



**Churchill Primary School Science Vocabulary Progression**

# Science Vocabulary Progression Map:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Animals Including Humans	<ul style="list-style-type: none"> <li>Names of animal groups: <b>fish, amphibians, reptiles, birds, mammals.</b></li> <li>Animal diets: <b>carnivore, herbivore, omnivore.</b></li> <li>Human and animal body parts: e.g. body, head, neck, arms, elbows, legs, knees, face, ears, eyes, nose, hair, mouth, teeth, hands, feet, tail, wings, feathers, fur, beak, fins, gills.</li> <li>Human senses: <b>sight, hearing, touch, smell, taste.</b></li> <li>Exploring senses: loud, quiet, soft, rough.</li> <li>Other: human, animal, pet.</li> </ul>	<ul style="list-style-type: none"> <li>Being born and growing: <b>Young, offspring, live young, grow, develop, change, hatch, lay, fly, crawl, talk.</b></li> <li>Young and adult names: e.g. lamb and sheep, kitten and cat, duckling and duck.</li> <li>Life cycle stages: e.g. baby, toddler, child, teenager, <b>adult</b>; frogspawn, tadpole, froglet, frog.</li> <li>Survival and staying healthy: basic needs, survive, food, air, <b>exercise, diet, nutrition, healthy, balanced diet, hygiene, germs.</b></li> <li>Food groups: fruit and vegetables, proteins, dairy and alternatives, carbohydrates, oil and spreads, fat, salt, sugar.</li> </ul> <p>Previously introduced vocabulary: <b>water.</b></p>	<ul style="list-style-type: none"> <li>Food groups and nutrients: fibre, fats (<b>saturated and unsaturated</b>), vitamins, minerals.</li> <li>Skeletons and muscles: skeleton, <b>muscles, tendons, joints</b>, protection, support, organs, voluntary muscles, involuntary muscles, biceps, triceps, contract, relax, bone, cartilage, shell, <b>vertebrate, invertebrate</b>, endoskeleton, exoskeleton, hydrostatic skeleton.</li> <li>Names of human bones: e.g. skull, spine, backbone, vertebral column, ribcage, pelvis, clavicle, scapula, humerus, ulna, pelvis, radius, femur, tibia, fibula.</li> <li>Other: <b>energy.</b></li> </ul> <p>Previously introduced vocabulary: movement.</p>	<ul style="list-style-type: none"> <li>Digestive system: <b>digest</b>, digestion, tongue, teeth, saliva, salivary glands, <b>oesophagus, stomach</b>, liver, pancreas, gall bladder, <b>small intestine, duodenum, large intestine, rectum</b>, anus, faeces, organ.</li> <li>Types of teeth and dental care: <b>molar, premolar, incisor, canine</b>, wisdom teeth, tooth decay, plaque, enamel, baby (milk) teeth.</li> <li>Food chains and animal diets: decomposer, food web.</li> </ul> <p>Previously introduced vocabulary: <b>producer, consumer, prey, predator, excretion, habitat.</b></p>	<ul style="list-style-type: none"> <li>Process of reproduction: <b>gestation, asexual reproduction, sexual reproduction</b>, sperm, egg, cells, clone.</li> <li>Changes and life cycle: embryo, foetus, uterus, <b>prenatal, adolescence, puberty, menstruation, adulthood</b>, menopause, <b>life expectancy</b>, old age, hormones, sweat.</li> <li>Changing body parts: e.g. breasts, penis, larynx, ovaries, genitalia, pubic hair.</li> </ul> <p>Previously introduced vocabulary: reproduction, <b>reproduce</b>, types of animals and animal groups, <b>fertilisation.</b></p>	<ul style="list-style-type: none"> <li><b>Circulatory system:</b> circulation, <b>heart</b>, pulse, heartbeat, heart rate, lungs, breathing, <b>blood vessels</b>, blood, pump, transported, <b>oxygenated blood, deoxygenated blood</b>, oxygen, arteries, veins, capillaries, chambers, plasma, platelets, white blood cells, red blood cells.</li> <li>Lifestyle: <b>drug, alcohol</b>, smoking, disease, calorie, energy input, energy output.</li> <li>Other: water transportation, nutrient transportation, waste products.</li> </ul> <p>Previously introduced vocabulary: carbon dioxide.</p>

