientific questions; c ask people questions and use simple secondary sources to find answers; d carry out simple practical tests, using simple equipment; e experience different types of scientific enquiries, including practical activities; talk about the aim of scientific tests they are working on.	Asking relevant questions and using different types of scientific enquiries to answer them. Setting up simple practical enquiries, comparative and fair tests. Children can: a start to raise their own relevant questions about the world around them in response to a range of scientific experiences; b start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions; c recognise when a fair test is necessary; d help decide how to set up a fair test, making decisions about what observations to make, how long to make them for and the type of simple equipment that might be used; set up and carry out simple comparative and fair tests.	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. Children can: a with growing independence, raise their own relevant questions about the world around them in response to a range of scientific experiences; b with increasing independence, make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions; c explore and talk about their ideas, raising different kinds of scientific questions; d ask their own questions about scientific phenomena; e select and plan the most appropriate type of scientific enquiry to use to answer scientific questions; f make their own decisions about what observations to make, what measurements to use and how long to make them for, and whether to repeat them;

				g plan, set up and carry out comparative and fair tests to answer questions, including recognising and controlling variables where necessary; h use their test results to identify when further tests and observations may be needed; i use test results to make predictions for further tests.
Observing and Measuring Changes	With adult support the children will a) observe the natural and human constructed world around them. b) Observe changes over time. c) Use simple measures and equipment to help them observe carefully. (magnifying glasses, viewers, timers, digital cameras/ ipads)	Observing closely, using simple equipment. Children can: a observe the natural and humanly constructed world around them; b observe changes over time; c use simple measurements and equipment; make careful observations, sometimes using equipment to help them observe carefully.	Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Children can: a make systematic and careful observations; b observe changes over time; c use a range of equipment, including thermometers and data loggers; d ask their own questions about what they observe; where appropriate, take accurate measurements using standard units using a range of equipment.	Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Children can: a choose the most appropriate equipment to make measurements and explain how to use it accurately; b take measurements using a range of scientific equipment with increasing accuracy and precision; c make careful and focused observations; know the importance of taking repeat readings and take repeat readings where appropriate.
Identifying, Classifying, Recording and Presenting Data	With adult support begin to record observations. a) Take photographs. b) Complete simple observation records- eg minibeast tick list, contribute to class	Identifying and classifying. Gathering and recording data to help in answering questions. Children can: a use simple features to compare objects, materials and living things;	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.	Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Children can: a independently group, classify

	pictograms, block diagrams and tally charts.	b decide how to sort and classify objects into simple groups with some help; c record and communicate findings in a range of ways with support; sort, group, gather and record data in a variety of ways to help in answering questions such as in simple sorting diagrams, pictograms, tally charts, block diagrams and simple tables.	Children can: a talk about criteria for grouping, sorting and classifying; b group and classify things; c collect data from their own observations and measurements; d present data in a variety of ways to help in answering questions; e use, read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge; record findings using scientific language, drawings, labelled diagrams, keys, bar charts and tables.	and describe living things and materials; b use and develop keys and other information records to identify, classify and describe living things and materials; c decide how to record data from a choice of familiar approaches; record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar graphs and line graphs.
Drawing Conclusions, Noticing Patterns and Presenting Findings	<u>With adult support</u> the children will a) talk about what they observe. b) With encouragement begin to suggest why they think things happen.	Using their observations and ideas to suggest answers to questions. Children can: • notice links between cause and effect with support; • begin to notice patterns and relationships with support; • begin to draw simple conclusions; • identify and discuss differences between their results; • use simple and scientific language; • read and spell scientific	Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Children can: • draw simple conclusions from their results; • make predictions; • suggest improvements to investigations;	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. Children can: • notice patterns; • draw conclusions based in their data and observations; • use their scientific knowledge and understanding to explain their findings; • read, spell and pronounce

		vocabulary at a level consistent with their increasing word reading and spelling knowledge at key stage 1; talk about their findings to a variety of audiences in a variety of ways.	• raise further questions which could be investigated; • first talk about, and then go on to write about, what they have found out; report and present their results and conclusions to others in written and oral forms with increasing confidence.	scientific vocabulary correctly; • identify patterns that might be found in the natural environment; • look for different causal relationships in their data; • discuss the degree of trust they can have in a set of results; independently report and present their conclusions to others in oral and written forms.
