**Science Progression of Vocabulary at Leavening Community Primary**

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| Programmes of study |
| Nursery | * Name body parts
* Words to describe growth – enormous, huge
* Words to describe the lifecycles.
* Plant and animal names.
* Names of everyday **materials**: wood, plastic, glass, metal, water, rock, paper, cardboard, rubber, fabric.
* Properties of materials: hard, soft, shiny, dull, stretchy, rough, smooth, bendy, not bendy, , waterproof, not waterproof, , sharp, stiff.
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| EYFS | **Weather and seasons:** **Seasons**: **spring, summer, autumn, winter**,* **Weather**:. sun, rain, snow, sleet, frost, ice, fog, cloud, **hot/warm**, **cold,** storm, wind, thunder, weather forecast.

**Plants: Introduce/begin to use:*** Names of common plants: **wild plant, garden plant,** , **weed,** grass.
* Name some features of plants: **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.

**Animals including Humans:** Names of a variety of common animals, wild, petHuman and animal body parts: e.g. human, body, head, neck, arms, elbows, legs, knees, face, ears, eyes, nose, hair, mouth, teeth, hands, feet* Human senses: **sight, hearing, touch, smell, taste.**

**Living Things and Their Habitats:****Introduce/begin to use:*** 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, growth,
* Names of habitats and microhabitats: e.g. under leaves, woodland, rainforest, sea shore, ocean,

**Everyday Materials:****Children begin to use:*** 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, , waterproof, not waterproof**, **,** sharp, stiff.
* Other: **object.**
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| Year 1 | **Weather and seasons**: * **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.**

**Animals including humans:** * 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**Everyday Materials:*** 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.**

**Plants:*** 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.

**Living things and their habitats:*** 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.
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| Year 2 | **Weather and seasons**: * **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.**

**Animals including humans:** * 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**, healthy, balanced diet, **hygiene, germs.**
* Food groups: fruit and vegetables, proteins, dairy and alternatives, carbohydrates, oil and spreads, fat, salt, sugar.
* 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.

Previously introduced vocabulary: senses, **carnivore**, **herbivore**, **omnivore**, **seed**, **water**, names of materials.**Materials:*** Changing shape: squash, bend, twist, stretch.
* **Properties** of **materials:** e.g.strong, flexible, light, hard-wearing, elastic.
* Other: **suitability**, recycle, pollution.

.**Plants:*** 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.

Previously introduced vocabulary: **water**, **temperature**, warm, hot, cold, habitat.**Living things and their habitats:*** 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.

Previously introduced vocabulary: senses, **carnivore**, **herbivore**, **omnivore**, **seed**, **water**, names of materials. |
| Year 3 and 4 | **Earth and Space:** * Solar system: **star, planet.**
* Names of planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Neptune, Uranus.
* Shape: **spherical bodies, sphere.**
* Movement: **rotate, axis,** **orbit, satellite.**
* Day length: sunrise, sunset, midday, time zone.

Previously introduced vocabulary: **Sun, moon,** **shadow**, day, night, heat, **light**, **reflect**.**Animals including Humans:*** 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**.

Previously introduced vocabulary: movement.* 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.

Previously introduced vocabulary: **producer,** consumer**, prey, predator,** excretion**,** habitat.**States of Matter:*** **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.

Previously introduced vocabulary: temperature, rain, cloud, snow, wind, sun, hot, cold, absorb, carbon dioxide.**Living Things and Their Habitats:*** 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.**

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. * 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.**

Previously introduced vocabulary: soil, **water**, air.**Properties and Changes in Materials:*** 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.**

Previously introduced vocabulary: soil, **water**, air.**Forces and Magnets:*** 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** (north pole, south pole), **attract, repel,** compass.
* Magnetic and non-magnetic materials: e.g. iron, nickel, cobalt.

Previously introduced vocabulary: metal, names of materials.**Plants:*** 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.

Previously introduced vocabulary: life cycle**.****Light:*** **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.

Previously introduced vocabulary: **opaque, transparent,** sunlight, sun.**Rocks:*** 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.**

Previously introduced vocabulary: soil, **water**, air.**Sound:*** 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.**

**Electricity:*** **Electricity:** mains-powered, battery-powered, **mains electricity,** plug, **appliances**, devices.
* Circuits: **circuit,** simple series circuit, complete circuit, incomplete circuit.
* Circuit parts: bulb, cell, wire, buzzer, switch, motor, **battery.**
* Materials: **electrical conductor, electrical insulator.**
* Other: safety.

Previously introduced vocabulary: names of materials. |
| Year 5 and 6 | **Earth and Space**: * Solar system: **star, planet, constellation, galaxy**
* Phases of the moon: full moon, waxing, waning, crescent, gibbous, first quarter, last quarter
* Theories: **geocentric model, heliocentric model, astronomer.**
* Previously introduced vocabulary: **Sun, moon,** **shadow**, day, night, heat, **light**, **reflect, names of planets, star, planet, rotate, axis,** **orbit, satellite,** sunrise, sunset, midday, time zone.

**Animals including Humans:*** 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.

Previously introduced vocabulary: reproduction, **reproduce,** types of animals and animal groups, **fertilisation.*** **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.

Previously introduced vocabulary: carbon dioxide.**Living Things and their habitats:*** **Reproduction**: **asexual reproduction, sexual reproduction**, **gestation, metamorphosis,** gametes, tuber, runners/side branches, plantlet, cuttings, embryo, adolescent, penis, vagina, egg, pregnancy, gestation.

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* 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.

**States of Matter:**Understand the properties of the different states of matter (solid, liquid and gas) in terms of the particle model.**Evolution and Inheritance:*** **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.

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**.**Properties and Changes in Materials:*** Properties of **materials**: thermal **conductor/insulator,** magnetism, electrical resistance, .
* Changes of materials: reversible change, physical change, irreversible change, chemical change, burning, new material, product.

Previously introduced vocabulary: **transparency**.**,** bulb, **translucent,** dissolving, substance, soluble, insoluble, sieving, filtering, magnetic attraction.**Plants:**Process of reproduction: reproduce, **fertilisation,** fertilise, **stamen,** anther, filament, **carpel (pistil),** stigma, style, ovary, ovule, **sepal**, carbon dioxide.Previously introduced vocabulary: lifecycle, **pollination** (insect/wind), pollen, nectar, pollinator, seed formation, **seed dispersal** (animal/wind/water).**Forces:** * 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), Newtons (N), scales, speed, fast, slow.
* Other: **streamlined**, Earth.

Previously introduced vocabulary:air, heat, moon**Light:*** Reflection: periscope.
* Seeing light: **visible spectrum, prism.**
* How light travels: light waves, wavelength, straight line, **refraction.**

Previously introduced vocabulary: names and properties of materials, absorb.**Sound:*** Parts of the **ear**: **eardrum,** Pinna (outer ear), stirrup, Cochlea, Hammer. Nerve, Eustachian Tube, Anvil

**Electricity:** * Flow and measure of electricity: **voltage, amps, resistance, electrons**, volts (V), **current.**
* Circuits**: symbol,** circuit diagram, component, function, filament.
* Variations: dimmer, brighter, louder, quieter.
* Types of electricity: natural electricity, human-made electricity, solar panels, power station.
* Other: positive, negative.
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| Scientific Enquiry and Working Scientifically |