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Evolution and Inheritance						<ul style="list-style-type: none"> <li>• <b>Evolution and inheritance:</b> evolve, <b>adaptation</b>, inherit, <b>natural selection</b>, <b>adaptive traits</b>, <b>inherited traits</b>, mutations, theory of evolution, ancestors, biological parent, chromosomes, genes, Charles Darwin.</li> <li>• <u>Other:</u> selective breeding, artificial selection, breed, cross breeding, genetically modified food, cloning, DNA.</li> </ul> <p>Previously introduced vocabulary: classification, <b>offspring</b>, <b>characteristics</b>, <b>habitat</b>, <b>environment</b>, adapt, <b>variations</b>, human, <b>fossil</b>, suited, cells, names of different habitats, names of animals and their body parts, species, <b>sedimentary rock</b>, lava, <b>igneous rock</b>, <b>metamorphic rock</b>, <b>magma</b>, heat, <b>fossilisation</b>.</p>
Seasonal Changes	<ul style="list-style-type: none"> <li>• <b>Seasons:</b> <b>spring</b>, <b>summer</b>, <b>autumn</b>, <b>winter</b>, seasonal change.</li> <li>• <b>Weather:</b> e.g. sun, rain, snow, sleet, frost, ice, fog, cloud, hot/warm, cold, storm, wind, thunder, weather forecast.</li> <li>• <u>Measuring weather:</u> temperature, rainfall, wind direction, thermometer, rain gauge.</li> <li>• <u>Day length:</u> night, day, <b>daylight</b>.</li> </ul>					

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Plants	<ul style="list-style-type: none"> <li>Names of common plants: <b>wild plant, garden plant, evergreen tree, deciduous tree, common flowering plant, weed, grass.</b></li> <li>Name some features of plants: e.g. <b>flower</b>, vegetable, <b>fruit, berry, leaf/leaves</b>, blossom, <b>petal, stem</b>, trunk, branch, <b>root, seed, bulb</b>, soil.</li> <li>Name some common types of plant e.g. sunflower, daffodil.</li> </ul>	<ul style="list-style-type: none"> <li>Growth of plants: <b>germination, shoot, seed dispersal</b>, grow, food store, life cycle, die, wilt, seedling, sapling.</li> <li>Needs of plants: <b>sunlight, nutrition</b>, light, healthy, space, air.</li> <li>Name different types of plant: e.g. bean plant, cactus.</li> <li>Names of different habitats: e.g. rainforest, desert.</li> </ul> <p>Previously introduced vocabulary: <b>water, temperature</b>, warm, hot, cold, habitat.</p>	<ul style="list-style-type: none"> <li>Water transportation: transport, <b>evaporation, evaporate, nutrients</b>, absorb, anchor.</li> <li>Life cycle of flowering plants: <b>pollination</b> (insect/wind), pollen, nectar, pollinator, seed formation, <b>seed dispersal</b> (animal/wind/water), reproduce, <b>fertilisation</b>, fertilise, <b>stamen</b>, anther, filament, <b>carpel (pistil)</b>, stigma, style, ovary, ovule, <b>sepal</b>, carbon dioxide.</li> </ul> <p>Previously introduced vocabulary: life cycle.</p>			
Living Things and Their Habitats		<ul style="list-style-type: none"> <li>Living or dead: <b>living, dead, never living</b>, not living, alive, never been alive, healthy.</li> <li>Habitats including microhabitats: <b>depend</b>, shelter, <b>safety, survive</b>, suited, space, minibeast, air.</li> <li>Life processes: movement, sensitivity, growth, reproduction, nutrition, excretion, respiration.</li> <li>Food chains: <b>food sources</b>, food, producer, consumer, predator, prey.</li> <li>Names of habitats and microhabitats: e.g. under leaves, woodland, rainforest, sea shore, ocean, urban, local habitat.</li> </ul> <p>Previously introduced vocabulary: senses, <b>carnivore, herbivore, omnivore, seed, water</b>, names of materials.</p>		<ul style="list-style-type: none"> <li>Living things: <b>organisms, specimen, species.</b></li> <li>Grouping living things: <b>classification</b>, classification keys, classify, <b>characteristics.</b></li> <li>Names of invertebrate animals: snails and slugs, worms, spiders, insects.</li> <li>Invertebrate body parts: e.g. wing case, abdomen, thorax, antenna, segments, mandible, proboscis, prolegs.</li> <li>Environmental changes: <b>environment</b>, environmental dangers, adapt, natural changes, climate change, deforestation, pollution, urbanisation, invasive species, <b>endangered species, extinct.</b></li> </ul> <p>Previously introduced vocabulary: carbon dioxide, <b>fish, bird, mammal, amphibian, reptile</b>, skeleton, bone, <b>vertebrate, invertebrate</b>, backbone, names for animal body parts, names of common plants, photosynthesis.</p>	<ul style="list-style-type: none"> <li>Reproduction: <b>asexual reproduction, sexual reproduction, gestation, metamorphosis</b>, gametes, tuber, runners/side branches, plantlet, cuttings, embryo, adolescent, penis, vagina, egg, pregnancy, gestation.</li> </ul> <p>Previously introduced vocabulary: <b>life cycle, pollination</b>, offspring, <b>fertilise</b>, fertilisation, sepal, filament, anther, stamen, pollen, petal, stigma, style, ovary, carpel, ovule, stem, bulb, roots, mammal, adult, baby, sperm, cells, live young.</p>	<ul style="list-style-type: none"> <li>Classifying: Carl Linnaeus, Linnaean system, flowering and non-flowering plants, variation.</li> <li>Microorganisms: <b>bacteria</b>, single-celled, microbes, microscopic, virus, fungi, fungus, mould, antibiotic, yeast, ferment, <b>microscope</b>, decompose.</li> </ul>

