

BISHOP CREIGHTON ACADEMY - Vocabulary progression within Science Curriculum

Animals including humans	Living things and their habitats	Plants	Materials	Forces	Light	Sound	Electricity	Rocks and soil	Seasonal change
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This document details the required vocabulary that the children should understand throughout each topic and year group as a prerequisite for further learning. Vocabulary is not exclusive to each year group so it is not repeated on the grid in subsequent year groups for the same topic. For example, a Year 2 child studying 'Animals including Humans' may use the vocabulary listed in the Year 2 column as well as that in the Year 1 column. Likewise, a Year 6 child learning about 'Light' may use the Year 3 vocabulary as well as the Year 6. Where vocabulary may have already been encountered in a previous year group but in a different topic, this will be listed under 'Previously introduced vocabulary'.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Animals including humans	<ul style="list-style-type: none"> Names of animal groups: fish, amphibians, reptiles, birds, mammals. Animal diets: carnivore, herbivore, omnivore. 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. Human senses: sight, hearing, touch, smell, taste. Exploring senses: loud, quiet, soft, rough. Other: human, animal, pet. 	<ul style="list-style-type: none"> Being born and growing: Young, offspring, live young, grow, develop, change, hatch, lay, fly, crawl, talk. Young and adult names: e.g. lamb and sheep, kitten and cat, duckling and duck. Life cycle stages: e.g. baby, toddler, child, teenager, adult; frogspawn, tadpole, froglet, frog. Survival and staying healthy: basic needs, survive, food, air, exercise, diet, nutrition, hygiene, germs. Food groups: fruit and vegetables, proteins, dairy and alternatives, carbohydrates, oil and spreads, fat, salt, sugar. <p>Previously introduced vocabulary: water.</p>	<ul style="list-style-type: none"> Food groups and nutrients: fibre, fats (saturated and unsaturated), vitamins, minerals. Skeletons and muscles: skeleton, muscles, tendons, joints, protection, support, organs, voluntary muscles, involuntary muscles, biceps, triceps, contract, relax, bone, cartilage, shell, vertebrate, invertebrate, endoskeleton, exoskeleton, hydrostatic skeleton. Names of human bones: e.g. skull, spine, backbone, vertebral column, ribcage, pelvis, clavicle, scapula, humerus, ulna, pelvis, radius, femur, tibia, fibula. Other: energy. <p>Previously introduced vocabulary: movement.</p>	<ul style="list-style-type: none"> Digestive system: digest, digestion, tongue, teeth, saliva, salivary glands, oesophagus, stomach, liver, pancreas, gall bladder, small intestine, duodenum, large intestine, rectum, anus, faeces, organ. Types of teeth and dental care: molar, premolar, incisor, canine, wisdom teeth, tooth decay, plaque, enamel, baby (milk) teeth. Food chains and animal diets: decomposer, food web. <p>Previously introduced vocabulary: producer, consumer, prey, predator, excretion, habitat.</p>	<ul style="list-style-type: none"> Process of reproduction: gestation, asexual reproduction, sexual reproduction, sperm, egg, cells, clone. Changes and life cycle: embryo, foetus, uterus, prenatal, adolescence, puberty, menstruation, adulthood, menopause, life expectancy, old age, hormones, sweat. Changing body parts: e.g. breasts, penis, larynx, ovaries, genitalia, pubic hair. <p>Previously introduced vocabulary: reproduction, reproduce, types of animals and animal groups, fertilisation.</p>	<ul style="list-style-type: none"> Circulatory system: circulation, heart, pulse, heartbeat, heart rate, lungs, breathing, blood vessels, blood, pump, transported, oxygenated blood, deoxygenated blood, oxygen, arteries, veins, capillaries, chambers, plasma, platelets, white blood cells, red blood cells. Lifestyle: drug, alcohol, smoking, disease, calorie, energy input, energy output. Other: water transportation, nutrient transportation, waste products. <p>Previously introduced vocabulary: carbon dioxide.</p>
Living things and their habitats		<ul style="list-style-type: none"> Living or dead: living, dead, never living, not living, alive, never been alive, healthy. Habitats including microhabitats: depend, shelter, safety, survive, suited, space, minibeast, air. Life processes: movement, sensitivity, growth, reproduction, nutrition, excretion, respiration. 		<ul style="list-style-type: none"> Living things: organisms, specimen, species. Grouping living things: classification, classification keys, classify, characteristics. Names of invertebrate animals: snails and slugs, worms, spiders, insects. Invertebrate body parts: e.g. wing case, abdomen, thorax, antenna, segments, 	<ul style="list-style-type: none"> Reproduction: asexual reproduction, sexual reproduction, gestation, metamorphosis, gametes, tuber, runners/side branches, plantlet, cuttings, embryo, adolescent, penis, vagina, egg, pregnancy, gestation. <p>Previously introduced vocabulary: life cycle, pollination, offspring, fertilise, fertilisation, sepal, filament, anther, stamen,</p>	<ul style="list-style-type: none"> Classifying: Carl Linnaeus, Linnaean system, flowering and non-flowering plants, variation. Microorganisms: bacteria, single-celled, microbes, microscopic, virus, fungi, fungus, mould, antibiotic, yeast, ferment, microscope, decompose.

