



Where

CURIOSITY

HATCHES,

creativity

takes

flight

and

learning

SOARS

TO A SKY OF

opportunity.

Vocabulary progression

Science

NOTE: Words which are identified as especially important for pupils to understand to develop an understanding of the substantive concepts are highlighted in pink.

Year 1

Disciplinary knowledge	Science Knowledge
Science enquiry	Seasonal Changes
<ul style="list-style-type: none"> • observe • predict • compare • identify • describe • test 	season, spring, summer, autumn, winter, autumn, hibernate, weather, protect, harvest, winter, weather, frost, icicle, temperature, spring, daylight, changes, grow, chick, summer, nectar, sun protection, bloom, heatwave, rainfall, hibernation, rain gauge, temperature, protect
	Everyday Materials
	material, fabric, wood, plastic, metal, object, glass, rock, brick, material, property, opaque, transparent, dull, stiff, natural, man-made, factory, rubber, polyester, predict, float, sink, submerged, heavy, absorbent, properties, waterproof, bendy, materials, solid, strong, brick, clay, wind, waterproof, absorbent, non-absorbent, roof, slate, transparent, opaque, suitable, window pane, window frame, fabric, furniture, cotton, mattress, soft, wool, weather, jumper, suitable, waterproof, evaluate, material, properties, tile, garden
	Animals Including Humans
Humans - head, body, skeleton, limb, joint, brain, eyelash, eye, sight, pupil, sound, ear, sign language, vibration, deafness, tongue, mouth, taste, flavour, sweet, touch, fingertips, skin, organ, brain, smell, odour, nose, nostril, nose hair Animals - fish, amphibian, reptile, mammal, bird, feather, warm-blooded, characteristic, backbone, hatchling, amphibian, reptile, gills, scale, cold-blooded, herbivore, carnivore, omnivore, predator, canines, pet, wild, shelter, veterinary, natural, similarities, differences, compare, unsuitable, climate	
Plants	
seed, plant, tree, soil, predict, stem, petal, leaf, root, flower, environment, weed, daisy, dandelion, wild, deciduous, evergreen, seasons, branch, bush, supermarket, fruit, vegetable, farm, tractor, growth, seedling, young plant, adult plant, observe,	

Year 2

Disciplinary knowledge	Science Knowledge
Science enquiry	Animals Including Humans
<ul style="list-style-type: none"> • investigate 	Humans - survival, shelter, nutrition, oxygen, essential, vital, non-essential, survive, grow, healthy, protein, carbohydrate, dairy, vitamins, calcium, fat, balanced diet, nutrients, fresh food, pre-cooked,

<ul style="list-style-type: none"> • experiment • method • results • compare • measure 	<p>processed food, exercise, strength, flexibility, balance, coordination, hygiene, prevent, germs, bacteria, virus, life cycle, grow, survive, independent, adult, foetus, womb, helpless, toddler, develop</p> <p>Animals - offspring, inherit, gene, resemble, differences, reproduction, hatchling, chick, bar chart, predict, caterpillar, transformation, larva, chrysalis, metamorphosis, frog, amphibian, frogspawn, tadpole, froglet</p>
<p>Everyday Materials</p>	
<p>material, property, suitable, object, brick, bridge, triangle, obstacle, structure, construction, stretchy, elastic, floppy, hinder, limit, bend, twist, squash, stretch, force, mackintosh, protective, fluorescent, safety, waterproof, John McAdam, merchant, bound, highway, road</p>	
<p>Plants</p>	
<p>seed, bulb, grow, seedling, compare, predict, investigate, experiment, method, conditions, healthily, temperature, nutrients, energy, pollen, life cycle, germination, reproduce, seedling, energy, results, greenhouse, thrive, healthy, forest, desert, results, greenhouse</p>	
<p>Living things and their habitats</p>	
<p>senses, nutrition, reproduce, excrete, respire, habitat, microhabitat, fungi, survive, shelter, antennae, suitable, condition, colony, insect, producer, consumer, herbivore, carnivore, omnivore, food chain, life cycle, nutrients, rot, caterpillar, automated, frozen food, forklift truck, refrigerated lorry, canned, habitat, microhabitat, organism, environment, mate, rainforest, moisture, extinct, climate, endangered, biodiversity, deforestation, poaching, pollution, rainforest, plankton, ocean, ecosystem, coral reef, trench, Antarctic, Arctic, caribou, narwhal, tundra, earthworm, desert, lizard, cactus, pond</p>	

