



Progression in Science Vocabulary

Science: Substantive Knowledge Vocabulary

Note: Vocabulary lists based on PLAN Progression in Vocabulary. Words highlighted '**bold**' are on the knowledge organiser glossaries. Remaining vocabulary still requires teaching.

Nursery (Science vocabulary identified within a wider topic of work)			
Changes All Around – Weather	Amazing Animals - Floating and Sinking		Grow With Us - Plants
Sun, rain, wind, cloud, snow, hot, cold, weather, names of clothing items linked to weather (coat, hat, scarf, gloves, wellies, t-shirt, shorts)	floating, sinking, cup, sponge, stone, spoon, heavy, light, under, on		plant, flower, grow, water
Reception (Science vocabulary identified within a wider topic of work)			
Changes All Around - Seasons	Amazing Animals – Changing States		Grow With Us - Habitats
season, Spring, Summer, Autumn, Winter, day, night, weather	solid, liquid, ice, iceberg, water, melting, freezing, heated, frozen, hot, cold		caterpillar, butterfly, tadpole, frog, life cycle, growing, habitat
Year 1			
Biology: Plants	Chemistry: Everyday Materials	Physics: Seasonal Changes	Biology: Animals, Including Humans
plant, deciduous, evergreen, trunk, root , branch, twig, stem , seed, blossom, wild plants, garden plants, weeds, flowers , fruit , bulb , leaf / leaves	rough , property , smooth , material , object, hard, soft, stretchy, shiny, dull , waterproof , bendy, stiff, absorbant	season, spring , summer , autumn , winter , day, night, cold, sleet, hail, snow, weather, weather forecast, weather symbols	mammal , fish , reptile , bird , amphibian , herbivore, carnivore, omnivore, nocturnal, human , pet, senses
Year 2			
Biology: Plants	Biology: Living Things and Their Habitats	Chemistry: Everyday Materials	Biology: Animals, Including Humans
plant, roots, bulb, seeds , blossom , stem, trunk , leaves, woodland , deciduous , evergreen	living , non-living , dead , animal , habitat , food chain , prey, predator, carnivore, herbivore, omnivore, human, micro-habitat	material, properties, squashing, rigid , bending / flexible , twisting, brittle , stretching, hard, soft, rough, smooth, waterproof, absorbent, transparent , translucent , opaque , stiff	healthy , diet , exercise , nutrients , hygiene , vegetables , fruit , carbohydrates , meat , dairy , grow, sleep, off-spring

Year 3				
Biology: Plants	Chemistry: Rocks and Fossils	Physics: Forces and Magnets	Physics: Light	Biology: Animals, Including Humans
leaves, photosynthesis , deciduous, evergreen, seed, seedling , seasonal change , roots, pollen, pollination , seed formation, seed dispersal , germination, flowers	rock / stone, pebble, boulder, grain, crystals, layers, organic matter, permeable (absorbs water) , impermeable (waterproof), soil, fossil , sedimentary rocks, metamorphic rocks, magma, igneous rocks	forces, push , pull , contact force, non-contact force, magnet (bar, button, ring, horseshoe), attract , repel , magnetic , magnetic strength, pole , iron, surface, friction	light , light source , dark/darkness , transparent , translucent, opaque, shiny surface , matt surface , shadow , reflect, mirror , sunlight , dangerous	nutrition, nutrients, carbohydrates , sugars , protein , vitamins , minerals , fibre, fat, water, skeleton, bones , muscles , skull, ribs, spine, joints
Year 4				
Biology: Living Things and Their Habitats	Chemistry: States of Matter	Physics: Sound	Physics: Electricity	Biology: Animals, Including Humans
classification key , leaf arrangement, leaf edge, simple leaves, compound leaves, leaf veins, environment , habitat , human impact , species , life process, seasonal change, hibernate , migration Vertebrate, Invertebrate, Warm-Blooded, Cold-Blooded, Flowering Plant, Non-Flowering Plant	solid , liquid , gas , state change, melting , freezing , melting point, boiling point , evaporation , condensation , temperature, water cycle , water vapour, precipitation , surface run-off	sound , source , vibrate / vibration, travel, pitch (high/low) , volume , faint, loud, insulation , ear, sound wave , frequency	electricity , electrical appliance/device , mains, plug, electrical circuit , complete circuit, component, cell/battery , positive/negative, connect/connections, loose connection, short circuit, crocodile clip, bulb , switch , buzzer , electrical conductor , electrical insulator	digestive system, digestion , mouth, teeth, saliva , oesophagus , stomach , small intestine , pancreas , nutrients, large intestine , rectum , anus , prey, teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, food chain, organ, consumer

