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|  | Heather Science Progression (Vocabulary) |  |

National Curriculum statements in green are from other linked areas of the Science curriculum.

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|  |  | Plants  |
| Early learning goal  | Leaf, flower, tree, bush, plant, root, seed, grow, water, soil  |
| Year 1  | Trees - deciduous, evergreen, ash, birch, beech, rowan, common lime, oak, sweet chestnut, horse chestnut, apple, willow, sycamore, fir, pine , holly, etcWild flowering plants - cleavers, coltsfoot, daisy, dandelion, garlic mustard, plantain, red clover, self heal, shepherd’s purse, sorrel, thistle, campion, deadnettle and yarrow.Garden plants – crocus, daffodil, bluebells, etcParts of plants – roots, fruit, branch, trunk, stalk, stem, leaf, flower (blossom), petal, seeds, bulbs and twigs |
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| Year 2  | Need of plants – water, sun light/light, heat, temperatureGrowth, germination, shoot, life cycle, die, wilt, seedling, sample, space, air, healthy, absorb |
| Year 3  | Parts of a flower – petal, stamen (anther + filament), carpel (stigma + style + ovary + ovule), sepalProcesses – pollination, fertilisation, germination, (photosynthesis, chlorophyll)Nutrients, soil, reproduction, transportation, dispersal, flower, anchor, pollen, nectar |
| Year 4  | See (Y4 - Living things and their habitats) See (Y4 - Living things and their habitats) See (Y4 - Living things and their habitats)  |
| Year 5  | See (Y5 - Living things and their habitats)  |
| Year 6  | See (Y6 - Living things and their habitats)  |
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|  | Living Things and Their Habitats  |
| Early learning goal  | Forest school, field, pond, mini beast, bees, spider, bird, fish, pets, fly, snails, slugs, food, shelter, frog, toad |
| Year 1  | See (Y1 - Plants) (Y1 - Animals including humans)  (Y1 - Seasonal change)  |
| Year 2  | Habitat, micro habitat, living, dead, never been alive, never living alive, depend, shelter, safety, survive, suited, Food chain, food sources, producer, consumer, predator, preyPond, meadow, log pile, woodland, river, lake, beach, cliffOrganism – plant, animalInvertebrates – snail, slug, woodlouse, spider, beetle, fly, mini beasts etc.Pond animals – pond skater, water slater, ramshorn snail, pond snail, leech, common frog, smooth newt, etc |
| Year 3  | See (Y3 - Plants)  |
| Year 4  | Habitat, micro habitatPond, meadow, log pile, woodland, river, lake, beach, cliffOrganism, specimen, species – plant, animal, fungi, Key, classification, classify, characteristics, wing case, abdomen, thorax, antenna(e), segments, mandibles, proboscis, prolegs.Environment(al), adapt, natural changes, climate change, deforestation, pollution, urbanisation, invasive species, endangered, extinct |
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| Year 5  | Animals – amphibians, reptiles, birds, mammals, insects, fishAnimal development – egg, larva, pupa, nymph, adult, metamorphosis, runner, embryo, adolescent Parts of a flower – petal, stamen (anther + filament), carpel (stigma + style + ovary + ovule) (Year 3 plants)Processes – pollination, fertilisation, germination (year 3 plants),  |
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| Year 6  | Classification, Linnaeus, Linnaean Systems,Vertebrate, invertebrateKingdoms: animal, plant, ‘micro-organism’, microbe. Microscopic, Classes: amphibian, reptile, bird, mammal, virus, fungi (mould)Scales, feathersFlowering plant, non-flowering plant, variation,  |