Year 3

Disciplinary knowledge	Science Knowledge
Science enquiry	Animals Including Humans
<ul style="list-style-type: none"> • scientific investigation • fair test • variable • record • data • evidence • conclusion 	<p>nutrition, carbohydrate, protein, vitamin, mineral, nutrition label, portion, energy, balanced, diet, vertebrate, invertebrate, endoskeleton, exoskeleton, hydrostatic skeleton, humerus, ulna, radius, tibia, fibular, endoskeleton, vertebrate, skull, rib cage, spine, muscle, contract, hamstrings, biceps, diaphragm</p>
Rocks	
<p>igneous rocks, intrusive igneous rock, extrusive igneous rock, crystals, magma, sedimentary rock, metamorphic rock, limestone, marble, sandstone, weathering, chemical weathering, physical weathering, biological weathering, acid rain, appearance, texture, submerged, erosion, receding, fossil, extinct, sediment, embedded, amber, decompose, fragments, clay soil, chalky soil, sandy soil</p>	
Forces	

<ul style="list-style-type: none"> prediction 	force, contact force, non-contact forces, air resistance, friction, motion, surface, resistance, texture, tilt, magnet, attract, repel, bar magnet, horseshoe magnet, magnetism, magnetic, magnetic field, iron, steel, non-contact forces, magnetism, attract, non-magnetic materials, recycle, compass, magnetic needle, magnetic north, direction, orienteering
	Light
	light, source, natural, artificial, reflect, vitamin D, ultraviolet rays, sunburn, exposure, protection, fluorescent, high visibility, reflective, surface, materials, shadow, opaque, sundial, rays, blocks, position, cast, opposite, direction, length, size, shape, closer, further, puppet
	Plants
	nutrients, fertiliser, thrive, investigation, prediction, energy, oxygen, function, photosynthesis, carbon dioxide, anchor, tube, absorb, root hairs, transpiration, anther, stigma, stamen, ovary, reproduce, pollination, pollen, nectar, seed dispersal, pollinator, conclusion, observe, diagram, comparison, vary

Year 4

Disciplinary knowledge	Science Knowledge
Science enquiry	Animals Including Humans
<ul style="list-style-type: none"> classify identify criteria diagram explanation comparison 	Humans - digestive system, oesophagus, stomach, small intestine, large intestine, saliva, peristalsis, absorb, liver, gall bladder, incisors, canines, molars, jaw, gum, enamel, plaque, tooth decay, cavity, fluoride
	Animals - ecosystem, producer, consumer, prey, predator, food web, tundra, hide, interdependence, threatened
	Electricity
	electricity, batteries, mains electricity, appliance, plug socket, circuit, series circuit, component, cell, battery, wire, bulb, electrical conductor, electrical insulator, metal, copper, plastic, switch, control, complete circuit, incomplete circuit, non-renewable energy, renewable energy, wind turbines, solar panels, hydropower
	States of Matter
	matter, solid, liquid, gas, volume, particle, bond, arranged, cooled, heated, particle, melting, melting point, temperature, thermometer, freezing, reverse, boiling, sublimation, deposition, evaporation,

	condensation, absorb, water vapour, process, water cycle, precipitation, surface runoff, transpiration, groundwater
	Living things and their habitats
	habitat, microhabitat, conditions, adapted, camouflage, coastal, grassland, environment, climate, exposure, classify, characteristics, vertebrate, species, sub-groups, identify, criteria, classification keys, organism, adapted, region, features, colouring, blubber, ecosystem, oxygenised, flowering plant, non-flowering, plant, pond dipping
	Sound
	vibration, medium, waves, eardrum, signals, source, energy, particles, echo, vacuum, materials, reflect, absorb, insulate, defenders, volume, decibels, decibel metre, amplitude, power, pitch, high pitch, low pitch, instruments, orchestra, energy, particles, travel, sound source, fade