Year 5				
Biology: Living Things and Their Habitats	Chemistry: Properties and Changes of Materials	Physics: Forces	Physics: Earth and Space	Biology: Animals, Including Humans
life-cycle, reproduce, sexual reproduction, sperm, egg, fertilises, live young, metamorphosis, plantlets, runners, asexual reproduction, bulbs, cuttings, pollination	thermal conductor, thermal insulator, electrical conductor, electrical insulator, state of matter (solid, liquid, gas), object, material, property (hard / soft, transparent, translucent, opaque, permeable, impermeable, flexible, still, malleable, smooth, rough), mixture, dissolve, solution, filter, sieve , reversible change, irreversible change, burning, rusting, change of state, solubility	force, gravity , Earth, air resistance, water resistance, simple machines, friction, levers, pulleys, gears, parachute, mechanisms	phases, rotation, orbit, planets, seasons, star, hemisphere, moon, poles, space, reflect, solar system	life-cycle, reproduce, sexual reproduction, sperm, egg, live young, puberty, adolescence, foetus, infant, child, adult
Year 6				
Biology: Living Things and Their Habitats	Physics: Light	Physics: Electricity	Biology: Evolution and Inheritance	Biology: Animals, Including Humans
vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates , spiders (arachnids), insects, snails, worms, flowering plants, non-flowering plants , living things, environment, animals, classify / classification key, micro-organisms, species, fungi, monera, bacteria, Protista, plant	visible light rays, primary light source, secondary light source, dark/darkness , transparent, translucent, opaque, shiny surface, matt surface, shadow, reflect, straight lines, sunlight, dangerous, filters	electricity, series circuit, complete circuit, cell/battery, circuit diagram, volts/voltage, bulb, switch, buzzer, motor, electrical symbols , electrical conductor, electrical insulator, socket, plug, fuses, component	evolution, offspring, sexual reproduction, variation, suited, adaptation, inheritance, environment, characteristics, species, habitat, fossils, natural selection, DNA, organism, climate	heart, pulse (rate), pumps, blood, blood vessels, transported, lungs, oxygen, drugs, carbon dioxide, nutrients, water, muscles, cycle, circulatory system, diet, exercise

Science: Working Scientifically Vocabulary

EYFS: Nursery and Reception

look closely, observe, watch, touch, feel, smell, listen, same, different, compare, ask questions, record, sort, group

KS1: Years 1 and 2

observe, changes, patterns, grouping, sorting, compare, same, different, identify (name), measure, data, record results, drawing, picture, table, tally chart, present, pictogram, block chart, Venn diagram, ask questions, test, investigate, explore, equipment, resources, magnifying glass, hand lens, ruler, tape measure, metre stick, pipette, syringe, spoon, teaspoon, answer questions, interpret results, scientific enquiry, pattern seeking, comparative testing, observing over time, classifying, researching using secondary sources

Lower KS2: Years 3 and 4

practical work, fair testing, relationships, accurate, thermometer, data logger, stopwatch, timer, estimate, data, diagram, identification key, chart, bar chart, prediction, similarity, difference, evidence, information, findings, criteria, values, properties, characteristics, conclusion, explanation, reason, evaluate, improve

Upper KS2: Years 5 and 6

variables, independent variable, dependent variable, control variable, evidence, justify, argument (science), causal relationship, accuracy, precision, scatter graphs, bar graphs, line graphs, force meter

EYFS Additional Vocabulary (PLAN Progression Document) – not directly part of units of study:

Plants	
Nursery	Reception
plant, leaf, stem, branch, root, bark, flower, petal, seed, berry, fruit, vegetable, bulb, plant, hole, dig, water, weed, grow, shoot, die, dead, soil, names of plants they grow	tree, bush, herb, names of plants they see (Reception - Living things and their habitats)
Living Things and Their Habitats	
Nursery	Reception
natural, plant, animal, leaves, seeds, conkers, acorns, twigs, bark, shells, feathers, pebbles, stones, same, different, pattern plant, leaf, stem, branch, root, bark, flower, petal, seed, berry, fruit, vegetable, bulb, plant, hole, dig, water, weed, grow, shoot, die, dead, soil (Nursery - Plants)	plant, tree, bush, flower, vegetable, herb, weed, animal, names of plants and animals they see, name of a contrasting environment (e.g. beach, forest)
Animals, Including Humans	
Nursery	Reception
egg, chick, bird, caterpillar, cocoon, chrysalis, butterfly, frog spawn, tadpole, froglet, frog, grow, change, die, names of animals and their young, fur, feathers, scales, tail, wings, beak, claws, paws, hooves, swim, walk, run, jump, fly, patterns, spots, stripes, grow, change, baby, toddler, child, adult, old person, smell, taste, touch, feel, hear, see, blind, deaf	names of animals, live, on land, in water, jungle, desert, North Pole, South Pole, sea, hot, cold, wet, dry, snow, ice, hair (e.g. black, brown, dark, light, blonde, ginger, grey, white, long, short, straight, curly), eyes (e.g. blue, brown, green, grey), skin (e.g. black, brown, white), big/tall, small/short, bigger/smaller, baby, toddler, child, adult, old person, old, young, brother, sister, mother, father, aunt, uncle, grandmother, grandfather, cousin, friend, family, boy, girl, man, woman

Evolution and Inheritance	
Nursery	Reception
natural, plant, animal, leaves, seeds, conkers, acorns, twigs, bark, shells, feathers, pebbles, stones, same, different, pattern (Nursery - Living things and their habitats)	plant, tree, bush, flower, vegetable, herb, weed, animal, names of plants and animals they see, name of a contrasting environment (e.g. beach, forest) (Reception - Living things and their habitats)
Seasonal Change	
Nursery	Reception
grow, shoot, die, dead (Nursery - Plants) egg, chick, bird, caterpillar, cocoon, chrysalis, butterfly, frog spawn, tadpole, froglet, frog, grow, change, die, names of animals and their young (Nursery - Animals, excluding humans)	Spring, Summer, Autumn, Winter, seasons, sunny, cloudy, hot, warm, cold, shower, raining, storm, thunder, lightning, hail, sleet, snow, icy, frost, puddles, windy, rainbow, animals, young, plants, flowers
Materials	
Nursery	Reception
mix, stir, cook, hot, oven, microwave, change, burn, melt, hard, runny, set, freeze, freezer, cold, blended, hard, soft, bendy, stiff, wobbly, wood, plastic, paper, card, fabric	ice, water, frozen, icicle, snow, melt, wet, cold, slippery, smooth, big, bigger, biggest, smaller, smallest, hard, soft, bendy, rigid, wood, plastic, paper, card, metal, strong, weak, hot, apply heat, waterproof, soggy, not waterproof, best, change, change back
Rocks	
Nursery	Reception
natural, shells, pebbles, stones	
Light	
Nursery	Reception
light, torch, bulb, lamp, spotlight, shiny, bright, brighter, brightest, Sun, shine, glow, mirror	Sun, sunny, light, shadow, shady, clouds, torch, see-through, not see-through, source, light source
Forces	
Nursery	Reception
object, float, sink, water, up, down, top, bottom, push, pull, magnet, spring, squash, bend, twist, stretch, turn, spin, smooth, rough, fast, slow	float, sink, up, down, top, bottom, surface, move, roll, drop, fly, turn, spin, fall, fast, slow, faster, slower, fastest, slowest, further, furthest, wind, air, water, blow, bounce

Sound	
Nursery	Reception
sound, noise, loud, quiet, high, low, music, bang, blow, pluck, soft, hard, fast, slow, names of instruments	sound, noise, listen, hear, music, voices, bird song, traffic, sirens, thunder, high, low, loud, quiet, soft, volume, crackle, thunder, hum, buzz, roar
Electricity	
Nursery	Reception
battery, plug, socket, electricity, wire, sound, light, move	
Earth and Space	
Nursery	Reception
	Sun, Moon, Earth, star, planet, sky, day, night, space, round, bounce, float