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		<ul style="list-style-type: none"> • Food chains: food sources, food, producer, consumer, predator, prey. • Names of habitats and microhabitats: e.g. under leaves, woodland, rainforest, sea shore, ocean, urban, local habitat. <p>Previously introduced vocabulary: senses, carnivore, herbivore, omnivore, seed, water, names of materials.</p>		<p>mandible, proboscis, prolegs.</p> <ul style="list-style-type: none"> • Environmental changes: environment, environmental dangers, adapt, natural changes, climate change, deforestation, pollution, urbanisation, invasive species, endangered species, extinct. <p>Previously introduced vocabulary: carbon dioxide, fish, bird, mammal, amphibian, reptile, skeleton, bone, vertebrate, invertebrate, backbone, names for animal body parts, names of common plants, photosynthesis.</p>	<p>pollen, petal, stigma, style, ovary, carpel, ovule, stem, bulb, roots, mammal, adult, baby, sperm, cells, live young.</p>	
<p>Evolution & inheritance</p>						<ul style="list-style-type: none"> • Evolution and inheritance: evolve, adaptation, inherit, natural selection, adaptive traits, inherited traits, mutations, theory of evolution, ancestors, biological parent, chromosomes, genes, Charles Darwin. • Other: selective breeding, artificial selection, breed, cross breeding, genetically modified food, cloning, DNA. <p>Previously introduced vocabulary: classification, offspring, characteristics, habitat, environment, adapt, variations, human, fossil, suited, cells, names of different habitats, names of animals and their body parts, species, sedimentary rock, lava, igneous rock, metamorphic rock, magma, heat, fossilisation.</p>

Plants	<ul style="list-style-type: none"> Names of common plants: wild plant, garden plant, evergreen tree, deciduous tree, common flowering plant, weed, grass. Name some features of plants: e.g. flower, vegetable, fruit, berry, leaf/leaves, blossom, petal, stem, trunk, branch, root, seed, bulb, soil. Name some common types of plant e.g. sunflower, daffodil. 	<ul style="list-style-type: none"> Growth of plants: germination, shoot, seed dispersal, grow, food store, life cycle, die, wilt, seedling, sapling. Needs of plants: sunlight, nutrition, light, healthy, space, air. Name different types of plant: e.g. bean plant, cactus. Names of different habitats: e.g. rainforest, desert. <p>Previously introduced vocabulary: water, temperature, warm, hot, cold, habitat.</p>	<ul style="list-style-type: none"> Water transportation: transport, evaporation, evaporate, nutrients, absorb, anchor. Life cycle of flowering plants: pollination (insect/wind), pollen, nectar, pollinator, seed formation, seed dispersal (animal/wind/water), reproduce, fertilisation, fertilise, stamen, anther, filament, carpel (pistil), stigma, style, ovary, ovule, sepal, carbon dioxide. <p>Previously introduced vocabulary: life cycle.</p>			
Materials	<ul style="list-style-type: none"> Names of materials: wood, plastic, glass, metal, water, rock, paper, cardboard, rubber, fabric. Properties of materials: hard, soft, shiny, dull, stretchy, rough, smooth, bendy, not bendy, transparent, opaque, waterproof, not waterproof, absorbent, not absorbent, sharp, stiff. Other: object. 	<ul style="list-style-type: none"> Changing shape: squash, bend, twist, stretch. Properties of materials: e.g. strong, flexible, light, hard-wearing, elastic. Other: suitability, recycle, pollution. 	(see Rocks and soils)	<ul style="list-style-type: none"> States of matter: solids, liquids, gases, particles. State change: evaporate, condense, melt, freeze, heat, cool, melting point, freezing point, boiling point, water vapour. Water cycle: precipitation, evaporation, condensation, ground run-off, collection, underground water, bodies of water (sea, river, stream), water droplets, hail. Other: atmosphere. <p>Previously introduced vocabulary: temperature, rain, cloud, snow, wind, sun, hot, cold, absorb, carbon dioxide.</p>	<ul style="list-style-type: none"> Properties of materials: thermal conductor/insulator, magnetism, electrical resistance, transparency. Mixtures and solutions: dissolving, substance, soluble, insoluble. Changes of materials: reversible change, physical change, irreversible change, chemical change, burning, new material, product. Separating: sieving, filtering, magnetic attraction. <p>Previously introduced vocabulary: electrical conductor/insulator, bulb, translucent.</p>	
Forces			<ul style="list-style-type: none"> How things move: move, movement, surface, distance, strength. Types of forces: push, pull, contact force, non-contact force, friction. Magnets: magnetic, magnetic field, magnetic force, bar magnet, horseshoe magnet, ring magnet, magnetic poles 		<ul style="list-style-type: none"> Types of forces: air resistance, water resistance, buoyancy, upthrust, Earth's gravitational pull, gravity, opposing forces, driving force. Mechanisms: levers, pulleys, gears/cogs. Measurements: weight, mass, kilograms (kg), 	