Year 5

Disciplinary knowledge	Science Knowledge
Science enquiry	Forces
<ul style="list-style-type: none"> • variable • control • fair test • systematically • evaluate • scientific diagram 	Sir Isaac Newton, gravity, astronomy, weight, mass, Galileo Galilei, air resistance, opposing, streamlined, up thrust, buoyant, sink, friction, resistance, lubricant, Newton meter, Newton, lever, load, pivot, fulcrum, pulley, mechanism, gear, mesh, rack and pinion, bevel gear,
	Properties and changes of materials
	Conductive, magnetic, durable, transparent, versatile, thermal, conduction, molecules, degrees Celsius (°C), insulator, hardness, force, iron, steel, stone, dissolve, solute, insoluble, soluble, solvent, solute, solvent, solution, substance, saturation, pure substance, mixture, filtering, sieving, evaporation, pure substance, solute, solvent, solution, evaporate, reversible, mixture, physical change, melting, evaporate, irreversible, chemical change, compare, effervescence, product, fair test, variable, control carriable, corrosion, rusting, combustion, fuel, oxygen, extinguish, smother, reaction, predict, acid, bicarbonate of soda, carbon dioxide
	space
	terrestrial planet, gas giant planets, Solar System, spherical, orbit, astronomy, heliocentric, geocentric, dwarf planet, orbit, axis, poles, season, hemisphere, orbit, sundial, time zone, gnomon, dial, shadow, moon phase, waxing, waning, eclipse, rocky planet, gas planet, moon, orbit, solar system

	Animal including humans
	Humans - foetus, dependent, adolescent, puberty, reproduce, gestation, pregnant, duration, extreme, breeding, womb, umbilical chord, embryo, trimester, midwife, growth spurt, childhood, motor skills, milk teeth, constant, adolescence, puberty, hormones, mood swing, develop, lifestyle, keratin, elasticity, cataracts, neurodegenerative
	Living things and their habitats
	reproduction, asexual, fertilisation, tuber, genes, pouch, mammary glands, placental mammal, monotreme mammal, marsupial, metamorphosis, caterpillar, amphibian, larva, pupa, egg, fledgling, egg tooth, hatch, embryo, documentary, naturalist, primatologist, endangered, natural sciences, living organism, reproduction, life cycle, vertebrate, warm-blooded

Year 6

Disciplinary knowledge	Science Knowledge
Science enquiry	Animals Including Humans
<ul style="list-style-type: none"> • classify • model • prototype • upscaled • analyse • conclude • fair test • control variable 	<p>Circulatory system, atrium, ventricle, vessel, valves, vessel, artery, vein, capillary, microscope, blood, plasma, platelet, white blood cell, red blood cell, absorb, diffusion, osmosis, concentration, nutrients, diet, exercise, heart rate, BPM, pulse, drug, painkiller, stimulant, depressant, hallucinogens</p>
	Evolution and inheritance
	<p>classify, microorganism, fern, living organism, conifer, kingdom, mrs gren, cell, multicellular, unicellular, Carl Linnaeus, classification, Latin, species, domain, microorganism, bacteria, fungi, virus, protozoa, plant, microscopic, fungi, mycelium, ecosystem, classify, microorganism, living organism, habitat, reproduction, offspring, characteristic, inherit, variation, environmental, adaptation, habitat, climate, nutrition, feature, nutrients, epiphytes, toxic, predators, pollinate, fossil, Mary Anning, Palaeontologist, ichthyosaurus, Jurassic coast, Charles Darwin, evolved, extinct, natural selection, theory, ancestor, tools, primate, Homo sapien, Neanderthal</p>
	Living things and their habitats
	<p>weather, climate, prevent, global warming, climate change, recycle, landfill, rubbish, biodegrade, council, net zero, renewable, non-renewable, greenhouse gases, emissions, industrial revolution, fossil fuel, coal, combustion, fuel, COP, sustainability, conference, pledge, subsidy, species, sensitive, natural disaster, habitat, vulnerable</p>