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Forces			<ul style="list-style-type: none"> <li>• <u>How things move</u>: move, movement, <b>surface</b>, distance, strength.</li> <li>• <u>Types of forces</u>: push, pull, contact force, non-contact force, <b>friction</b>.</li> <li>• <u>Magnets</u>: <b>magnetic, magnetic field</b>, magnetic force, bar magnet, horseshoe magnet, ring magnet, magnetic <b>poles</b> (north pole, south pole), <b>attract, repel</b>, compass.</li> <li>• <u>Magnetic and non-magnetic materials</u>: <b>e.g.</b> iron, nickel, cobalt.</li> </ul> <p>Previously introduced vocabulary: metal, names of materials.</p>		<ul style="list-style-type: none"> <li>• <u>Types of forces</u>: <b>air resistance, water resistance, buoyancy, upthrust</b>, Earth's <b>gravitational pull, gravity</b>, opposing forces, driving force.</li> <li>• <u>Mechanisms</u>: levers, pulleys, gears/cogs.</li> <li>• <u>Measurements</u>: <b>weight, mass</b>, kilograms (kg), Newtons (N), scales, speed, fast, slow.</li> <li>• <u>Other</u>: <b>streamlined</b>, Earth.</li> </ul> <p>Previously introduced vocabulary: air, heat, moon.</p>	
Light			<ul style="list-style-type: none"> <li>• <u>Light and seeing</u>: <b>dark</b>, absence of light, <b>light source</b>, illuminate, visible, <b>shadow, translucent</b>, energy, block.</li> <li>• <u>Light sources</u>: <b>e.g.</b> candle, torch, fire, lantern, lightning.</li> <li>• <u>Reflective light</u>: <b>reflect, reflection</b>, surface, <b>ray</b>, scatter, reverse, beam, angle, mirror, moon.</li> <li>• <u>Sun safety</u>: dangerous, glare, damage, UV light, UV rating, sunglasses, direct.</li> </ul> <p>Previously introduced vocabulary: <b>opaque, transparent</b>, sunlight, sun.</p>			<ul style="list-style-type: none"> <li>• <u>Reflection</u>: periscope.</li> <li>• <u>Seeing light</u>: <b>visible spectrum, prism</b>.</li> <li>• <u>How light travels</u>: light waves, wavelength, straight line, <b>refraction</b>.</li> </ul> <p>Previously introduced vocabulary: names and properties of materials, absorb.</p>

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Sound				<ul style="list-style-type: none"> <li>• <u>Parts of the ear</u>: eardrum.</li> <li>• <u>Making sound</u>: vibration, vocal cords, particles.</li> <li>• <u>Measuring sound</u>: pitch, volume, amplitude, sound wave, quiet, loud, high, low, travel, distance.</li> <li>• <u>Other</u>: soundproof, absorb sound.</li> </ul>		
Earth and Space					<ul style="list-style-type: none"> <li>• <u>Solar system</u>: star, planet.</li> <li>• <u>Names of planets</u>: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Neptune, Uranus.</li> <li>• <u>Shape</u>: spherical bodies, sphere.</li> <li>• <u>Movement</u>: rotate, axis, orbit, satellite.</li> <li>• <u>Theories</u>: geocentric model, heliocentric model, astronomer.</li> <li>• <u>Day length</u>: sunrise, sunset, midday, time zone.</li> </ul> <p>Previously introduced vocabulary: Sun, moon, shadow, day, night, heat, light, reflect.</p>	

