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| **Becoming a Scientist**  **Vocabulary Progression Grid**  **RED= Expected to know from previous year groups**  **BLUE = New words to recognise and understand**  **GREEN = Examples to share** | | | | | | | |
|  | Early Years | 1 | 2 | 3 | 4 | 5 | 6 |
| Autumn |  | leaf, stem, flower, bud, root, tree -oak, beech, field maple, lime, sycamore, silver birch trunk, branch, twig, tall, short, taller, shorter, tallest, shortest  fish, amphibian, reptile, bird, mammal,  tail, paws, legs, feet, nose, ears, eyes, feather, fur, scales, fins, fish, tail, gills, scales, eyes, mouth, bill,  beak, head, eye, legs, claws, wings, feather, down quill, webbed feet, legs, smooth skin, scaly skin, claws on feet,  long tongue  jump, hop, leap, climb, clamber, swing, pad, pace, prowl, pounce, spring, dive, swim, slither, slide,  night, nocturnal, senses, sight, smell, sonar, food, feeding  roost, sett, burrow, tunnel, nest  carnivore, herbivore, omnivore | seeds, plant, apprentice, gardener, bulb, grow, bean, soil, surface, test, bury, germinate, radicle,  root, shoot, leaves, seedling, mature plant, wilting, healthy, unhealthy, warmth, care, die, block, alive, food store  need, want, living, alive, essential, food, milk, water, drink, eat, air, breathe, shelter, warmth, survival, depend, toddler dependent, independent, move, care, learn, appearance, annotate, life cycle, life story, | stalk, veins, surface, edge, lobes, tip, root hair, nutrients, anchor, support, germination, pollination, seed formation  bud, petal, sepal, carpel, stamen, pollen, reproduce, nectar, dispersal, animal, wind, self-dispersal, explosion, sprinkling, competition, stigma, style, ovary, anther, filament.  survive, balanced diet, nutrition, nutrients, carbohydrates, protein, fibre, sugar, fat, dairy, skeleton, muscles, joints, ribs, heart, skull, brain, backbone, spine, spinal column, vertebrate, footprint, trail, vitamins, minerals  sandstone, granite, chalk, limestone, marble, pumicite, granule, properties, soil, clay, sandy, loam, peat, organic material, weather, weathering, ammonite, fossil, fossilise | mouth, oesophagus, stomach, small intestine, large intestine, rectum, anus, digestive system, digestion, carbohydrate, fat, sugar, protein, healthy, mechanical process, chemical process, absorb, nutrients, saliva, chemicals, enzyme  teeth, canine, incisor, premolar, molar, jaw, dental hygiene, decay, dentist, brushing, toothpaste, floss, mouthwash  producer, consumer, predator, prey, herbivore, omnivore, carnivore  pollution, waste, biodiversity, derelict, graffiti, human impact global issue, destruction, deforestation, rainforest, climate, climate change, endangered, breed  vertebrate, fish, amphibian, reptile, bird, mammal, backbone, cold blooded, warm blooded  suckle, thorax, abdomen, segment, antennae, insects, arachnids (spiders), crustaceans, myriapods, molluscs | Aldebaran, Arctic, Antarctic, British Summer Time, Earth, Greenwich Meridian, International Date Line, Jupiter, Mars, Mercury, Milky Way, Moon, North Pole, Saturn, South Pole, Sun, Neptune, Universe, Uranus, Venus, asteroid, axis, compass, crescent, dawn, degrees, dusk, equator, equinox, fixed stars, Full Moon, galaxy, gibbous, hemisphere, horizon, illuminate, leap year, longitude, lunar month, meridian, nebula, New Moon, northern, orbit, planet, reflect, rotate, rotation, solar system, solstice, southern, spin, star, sunrise, sunset, telescope, temperature, tilt, time zone, waning, waxing,  mechanisms, Newton, Newton meter, pinion, pivot, pulley, rack, resistance, rotary motion, speed, time, unbalanced force, up thrust, water resistance, weight arm, wheel air resistance, Aristotle, balanced forces, bevel gears, clockwork, cogs, compress, extend, effort, force arm, , force, friction, force arrow, fulcrum, gravity, Galileo, gear ,lever, lift | alcohol, asthma, athlete, balanced diet, beats per minute (bpm), caffeine, calories, cancer, cigarettes, clinical trial, diet, doping, drugs, heart rate, intensity, illegal, James Lind, legal, lifestyle, lungs, medicine, nutrition, oxygen, passive smoking, peer pressure, performance enhancing, persuade, physical benefits, pulse rate, RDA (recommended daily allowance), recovery rate, resting rate, rickets, saturated fat, smoking, sodium, solvents, steroids, tobacco, training, unsaturated fat  aorta, artery, atrium, blood, blood vessel, capillaries, carbon dioxide, cells, chamber, chest cavity, circulation, circulatory system, deoxygenated blood, digestive system, digestive tract, health, heart, heart valves, hydration, lubricant, lungs muscular system, oxygen, oxygenated blood, plasma, platelets, pump, red blood cell, skeletal, system, transport, valve, vein, vena cava, ventricle, vessel, gases, white blood cells |