	Light
	light, eye, light source, symbol, scientific diagram, reflected, prediction, fair test, variable, table, periscope, angle, mirror, line of sight, utilise, shadow, block, opaque, transparent, translucent, plan, sun shade, real life problem, rotate, direction, optical, phenomena, disperse, spectrum, refraction
	Electricity
	component, circuit, circuit diagram, battery, cell, electricity, current, voltage, series circuit, brightness, blown, break, overload, filament, coil, output, variable, fair test, control, systematically, synchronised, insulative, conductor, contact, connection, high voltage, prototype, volts, upscaled, fan blade

EYFS

Disciplinary knowledge words	Science knowledge words
Science enquiry	Humans
<ul style="list-style-type: none"> • senses • change • push • pull • float • sink • safe • danger 	senses, eyes, sight, taste, touch, senses, hearing, sight, sound, yellow, smell, touch, taste, orange, slice, taste, senses, colour, sight, taste buds, arm, leg, chest, jump, move, hand, finger, feet, walk, run, eyes, nose, face, blink, colour, ears, mouth, hair, eyebrows, teeth, baby, food, grow, hair, teeth, freckles, gene, sibling, different, unique, trust, uncomfortable, police officer, stranger danger, stranger, 999, burn, cut, first aid, plaster, diet, exercise, tooth, healthy, fuel
	Animals
(These support early enquiry, observation, and cause-and-effect.)	fly, beetle, insect, ant, invertebrate, ladybird, spider, snail, honey, worm, sap, habitat, greenfly, food, toast, chicken, egg, lay, fox, chick, cow, milk, cream, cheese, butter, living, tree, adult, non living, young, pet, ocean, habitat, desert, farm, bird, nest, build, mud, grass, pig, horse, cow, goat, chicken, dinosaur, lizard, meteorite, museum, reptile
	Plants
	plant, seed, nutrients, soil, water, plant, soil, seed, stem, pink, sunlight, compost heap, weeds, garden, roots
	Space and Earth
	rain, ice, rainforest, cloud, river, wind, movement, air, rise, sail, snowflake, melt, snowman, cool, cold, rainbow, raindrop, yellow, arc, blue, Spring, Summer, warm, bird, Sun, Autumn, Winter, snow, bark,

	season, planet, Solar System, gas planet, rocky planet, Sun, firework, launch, rocket, travel, Space, pancakes, lemon, scales, sugar, fry, noodles, wheat, flour, grain, bread, vegetable, cabbage, cauliflower, celery, radish, apple, orange, pear, strawberry, fruit
•	Materials and Chemicals
	non-living, car, toy, bike, scooter, change, solid, liquid, pan, metal, melt, freeze, cold, set, mould, sheep, fleece, shear, wool, ball, bucket, sand, sandcastle, sculpture, shovel, house, flat, semi-detached, terraced, radiator
	Machines
	gear, lever, mechanism, pulley, wheel and axle, crane, machine, trolley, wheel, wheelbarrow, car, bus, transport, bicycle, aeroplane, danger, electricity, energy, rule, safe, push, pull, press, suck, swing, sink, sea, float, boat, force
	Sound
	trumpet, reed, ripple, noise, vibration