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			<p>(north pole, south pole), attract, repel, compass.</p> <ul style="list-style-type: none"> • <u>Magnetic and non-magnetic materials</u>: e.g. iron, nickel, cobalt. <p>Previously introduced vocabulary: metal, names of materials.</p>		<p>Newtons (N), scales, speed, fast, slow.</p> <ul style="list-style-type: none"> • <u>Other</u>: streamlined, Earth. <p>Previously introduced vocabulary: air, heat, moon.</p>	
Light			<ul style="list-style-type: none"> • <u>Light and seeing</u>: dark, absence of light, light source, illuminate, visible, shadow, translucent, energy, block. • <u>Light sources</u>: e.g. candle, torch, fire, lantern, lightning. • <u>Reflective light</u>: reflect, reflection, surface, ray, scatter, reverse, beam, angle, mirror, moon. • <u>Sun safety</u>: dangerous, glare, damage, UV light, UV rating, sunglasses, direct. <p>Previously introduced vocabulary: opaque, transparent, sunlight, sun.</p>			<ul style="list-style-type: none"> • <u>Reflection</u>: periscope. • <u>Seeing light</u>: visible spectrum, prism. • <u>How light travels</u>: light waves, wavelength, straight line, refraction. <p>Previously introduced vocabulary: names and properties of materials, absorb.</p>
Sound				<ul style="list-style-type: none"> • <u>Parts of the ear</u>: eardrum. • <u>Making sound</u>: vibration, vocal cords, particles. • <u>Measuring sound</u>: pitch, volume, amplitude, sound wave, quiet, loud, high, low, travel, distance. • <u>Other</u>: soundproof, absorb sound. 		
Electricity				<ul style="list-style-type: none"> • <u>Electricity</u>: mains-powered, battery-powered, mains electricity, plug, appliances, devices. • <u>Circuits</u>: circuit, simple series circuit, complete circuit, incomplete circuit. 		<ul style="list-style-type: none"> • <u>Flow and measure of electricity</u>: voltage, amps, resistance, electrons, volts (V), current. • <u>Circuits</u>: symbol, circuit diagram, component, function, filament. • <u>Variations</u>: dimmer, brighter, louder, quieter.

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				<ul style="list-style-type: none"> • <u>Circuit parts</u>: bulb, cell, wire, buzzer, switch, motor, battery. • <u>Materials</u>: electrical conductor, electrical insulator. • <u>Other</u>: safety. <p>Previously introduced vocabulary: names of materials.</p>		<ul style="list-style-type: none"> • <u>Types of electricity</u>: natural electricity, human-made electricity, solar panels, power station. • <u>Other</u>: positive, negative.
Rocks and soil			<ul style="list-style-type: none"> • <u>Types of rock</u>: sedimentary rock, igneous rock, metamorphic rock. • <u>Properties of rocks</u>: permeable, semi-permeable, impermeable, durable. • <u>Names of rocks</u>: e.g. marble, chalk, granite, sandstone, slate. • <u>Formation of rocks and fossils</u>: natural, human-made, magma, lava, molten rock, sediment, erosion, fossilisation, layers, bone, fossil. • <u>Soil</u>: sandy, chalky, clay, peaty, loamy, topsoil, subsoil, bedrock, mineral, organic matter, compost. • <u>Other</u>: palaeontology. <p>Previously introduced vocabulary: soil, water, air.</p>			
Seasonal change	<ul style="list-style-type: none"> • <u>Seasons</u>: spring, summer, autumn, winter, seasonal change. • <u>Weather</u>: e.g. sun, rain, snow, sleet, frost, ice, fog, cloud, hot/warm, cold, storm, wind, thunder, weather forecast. • <u>Measuring weather</u>: temperature, rainfall, wind direction, thermometer, rain gauge. 					

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	<ul style="list-style-type: none"> • <u>Day length</u>: night, day, daylight. 					
<p>Earth and space</p>					<ul style="list-style-type: none"> • <u>Solar system</u>: star, planet. • <u>Names of planets</u>: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Neptune, Uranus. • <u>Shape</u>: spherical bodies, sphere. • <u>Movement</u>: rotate, axis, orbit, satellite. • <u>Theories</u>: geocentric model, heliocentric model, astronomer. • <u>Day length</u>: sunrise, sunset, midday, time zone. <p>Previously introduced vocabulary: Sun, moon, shadow, day, night, heat, light, reflect.</p>	