

SCIENCE PROGRESSION MAP: VOCABULARY

SBIS Primary Science
Year 1 to Year 6

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Vocabulary Progression: Animals Inc Living Things	<ul style="list-style-type: none"> Names of animal groups: fish, amphibians, reptiles, birds, mammals. <u>Animal diets</u>: carnivore, herbivore, omnivore. <u>Human and animal body parts</u>: 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. <u>Human senses</u>: sight, hearing, touch, smell, taste. <u>Exploring senses</u>: loud, quiet, soft, rough. <u>Other</u>: human, animal, pet. 	<ul style="list-style-type: none"> <u>Being born and growing</u>: Young, offspring, live young, grow, develop, change, hatch, lay, fly, crawl, talk. <u>Young and adult names</u>: e.g. lamb and sheep, kitten and cat, duckling and duck. <u>Life cycle stages</u>: e.g. baby, toddler, child, teenager, adult; frogspawn, tadpole, froglet, frog. <u>Survival and staying healthy</u>: basic needs, survive, food, air, exercise, diet, nutrition, hygiene, germs. <u>Food groups</u>: 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"> <u>Food groups and nutrients</u>: fibre, fats (saturated and unsaturated), vitamins, minerals. <u>Skeletons and muscles</u>: skeleton, muscles, tendons, joints, protection, support, organs, voluntary muscles, involuntary muscles, biceps, triceps, contract, relax, bone, cartilage, shell, vertebrate, invertebrate, endoskeleton, exoskeleton, hydrostatic skeleton. <u>Names of human bones</u>: 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"> <u>Digestive system</u>: digest, digestion, tongue, teeth, saliva, salivary glands, oesophagus, stomach, liver, pancreas, gall bladder, small intestine, rectum, anus, faeces, organ. <u>Types of teeth and dental care</u>: molar, premolar, incisor, canine, wisdom teeth, tooth decay, plaque, enamel, baby (milk) teeth. <u>Food chains and animal diets</u>: decomposer, food web. <p>Previously introduced vocabulary: producer, consumer, prey, predator, excretion, habitat.</p>	<ul style="list-style-type: none"> <u>Process of reproduction</u>: gestation, asexual reproduction, sexual reproduction, sperm, egg, cells, clone. <u>Changes and life cycle</u>: embryo, foetus, uterus, prenatal, adolescence, puberty, menstruation, adulthood, menopause, life expectancy, old age, hormones, sweat. <u>Changing body parts</u>: 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"> <u>Circulatory system</u>: 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. <u>Lifestyle</u>: drug, alcohol, smoking, disease, calorie, energy input, energy output. <u>Other</u>: water transportation, nutrient transportation, waste products. <p>Previously introduced vocabulary: carbon dioxide.</p>

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Vocabulary Progression: 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>				

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Vocabulary Progression: 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. 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>		<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, mandible, proboscis, prolegs. 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>	<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, pollen, petal, stigma, style, ovary, carpel, ovule, stem, bulb, roots, mammal, adult, baby, sperm, cells, live young.</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.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Vocabulary Progression: Evolution and Inheritance						<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>

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Vocabulary Progression: Seasonal Changes	<ul style="list-style-type: none">• Seasons: spring, summer, autumn, winter, seasonal change.• Weather: e.g. sun, rain, snow, sleet, frost, ice, fog, cloud, hot/warm, cold, storm, wind, thunder, weather forecast.• Measuring weather: temperature, rainfall, wind direction, thermometer, rain gauge.• Day length: night, day, daylight.					

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Vocabulary Progression: Forces			<ul style="list-style-type: none"> • <u>How things move</u>: move, movement, surface, distance, strength. • <u>Types of forces</u>: push, pull, contact force, non-contact force, friction. • Magnets: magnetic, magnetic field, magnetic force, bar magnet, horseshoe magnet, ring magnet, magnetic poles (north pole, south pole), attract, repel, compass. • <u>Magnetic and non-magnetic materials</u>: e.g. iron, nickel, cobalt. <p>Previously introduced vocabulary: metal, names of materials.</p>		<ul style="list-style-type: none"> • <u>Types of forces</u>: air resistance, water resistance, buoyancy, upthrust, Earth's gravitational pull, gravity, opposing forces, driving force. • Mechanisms: levers, pulleys, gears/cogs. • <u>Measurements</u>: weight, mass, kilograms (kg), Newtons (N), scales, speed, fast, slow. • <u>Other</u>: streamlined, Earth. <p>Previously introduced vocabulary: air, heat, moon.</p>	

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	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Vocabulary Progression: Light			<ul style="list-style-type: none">• Light and seeing: dark, absence of light, light source, illuminate, visible, shadow, translucent, energy, block.• Light sources: e.g. candle, torch, fire, lantern, lightning.• Reflective light: reflect, reflection, surface, ray, scatter, reverse, beam, angle, mirror, moon.• Sun safety: dangerous, glare, damage, UV light, UV rating, sunglasses, direct. <p>Previously introduced vocabulary: opaque, transparent, sunlight, sun.</p>			<ul style="list-style-type: none">• Reflection: periscope.• Seeing light: visible spectrum, prism.• How light travels: light waves, wavelength, straight line, refraction. <p>Previously introduced vocabulary: names and properties of materials, absorb.</p>

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Vocabulary Progression: Sound				<ul style="list-style-type: none">• Parts of the ear: eardrum.• Making sound: vibration, vocal cords, particles.• Measuring sound: pitch, volume, amplitude, sound wave, quiet, loud, high, low, travel, distance.• Other: soundproof, absorb sound.		

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Vocabulary Progression: Earth and Space					<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>	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Vocabulary Progression: 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. • <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>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. • <u>Types of electricity</u>: natural electricity, human-made electricity, solar panels, power station. • <u>Other</u>: positive, negative.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Vocabulary Progression: 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. 	<ul style="list-style-type: none"> • Types of rock: sedimentary rock, igneous rock, metamorphic rock. • Properties of rocks: permeable, semi-permeable, impermeable, durable. • Names of rocks: e.g. marble, chalk, granite, sandstone, slate. • Formation of rocks and fossils: natural, human-made, magma, lava, molten rock, sediment, erosion, fossilisation, layers, bone, fossil. • Soil: sandy, chalky, clay, peaty, loamy, topsoil, subsoil, bedrock, mineral, organic matter, compost. • Other: palaeontology. <p>Previously introduced vocabulary: soil, water, air.</p>	<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>	

Progression of Vocabulary - Working Scientifically

KS1	LKS2	UKS2
<p>aim answers block diagrams changes compare describe difference different enquiry equipment experience explore findings gather group identify (name) investigate measure notice observe patterns pictograms questions record same similarity simple tables sort sorting diagrams tally charts test What will we do? (plan) What do you think will happen? (prediction) What happened? (results) What have we found out? (conclusion)</p>	<p>accurate bar chart chart classify comparative test conclusion (What have we found out?) criteria data develop diagram evaluate evidence explanation key making a test fair method observations plan (What will we do?) practical enquiry prediction (What do you think will happen?) primary sources questioning reasoning relationships results (What happened?) secondary sources standard units table What do we change, what do we keep the same, what are we measuring?</p>	<p>accuracy and precision bar graphs causal relationship degree of trust dependent variable independent variable justify line graphs refute repeat results scatter graphs support variables (what do we change, what do we keep the same, how and what are we measuring?)</p>