Using Scientific Evidence and Secondary Sources of Information			Identifying differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions or to support their findings. Children can: a make links between their own science results and other scientific evidence; b use straightforward scientific evidence to answer questions or support their findings; c identify similarities, differences, patterns and changes relating to simple scientific ideas and processes; recognise when and how secondary sources might help them to answer questions that cannot be answered	Identifying scientific evidence that has been used to support or refute ideas or arguments. Children can: a use primary and secondary sources evidence to justify ideas; b identify evidence that refutes or supports their ideas; c recognise where secondary sources will be most useful to research ideas and begin to separate opinion from fact; d use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas; talk about how scientific ideas have developed over time.

			through practical investigations.	
Vocabulary	**Materials**: wood, plastic, glass, metal, water, rock, object, common, same, describe hard, soft, stretchy, stiff, shiny, dull, rough, smooth, bendy, not bendy, waterproof, not waterproof, sort, group, compare. **Seasonal Changes:** Seasons, autumn, winter, spring, summer, month, leaves, conkers, conker husks, acorns, seeds, pine cones, blackberries, hibernate, hibernation, day length, day, night, blossom, buds, bluebells, daffodils, dandelions, bees, frogspawn, tadpoles, lambs, safe, safety, sun cream, sunglasses, sun hat, shade, water, hydrated, dehydrated, protect, weather, rain, wind, snow, sun, storm, ice, frozen, temperature, hot cold, warm, cool. **Plants:** bean, plant, water, grow, soil, sunlight, wild, weed, garden, seeds, flower, roots, leaves, petals, stem, trunk, branches, seed, bulb, germinate, evergreen, deciduous, sunny, fruit magnifying glass, viewer **Animals including humans:** Mammals, birds, reptiles, amphibians, egg, spawn, pregnancy, chick, hatchling, tadpole, adult, baby, toddler, child, teenager, adult, elderly,	**Materials (**1) wood, plastic, glass, metal, water, rock, object, common, same, describe, properties, hard, soft, stretchy, stiff, shiny, dull, rough, smooth, bendy, not bendy, waterproof, not waterproof, absorbent, not absorbent, opaque, transparent, behave, test, record, Investigation, prediction, predict, watch, test, record, sensible, results, decision, sort, group, compare **Seasonal Changes (1)** Seasons, autumn, winter, spring, event, summer, month, weather, observe, observations, data, record, weather, symbol, temperature, rainfall, wind direction, thermometer, rain, water, gauge, weather vane, signs, record, leaves, conkers, conker husks, acorns, seeds, pine cones, hydrated, sun, dehydrated, blackberries, north, south, east, west, millimetres (mm), hot, cope, safety, degrees, shade, centigrade, adaption, hat, rays, cope, survive, hibernate, migrate, migration, protect, cope, hibernation, day length, night, blossom, buds, bluebells, bees, lambs, daffodils, dandelions, frogspawn, tadpoles, sun cream, sunglasses **Plants (1)** bean, plant, water, grow, soil, sunlight, wild, weed, common, tally, garden, seeds, flower, magnifying glass, roots, leaves, petals, stem,	**Animals including humans (3)** Plants, animals, humans, food, nutrition, food groups, Eatwell Guide, nutrients, vitamins, minerals, protein, carbohydrates, fibre, water, fats, repair, digest, saturated fats, unsaturated fats, carnivores, omnivores, herbivores, skeleton, endoskeleton, exoskeleton, hydrostatic skeleton, invertebrate, vertebrate, skeleton, skull, cranium, rib, costal, rib cage, thoracic cage, collarbone, clavicle, ankle, talus, funny bone/ upper arm bone, humerus bone, leg bone (upper), femur, leg bones (lower), tibia, fibula, finger bones, phalanges, hand bones, metacarpals, shoulder blade, scapula, jaw, mandible, backbone, vertebrae, wrist, carpals, hips, pelvis, knee cap, patella, foot bones, metatarsals, lower arm bones, radius, ulna, toe