| Spring |  | seasons, autumn, winter, spring, summer, months, temperature, hot, warm, cold, cool, freezing, frosty, wet, dry, sunny, cloudy, showery, stormy, windy, breeze, gale, rainy, sunny, snow, shower, drizzle, puddle, breeze, gale, thunder, lightning, sleet, fog, mist, waterproof | sort, classify, Venn diagram, Carroll diagram, healthy diet, dairy, fruits, vegetables, meat, fish, beans, fat, sugar    exercise, physical activity, hot, sweaty, heart beating, pulse, tired, aching, muscles, clean, hygiene, hygienic  egg, offspring, baby, adult, grow habitat, food chain | light, dark, shadow, mirror, bright, dim, reflect, eye, opaque, transparent, translucent, ultraviolet, ray, beam, absorb, luminous, non-luminous, infrared | solid, liquid, viscous, degree Celsius solidify, solidifying states of matter, change of state, melting point, freezing point, process, gas, air, carbon dioxide, helium, oxygen, bubbles, particle, weight, compress, volume, evaporate, evaporation, water vapour, boiling point, droplets, condense, condensation  vibration, vibrate sound source, pitch, strength of vibrations | saturated, saturation, reversible, non-reversible, microbes, bacteria, oil, detergent, sticky, filter, mechanical, residue, biological, purify, sterilise  separate, mixture, sieve, filter, evaporate, solid, liquid, gas, powder, particle, dissolve, soluble, solution, contaminate, contaminated, impurity, pure, purity, suspension, tarnish, iron, steel, chromium, tin, zinc; boil, vapour, fuel, , burning, flammable, solidifies, dissolve, reversible, non-reversible, mixture, powder, particle, tablet, carbon dioxide, inflate, rust, oxidise, oxygen, corrode durable, durability thermal conductor, thermal insulator, insulate, viscosity, viscous polyester, nylon, polythene, PVC, polystyrene acrylic – recycle, biodegradable | identify, identification, classify, classification, division, genus, species, common characteristics, distinguishing characteristics, backbone, jointed legs, cased, transparent, antennae, shell, segments colony, colonies, mould, Aristotle, Carl Linnaeus, kingdom, Phillip Miller, John Ray, botany, conventions Animalia, Plantae, Fungi, Protista, and Monera flowering plants, conifers, ferns, mosses, algae, vertebrates, fish, amphibians, mammals, birds, reptiles, invertebrates, molluscs, annelids, arachnids, insects, arthropods variation, environment, inheritance, adaptation, selective breeding, natural selection, evolution, fossils, genes, genetics, DNA, extinct, extinction, speciation |
| Summer |  | materials, wrapping, shiny, fabric, wool, nylon, silk, fleece fibre, properties, hard, soft, fluffy, rough, smooth, shiny, dull, light, heavy, transparent (see-through), opaque (can’t see-through), translucent (see something through), harder, lighter, rougher, stretch, stretchy, elastic, stiff, bend, bendy, not bendy, press, squash, twist, shape, waterproof, absorb, absorbent, frozen, freeze, melt, | herbivores (eat plants and parts of plants), carnivores (eat other animals), omnivores (eat plants/parts of plants and other animals), direction, source of food | push, pull, twist, force, air, turns, fast, slow, slows down, material, surface, magnet, attracts, magnetic material, magnetism, non-magnetic material, metal, non-metal, strength, north pole, south pole, repel | electricity, electrical, mains, battery, power, rechargeable, solar, wind up, sound, light, heat, movement, cell, wire, bulb, bulb holder, buzzer, motor, component, circuit, complete circuit, short circuit, flow, break, metal, connect, disconnect, terminal, positive, negative, switch, electrical conductor, electrical insulator, electron, filament | prey, predator, reproduce, habitat, humpback whale, blue whale, swift, osprey, wildebeest, caribou, monarch butterﬂy, migrate, migration, navigate, genetic, endangered, threatened, extinct, extinction, giant panda, black rhino, peregrine falcon, bumblebee, salamander, osprey, koala bear life cycle, birth, growth, reproduction, metamorphosis, aging, death, animal, mammal, amphibian, insect, bird, elephant, toad, bumblebee, blue tit, hedgehog, bat, polar bear, mountain gorilla, cubs, pups, hibernate, nocturnal, marsupial, toad, newt, salamander, tree frog, tadpole, larva, frog, toad, gills, cold blooded, ladybird, butterﬂy, dragonﬂy, thorax, abdomen, pupa, cocoon, thrush, peregrine falcon, ostrich, emperor penguin, breeding cycle, clutch, brood, hatch, ﬂedge  reproduction, organ, carpel, stamen, pollen, seed head, berry, fruit, pollinator, pollination, fertilisation , reproduce, propagate, runners, tubers, rhizomes, gender, sex, sexual, asexual, mate, sperm, pregnant, give birth,  opaque, transparent, translucent, ultraviolet, ray, beam, refraction, periscope, spectrum, dispersion, inverted, medium | cell, battery, lamp, wire, buzzer, motor, circuit, current, filament, electrical insulator, electrical conductor, mains electricity, terminal, switch, series circuit, resistance, resistor, current, generate, generator, coal, gas, oil, fossil fuels, nuclear, biomass fired power stations, wind turbine, wave hub, tidal flow, hydro-electric, grid, pylon, transmission, transformer, solar panels |
| Scientific Enquiry |  | similar, different, compare, group, measure  evidence, change | observe, observations, describe, identify, expert,  compare, answer, investigate, fair, same, plan, suitable, change, bar chart, scale, connection, measure, agree, disagree  table, scatter graph, pattern, evidence, question, record | observe, question, investigation, fair test, change, measure, explanation, draw conclusions, classify, survey, evidence | tally chart, pictogram, bar chart, opinion, point of view, argument, viewpoint, debate, features, sequence, key, distinguish, similarities, differences, observations, sort, group, classify, identify  variable, interval, control, annotate, accuracy, reliable, repeatable | line graph, question, record, review, scientific diagram, table question, investigation, fair test, change, measure, explanation, observations, draw conclusions | question, investigation, fair test, change, measure, explanation, observations, draw conclusions, circuit diagram, recognised symbols |