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Electricity				<ul style="list-style-type: none"> <li>• <b>Electricity:</b> mains-powered, battery-powered, <b>mains electricity</b>, plug, <b>appliances</b>, devices.</li> <li>• <b>Circuits:</b> <b>circuit</b>, simple series circuit, complete circuit, incomplete circuit.</li> <li>• <b>Circuit parts:</b> bulb, cell, wire, buzzer, switch, motor, <b>battery</b>.</li> <li>• <b>Materials:</b> <b>electrical conductor</b>, <b>electrical insulator</b>.</li> <li>• <b>Other:</b> safety.</li> </ul> <p>Previously introduced vocabulary: names of materials.</p>		<ul style="list-style-type: none"> <li>• <b>Flow and measure of electricity:</b> <b>voltage</b>, <b>amps</b>, <b>resistance</b>, <b>electrons</b>, volts (V), <b>current</b>.</li> <li>• <b>Circuits:</b> <b>symbol</b>, circuit diagram, component, function, filament.</li> <li>• <b>Variations:</b> dimmer, brighter, louder, quieter.</li> <li>• <b>Types of electricity:</b> natural electricity, human-made electricity, solar panels, power station.</li> <li>• <b>Other:</b> positive, negative.</li> </ul>
Materials	<ul style="list-style-type: none"> <li>• <b>Names of materials:</b> wood, plastic, glass, metal, water, rock, paper, cardboard, rubber, fabric.</li> <li>• <b>Properties of materials:</b> <b>hard</b>, <b>soft</b>, <b>shiny</b>, <b>dull</b>, <b>stretchy</b>, <b>rough</b>, <b>smooth</b>, <b>bendy</b>, <b>not bendy</b>, <b>transparent</b>, <b>opaque</b>, <b>waterproof</b>, <b>not waterproof</b>, <b>absorbent</b>, <b>not absorbent</b>, sharp, stiff.</li> <li>• <b>Other:</b> <b>object</b>.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Changing shape:</b> squash, bend, twist, stretch.</li> <li>• <b>Properties of materials:</b> <b>e.g.</b> strong, flexible, light, hard-wearing, elastic.</li> <li>• <b>Other:</b> <b>suitability</b>, recycle, pollution.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Types of rock:</b> <b>sedimentary rock</b>, <b>igneous rock</b>, <b>metamorphic rock</b>.</li> <li>• <b>Properties of rocks:</b> <b>permeable</b>, semi-permeable, <b>impermeable</b>, durable.</li> <li>• <b>Names of rocks:</b> <b>e.g.</b> marble, chalk, granite, sandstone, slate.</li> <li>• <b>Formation of rocks and fossils:</b> natural, human-made, <b>magma</b>, <b>lava</b>, molten rock, <b>sediment</b>, <b>erosion</b>, <b>fossilisation</b>, layers, bone, fossil.</li> <li>• <b>Soil:</b> sandy, chalky, clay, peaty, loamy, topsoil, subsoil, bedrock, mineral, organic matter, compost.</li> <li>• <b>Other:</b> <b>palaeontology</b>.</li> </ul> <p>Previously introduced vocabulary: soil, <b>water</b>, air.</p>	<ul style="list-style-type: none"> <li>• <b>States of matter:</b> <b>solids</b>, <b>liquids</b>, <b>gases</b>, particles.</li> <li>• <b>State change:</b> <b>evaporate</b>, <b>condense</b>, <b>melt</b>, <b>freeze</b>, heat, cool, melting point, freezing point, boiling point, <b>water vapour</b>.</li> <li>• <b>Water cycle:</b> <b>precipitation</b>, evaporation, condensation, ground run-off, collection, underground water, bodies of water (sea, river, stream), water droplets, hail.</li> <li>• <b>Other:</b> atmosphere.</li> </ul> <p>Previously introduced vocabulary: temperature, rain, cloud, snow, wind, sun, hot, cold, absorb, carbon dioxide</p>	<ul style="list-style-type: none"> <li>• <b>Properties of materials:</b> thermal <b>conductor/insulator</b>, magnetism, electrical resistance, <b>transparency</b>.</li> <li>• <b>Mixtures and solutions:</b> dissolving, substance, soluble, insoluble.</li> <li>• <b>Changes of materials:</b> reversible change, physical change, irreversible change, chemical change, burning, new material, product.</li> <li>• <b>Separating:</b> sieving, filtering, magnetic attraction.</li> </ul> <p>Previously introduced vocabulary: electrical <b>conductor/insulator</b>, bulb, <b>translucent</b>.</p>	