bones, breastbone, sternum, protect, move, movement, support, skeleton, joints, hinge joint, ball and socket joint, gliding joint, muscles, pairs, contract, relax, contracted, relaxed, voluntary, involuntary **Plants (3)** roots, stem, trunk, leaves, flowers, anchor, nutrients, transport, seeds, carbon dioxide, sunlight, absorb, air, light, water, nutrients, soil, investigate, explore, predict, observe, observation, prediction, conclusion, transport, stem,	**Animals including humans (5)** human, egg, sperm, foetus, baby, toddler, child, teenager, adult, old age, development, growth, infancy, childhood, adulthood, adolescence, prenatal, data, tables, bar graphs, line graphs, present, findings, information, baby, growth, height, mass, puberty, changes, breasts, pubic hair, hips, facial hair, body hair, genitals, muscular development, menstruation, old age, human, development, growth rate, decrease, changes, compare, gestation, growth, foetus, animals, vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, protozoa, coelenterates, flatworms, annelid, worms, echinoderms, molluscs, arthropods, arachnids, crustaceans, insects, myriapods, life expectancy, gestation, animals, variable, association, causal relationship, correlation, positive, negative **Earth and Space (5)** Earth, Sun, Moon, sphere, circle, evidence, flat, round, Star, sun, planet, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, orbit, rotate, heliocentric, geocentric, day, night, rotate, axis, shadow, time, countries, daylight, night time, dark,

	basic needs, survive, water, food, air, lungs, gills, shelter, physical activity, heart, muscles, calories, clean, hygiene, germs.	bulb, evergreen, deciduous, sunny, fruit **Animals including humans (1)** **animals, birds, reptiles, mammals, amphibians, fish, observe, identify.** **Plants (2)** roots, stem, leaves, flower, trunk, branches, observation, diagram, seed, bulb, germinate, embryo, stem, tunic, scales, bud, sprout, compare, comparative test, life cycle, life process, seedling, compare, prediction, germinate, grow, compare, prediction, table, bar chart. **Living Things and Habitats (2)** Life process, living, non-living, dead, never alive, movement, respiration, sensitivity, growth, reproduction, excretion, nutrition, conditions, survive, urban, woodland, pond, coast, coastal, minibeast, microhabitat, enquiry, survey, pictogram, habitat, research, conditions, ocean, tropical rainforest, arctic, desert, adaptation, adapt, adaptation, depend, dependency, food chain, consumer, producer, predator, prey, herbivore, carnivore, omnivore **Materials (2)** Identify, materials, wood, plastic, glass, metal, rock, brick, paper, cardboard, uses, used, properties, hard, soft, stretchy, stiff, shiny, dull, rough, smooth, bendy, not bendy,	evaporate, compare, temperature, leaves, flower, petals, sepal, stamen, anther, filament, stigma, style, ovary, ovule, pollen tube, pollen, pollination, fertilisation, dispersal, germination, life cycle, stages **Light (3)** light, source, dark, reflect, see, illuminate, visible, mirror, smooth, shiny, rays, rough, scatter, reverse, beam, sun, beneficial, dangerous, glare, bright, damage, UV light, UV rating, visible spectrum, pupil, retina, protect, direct, sunglasses, hat, brim, energy, beam, ray, travel, straight, opaque, translucent, transparent, block, shadow, observe, pattern, size, distance, change **Forces and Magnets (3)** force, push, pull, friction, surface, magnet, magnetic, attract, magnetic field, attract, pole, north, south, attract, repel, compass, direction **Sound (4)** sound, vibration, volume, amplitude, loud, quiet, travel, wave, particles, ear, high, low, pitch, distance, telephone, transmit, vibrate, soundproof, absorb **Rocks (3)** rocks, igneous, sedimentary,	distance, light, face **Changing Materials (5)** material, property, magnetic, hard, product, transparent, flexible, permeable, thermal, conductor, insulator, heat, variable, electric, resistance, circuit, dissolve, soluble, insoluble, liquid, solid, separate, mixture, solution, suspension, soluble, insoluble, dissolve, evaporate, filter, sieve, magnet, attract, particles, reversible, irreversible, physical, chemical, reaction, reactant, **Living