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|  |  | Animals Including Humans  |
| Early learning goal  | Neck, head, body, arms, elbows, legs, knees, face, limbs, ears, eyes nose, hair, mouth, nose, tail, wingsSight, sound, touch, taste, smell  |
| Year 1  | Birds, fish, amphibians, reptiles, mammals and invertebratesFeathers, scales, gills, fins, hair, land, water, backbone, skeleton, fur, beaksCarnivores, herbivores, omnivoresMeat, plants(Common parts/structures of animals)(Names of animals that can be found in the school grounds)(Names of animals that the children keep as pets) |
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| Year 2  | Stages of growth of many insects – egg, larva, pupa, adultNames of some invertebrates – ladybirds, butterflies, dragonflies, etcNames of some amphibians – smooth newt, common frog, toadStages of life –baby, toddler, child, teenager, adult, young , offspring, live young, (frog spawn, tadpole, froglet, frog)Life processes – growth, nutrition (feeding), respiration (breathing is part of this)Hygiene – clean, wash, germsFoods – healthy, grow, strong, energy, develop, survival, basic needs, food, air, balanced diet, exercise, fruit, vegetables, proteins, dairy (alternatives), carbohydrates, oils and spreads, fat, salt, sugarChange, hatch, lay, crawl, fly, talk |
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| Year 3  | NutritionDietVitamins, minerals, fats (saturated and unsaturated), proteins, carbohydrates, fibre, energyFunctions of skeletons – protect, support and aid movement, muscles (biceps/triceps), bones (patella, collar bone, femur, tibia, fibula, radius, ulna, humerus, scapula, clavicle, coccyx, cranium, skull, tendons, rib cage, pelvis, joints, organs, contract, relax, vertebrae, spine, exo-skeleton, repair |
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| Year 4  | Digestive system –, oesophagus, stomach, acid, liver, pancreas, gall bladder, duodenum, small intestine, large intestine, rectum, anus, faeces,  excretionTeeth – Incisors, canines, premolars, molars, tongue, wisdom teeth, decay, plaque, enamel, baby (milk) teeth, saliva (glandsFunctionFood chain – producer, consumer, predator, prey (year 2) |
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| Year 5  | Sperm, egg, vagina, cells, penis, scrotum, reproduction, embryo, uterus, foetus, adolescence, puberty, menstruation, adulthood, menopause, life expectancy, old age, hormones, sweat, breasts, larynx, ovaries, genitalia, pubic hair ( Taught through SRE in year 5 and year 6) |
| Year 6  | Circulatory system – circulation, heart, heart beat, heart rate, lungs, breathing, blood, blood vessels, blood cells, , pump, transported, oxygenates blood, deoxygenated blood, capillaries, chambers, atrium, ventricle, veins, arteries, pulse, clotting, valve Diet – calorie, Drugs – caffeine, nicotine, alcohol, cannabis, cocaine, heroin smoking, diseaseLifestyle – healthy |

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|  |  | Evolution and Inheritance  |
| Early learning goal  | Family, mum, dad, grandad/grandma, uncle, aunt, sister, brother, cousin, baby |
| Year 1  |   |
| Year 2  | See Y2 (Living things and their habitats) |
| Year 3  | See (Y3 - Rocks)  |
| Year 4  | See (Y4 - Living things and their habitats)  |
| Year 5  |   |
| Year 6  | Evolution, evolve, inheritance, adaptation, inherit, mutations (adapt/change over time), theory of evolution ancestors, biological parent, genes, Charles Darwin, selective breeding, artificial selection, breed, cross breed, genetically modified food, cloning, DNANatural selectionSurvivalReproductionOffspring, parents, siblingsEnvironmentVariationFossils; ammonites, belemnites, micrasters, etc. |
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|  |  | Seasonal Changes  |
| Early learning goal  | Day, night, daylight Sunny, cloudy, rain, rainbow, Wet, dry, cold, hot, warm, snow  |
| Year 1  | Spring, summer, autumn, winter season, seasonal change Year, months, days mild, damp,sleet, snow, hail, thunder, lightning, frost, ice, fog, cloud, Windy, breezy, gust, stormWeather ForecastTemperatureRain fall, gaugeDegrees CelsiusThermometerWeather vane/wind direction |
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| Year 2  |  |
| Year 3  | See (Y3 - Light)  |
| Year 4  |   |
| Year 5  | See (Y5 - Earth and space)  |
| Year 6  |   |

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|   |  | Materials  |
| Early learning goal  | Paper, wood, sand, plastic, rock, soil, metal, wool, soft, hard, smooth, fluffy, rough, spikey |
| Year 1  | Types of materials: wood, plastic, glass, metal, water, rock, brick, fabric, sand, paper, flour, butter, milk, soilProperties of materials: hard/soft, stretchy/not stretchy, shiny/dull, rough/smooth, bendy/not bendy, transparent/opaque, sticky/not sticky, waterproof/not waterproof, absorbent/not absorbent, sharp, stiff Verbs associated with materials: crumble, squash, bend, stretch, twistSenses: touch, see, hear, smell and taste |
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| Year 2  | Verbs associated with materials: crumble, squash, bend, stretch, twistStrong, flexible, light, hardwearing, elasticSenses: touch, see, hear, smell and tasteSuitability, recycle, pollution  |
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| Year 3  | See (Y3 Rocks)  |
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| Year 4  | States of matter - Solid, liquid, gasExamples of gases (at room temperature and pressure) – Oxygen, hydrogen, helium, carbon dioxide, methane Examples of liquids (at room temperature and pressure) – Water, milk, juice, petrol, oil Examples of solids (at room temperature and pressure) –Wood, rocks, metal, plastic, glass, wool, leather, etc.Processes – Melting, condensation, evaporation, solidifying, freezing, melting/freezing/boiling point, heat and cool, Water cycle Water vapour, Steam, Heating, Cooling, precipitation, bodies of water ( sea, rivers, stream), atmosphereParticles, water droplets, hail  |
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| Year 5  | Thermal conductivity – thermal conductor, thermal insulatorElectrical conductivity – electrical conductor, electrical insulator, resistanceDissolving – Solvent, solution, solute, soluble, insoluble, solid, liquid, particles, suspensions, substanceSeparating materials – Sieve, filter, evaporate, condenseReversible and irreversible changes, physical change, chemical change, burning, new material, product, mixture  |
| Year 6  |   |

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|  |  | Rocks  |
| Early learning goal  | Stone, pebbles, bricks, soil, sand, mud,  |
| Year 1  | See  (Y1 - Everyday materials)  See (Y2 - Uses of everyday materials)  |
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| Year 2  |
| Year 3  | Names of rocks – Chalk, limestone, granite, basalt, sandstone, flint, slate, shale, marbleTypes of rock – Sedimentary, metamorphic, igneousTypes of minerals – Calcite, feldspar, topaz, diamond, talc, corundumProperties of rocks – Hard/soft, permeable/impermeable, durable, semi permeableProcesses – Heat, pressure, erosion, transportation, deposition, melt, solidifySize of rocks – Grain, pebblesRock describing words – Crystals, layersEarly areas of land – Gondwana, PangeaLand formations – Plates, volcanoes, mountains, valleysNatural/human made Molten rock, sediment, erosion, fossilisation, layers, bone, fossil Soil – sandy, chalky, clay, peaty, loamy, top soil, sub soil, bedrock, mineral, organic matter, compost |
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| Year 4  |   |
| Year 5  |   |
| Year 6  | See (Y6 - Evolution and inheritance)  |

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|  |  | Light  |
| Early learning goal  | See, light, eye, night, day, blink, torch, shine, shadow, shade |
| Year 1  | See (Y1 - Animals, including humans)  |
| Year 2  |   |
| Year 3  | Simple comparisons: dark, dull, bright, very bright, Comparative vocabulary: brighter, duller, and darkerSuperlative vocabulary: brightest, dullest, and darkestOpaque, translucent, transparentShadow – block, absence of lightReflect – bounce, mirror, reflection, illuminate, surface, ray, scatter, reverse, beam, angle, See – light sourceSun – sunset, sunrise, position, glare, dangerous, sun safety, UV light, UV rating, sunglasses, directVisible   |
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| Year 4  |   |  |
| Year 5  |   |  |
| Year 6  | Reflection, periscope, spectrum, prism, light waves, wavelength, straight line, refraction |