Things and Habitats (5)** sexual, asexual, reproduction, gamete, cell, pollen, ovule, fusion, fertilisation, pollination, cuttings, roots, male, female, sperm, ovum, penis, vagina, fertilise, pregnancy, gestation, monotreme, marsupial, young, family tree, chimpanzee, Jane Goodall, life cycle, endangered, extinct, metamorphosis, amphibian, transform, insect, larvae, pupa, nymph, egg, yolk, albumen, embryo, bird, mammal, plant, amphibian, reproduce **Forces (5)** force, push, pull, gravity, air resistance, water resistance, friction, gravity, Isaac Newton, newton, newton meter, weight, mass, air resistance, Galileo Galilei, parachute, prediction, investigation, measure, observe, variables, results, streamline, brake, prediction, investigation, mechanism, lever, gear, cog, pulley, machine

		absorbent, not absorbent, waterproof, not waterproof, transparent, opaque, observations, record, classify, group, similar, safe, unusual, compare, suitability, suitable, unsuitable, purpose, change, squashing, bending, twisting, stretching, squash, bend, twist, stretch, recycle, recycling, reuse, biodegradable, environment, landfill site, recycling depot, shredded, melted, pellets, raw materials, greenhouse gases, Invent, Macadamisation, Macadam road, patent, Parliament, compensated, royalties, knighthood, tar, tarmacadam, tarmac. **Environment (2)** Climate change, atmosphere, global warming, greenhouse gas, drought, flooding, hurricane, storm, sea level, sea ice, rubbish, waste, litter, incineration, landfill, reduce, reuse, recycle, energy, power, electricity, coal, oil, gas, petrol, diesel, fossil fuel, non-renewable, renewable, solar, wind, geothermal, biomass, wave, rainforest, tropical, jungle, equator, mammal, reptile, amphibian, bird, water conservation, ocean, fresh water, salt water, groundwater, endangered, extinct. **Animals including humans (2)** Mammals, birds, reptiles, amphibians, womb, egg, spawn, pregnancy, chick, hatchling, tadpole, adult, baby, toddler, child, teenager, adult, elderly, basic	metamorphic, form, formation, volcano, sea, seabed, changes, compare, types, natural, human-made, strata, anthropic, group, properties, permeable, impermeable, hard, soft, split, durable, buoyancy, fossil, sedimentary, fossilisation, animals, bones, chemical fossils, change, body fossils, trace fossils, layers, pressure, coprolite, trackways, footprints, Mary Anning, fossils, seaside, ichthyosaur, trace fossils, coprolite, dinosaurs, Jurassic, Lyme Regis, beach, poverty, scientists, William Buckland, soil, formation, formed, organic matter, animals, top soil, sub soil, base rock, additions, losses, translocations, transformations, permeability, semi-permeable. **Animals including humans (4)** mouth, tongue, teeth, oesophagus, stomach, duodenum, small intestine, large intestine, pancreas, liver, rectum, anus, salivary glands, gallbladder, digestion, digest, digestive system, teeth, incisors, canines, molars, premolars, humans, animals, tooth, decay, questions, scientific, non-scientific, practical enquiries, comparative tests, fair tests, variables, erode, erosion, test, practical enquiry, fair test, comparative test, time intervals, observe, record, scientific language,	**Animals including humans (6)** system, human, body, circulatory, circulation, skeletal, muscular, digestive, organs, parts, heart, blood vessels, aorta, atrium, ventricle, artery, vein, pulmonary, superior vena cava, inferior, pulmonic, aortic valve, capillary, human, circulatory, organs, parts, heart, lungs, blood vessels, aorta, atrium, ventricle, artery, vein, pulmonary, superior vena cava, inferior, pulmonic, aortic valve, trachea, bronchus, bronchiole, diaphragms, air sacs, alveoli, capillary, functions, intercostal muscles and ribs, nutrients, nutrition, water, system, circulatory, digestive, skeletal, muscular, blood, blood vessels, heart, lungs, stomach, gall bladder, liver, small intestine, large intestine, pancreas, liver, kidneys, rectum, bladder, healthy, lifestyle, diet, exercise, nutrition, nutrients, food, water, cells, body, human, organs, vitamins, minerals, protein, fats, carbohydrates, water, fibre, exercise, fitness, healthy, unhealthy, types, pulse, heart rate, investigation, results, record, table, graph, chart, report, degrees of trust, impact, evidence, smoking, drugs, legal, illegal, alcohol, heart, stomach, liver, kidneys, lungs, air sacs (alveoli), brain, mouth, fingers, toes, blood vessels **Light (6)** Light, source, travel, straight line, waves, ray, beam, wave, photon, energy,