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|  |  | Sound  |
| Early learning goal  | Loud, quiet, bang, low, high, beat, rhythm,  |
| Year 1  | See (Y1 - Animals, including humans)  |
| Year 2  |   |  |
| Year 3  |   |  |
| Year 4  | Ways to create sound – bang, blow, shake, and pluckLoudness – quiet, quieter, quietest, loud, louder and loudestPitch - low, lower, lowest, high, higher, and highest, volume, amplitude, sound wavesVibrationsSourceEar, ear drum, vocal cords, travel, distance, sound proof, absorb |
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| Year 5  |   |  |
| Year 6  |   |  |

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|  |  | Forces  |
| Early learning goal  | Push,  | Pull, fast, slow, float, sink, up, down, drop. fift, break |
| Year 1  |   |
| Year 2 | See (Y2 - Uses of everyday materials)  |
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| Year 3  | Forces and magnets Magnets – bar and horseshoeAttract, repelNorth and south polesMagnetic field, magnetic force, bar magnet, horse shoe magnet, ring magnet, Move, movement, surface, distance, strength Friction CompassMagnetic/non-magnetic materialsMagnetismIron, copper, aluminium, tin, steel etc.  |
| Year 4  |   |
| Year 5  | Types of forces: gravity, friction, air/water resistance, upthrust, weightMeasuring forces: Newton meter, Newtons (N)ParticlesSurface areaPush, pullBalanceMass, – grams and kilogramsGravitational pull Levers, pulleys, cogs, gears, mechanisms Scale, speed,  |
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| Year 6  |   |

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|  |  | Electricity  |
| Early learning goal  | Plug, socket, lead, lightning, battery |
| Year 1  |   |  |
| Year 2  |   |  |
| Year 3  |   |  |
| Year 4  | Electricity Appliances: fridge, freezer, TV, computer, iron, kettle, etc Series circuit, complete circuit, incomplete circuitComponents: battery, bulb (lamp), bulb (lamp) holder, buzzer, crocodile clip, leads, wires, switch, motorDescribing words: brighter, duller, slow, fast, quiet, loud conductor, insulator , cell.Effects of electricity: Light, sound, movement, heat Switches – open, closeElectrical conductor/insulatorMains/battery powered, plug, devices,  |
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| Year 5  |   |  |
| Year 6  | Electricity, Volts, voltage, amps, electrons, current Series circuitComponents: battery, bulb (lamp), bulb (lamp) holder, buzzer, crocodile clip, leads, wires, switchDescribing words: brighter, duller, slow, fast, quiet, loud, dimmerConductor, insulatorResistanceSymbol, circuit diagram, component, function, filament Natural electrical electricity, man made electricity, solar panels, power station, positive, negative  |

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|  |  | Earth and Space  |
| Early learning goal  | Moon, stars, sun, planet, Earth, sky, day, night, rocket |
| Year 1  | See (Y1 - Seasonal changes)  |
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| Year 2  |   |  |
| Year 3  |   |  |
| Year 4  |   |  |
| Year 5  | Day and night - Earth, axis, rotate, orbit, satellite, midday, time zoneSolar system – Star = Sun, Planets = Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune (Pluto was classified as Dwarf planet in 2006)Phases of the Moon - [full moon](http://www.bbc.co.uk/learningzone/clips/full%20moon), [gibbous moon](http://www.bbc.co.uk/learningzone/clips/gibbous%20moon), [half moon](http://www.bbc.co.uk/learningzone/clips/half%20moon), [crescent moon](http://www.bbc.co.uk/learningzone/clips/crescent%20moon), [new moon](http://www.bbc.co.uk/learningzone/clips/new%20moon), [waxing ,waning](http://www.bbc.co.uk/learningzone/clips/waxing%20waning)[Moon’s orbit](http://www.bbc.co.uk/learningzone/clips/Moon%E2%80%99s%20orbit): [29.5 days](http://www.bbc.co.uk/learningzone/clips/29.5%20days), [lunar month](http://www.bbc.co.uk/learningzone/clips/lunar%20month)Orbit, planets, revolve, sphere, spherical (body) |
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| Year 6  |   |