		needs, survive, water, food, air, lungs, gills, shelter, basic needs, survive, water, food, air, lungs, gills, shelter, exercise, physical activity, heart, muscles, calories, clean, hygiene, germs.	conclusion, prediction, questions, food chain, predator, consumer, prey, producer, construct, interpret, diagram **State of Matter (4)** solid, liquid, gas, particles, state, material, properties, gas, carbon dioxide, state, matter, material, weight, mass, solid, liquid, particles, freeze, thermometer, melt, temperature, condense, evaporate, process, state, water, ice, water vapour, evaporation, particles, liquid, gas, weight, dry, energy, heat, condensation, precipitation, collection, clouds, rain, sleet, hail, snow. **Electricity (4)** electricity, charge, flow, current, generate, power, appliance, energy, source, renewable, non-renewable, mains, batteries, safety, danger, precautions, home, school, electrical current, battery, cell(s), battery holder, crocodile clips, wires, bulb, bulb holder, test, visualise, complete, incomplete, circuit, conductor, insulator, conduct, insulate, materials, observe, electrons, free electrons, switch, buzzer, motor, slide switch, push button switch, pull switch, selector switch, key switch, paddle switch, toggle switch, dimmer switch **Sound (4)**	vacuum, reflection, angle, incidence, normal, periscope, refraction, bend, lens, focus, focal point, transparent, refract, spectrum, prism, wavelength, colour, visible, transparent, rainbow, filter, colour, light, see, reflect, absorb, shadow, light, source, opaque, size, distance, change, tilt, cast **Evolution and Inheritance (6)** inheritance, animals, plants, humans, parent, offspring, similarities, differences, variation, characteristics, adaptation, environment, habitat, DNA, genes, adaptive traits, mutation, replication, accidental, evolution, inheritance, theory of evolution, fossil, fossil records, evidence, complete, incomplete, ancestor, common ancestor, human, adaptation, apes, mammals, homo sapiens, family, genus, species, taxonomy, human intervention, selective breeding, environment, inherited traits, genetic, modification **Electricity (6)** electricity, Thomas Edison, Nikola Tesla, Alessandro Volta, Michael Faraday, home, alternating current, direct current, battery, cell, bulb, wires, switch, motor, buzzer, scientific, informal, circuit, diagram, voltage, circuit, brightness, loudness, increase, decrease, investigation, plan, fair test, comparative test, practical enquiry, length **Living things and Habitats (6)** classify, sort, group, similarities,

			sound, vibration, volume, amplitude, loud, quiet, travel, wave, particles, ear, high, low, pitch, distance, telephone, transmit, vibrate, soundproof, absorb **Living Things and Habitats (4)** organism, sort, group, criteria, Venn diagram, Carroll diagram, variation, classification, vertebrates, invertebrates, specimen, invertebrate, thorax, abdomen, antenna, segmented, wing case, mandible, proboscis, prolegs, characteristic, key, habitat, environment, wildlife, change, danger, endangered, extinct, conservation	compare, differences, Carl Linnaeus, Linnaean, classification, standard, domain, kingdom, phylum, class, order, family, genus, species, Microorganism, fungus, bacteria, virus, microscopic, mould, cell, eukaryote, nucleus, DNA, organism, species, vertebrates, invertebrates, mammals, birds, amphibians, reptiles, fish, insects, arachnids, molluscs, crustaceans, annelids, plants, flowering ,non-flowering