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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, etc  Wild 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, etc  Parts 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, temperature  Growth, 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), sepal  Processes – 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, prey  Pond, meadow, log pile, woodland, river, lake, beach, cliff  Organism – plant, animal  Invertebrates – 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 habitat  Pond, meadow, log pile, woodland, river, lake, beach, cliff  Organism, 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, fish  Animal 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, invertebrate  Kingdoms: animal, plant, ‘micro-organism’, microbe. Microscopic, Classes: amphibian, reptile, bird, mammal, virus, fungi (mould)  Scales, feathers  Flowering 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, wings  Sight, sound, touch, taste, smell | |
| Year 1 | Birds, fish, amphibians, reptiles, mammals and invertebrates  Feathers, scales, gills, fins, hair, land, water, backbone, skeleton, fur, beaks  Carnivores, herbivores, omnivores  Meat, 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, adult  Names of some invertebrates – ladybirds, butterflies, dragonflies, etc  Names of some amphibians – smooth newt, common frog, toad  Stages 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, germs  Foods – healthy, grow, strong, energy, develop, survival, basic needs, food, air, balanced diet, exercise, fruit, vegetables, proteins, dairy (alternatives), carbohydrates, oils and spreads, fat, salt, sugar  Change, hatch, lay, crawl, fly, talk | |
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| Year 3 | Nutrition  Diet  Vitamins, minerals, fats (saturated and unsaturated), proteins, carbohydrates, fibre, energy  Functions 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,  excretion  Teeth – Incisors, canines, premolars, molars, tongue, wisdom teeth, decay, plaque, enamel, baby (milk) teeth, saliva (glands  Function  Food 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, disease  Lifestyle – 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, DNA  Natural selection  Survival  Reproduction  Offspring, parents, siblings  Environment  Variation  Fossils; 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, storm  Weather Forecast  Temperature  Rain fall, gauge  Degrees Celsius  Thermometer  Weather 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, soil  Properties 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, twist  Senses: touch, see, hear, smell and taste | |
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| Year 2 | Verbs associated with materials: crumble, squash, bend, stretch, twist  Strong, flexible, light, hardwearing, elastic  Senses: touch, see, hear, smell and taste  Suitability, recycle, pollution | |
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| Year 3 | See (Y3 Rocks) | |
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| Year 4 | States of matter - Solid, liquid, gas  Examples 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), atmosphere  Particles, water droplets, hail | |
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| Year 5 | Thermal conductivity – thermal conductor, thermal insulator  Electrical conductivity – electrical conductor, electrical insulator, resistance  Dissolving – Solvent, solution, solute, soluble, insoluble, solid, liquid, particles, suspensions, substance  Separating materials – Sieve, filter, evaporate, condense  Reversible 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, marble  Types of rock – Sedimentary, metamorphic, igneous  Types of minerals – Calcite, feldspar, topaz, diamond, talc, corundum  Properties of rocks – Hard/soft, permeable/impermeable, durable, semi permeable  Processes – Heat, pressure, erosion, transportation, deposition, melt, solidify  Size of rocks – Grain, pebbles  Rock describing words – Crystals, layers  Early areas of land – Gondwana, Pangea  Land formations – Plates, volcanoes, mountains, valleys  Natural/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 darker  Superlative vocabulary: brightest, dullest, and darkest  Opaque, translucent, transparent  Shadow – block, absence of light  Reflect – bounce, mirror, reflection, illuminate, surface, ray, scatter, reverse, beam, angle,  See – light source  Sun – sunset, sunrise, position, glare, dangerous, sun safety, UV light, UV rating, sunglasses, direct  Visible | | |
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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 pluck  Loudness – quiet, quieter, quietest, loud, louder and loudest  Pitch - low, lower, lowest, high, higher, and highest, volume, amplitude, sound waves  Vibrations  Source  Ear, 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 horseshoe  Attract, repel  North and south poles  Magnetic field, magnetic force, bar magnet, horse shoe magnet, ring magnet,  Move, movement, surface, distance, strength  Friction  Compass  Magnetic/non-magnetic materials  Magnetism  Iron, copper, aluminium, tin, steel etc. | |
| Year 4 |  | |
| Year 5 | Types of forces: gravity, friction, air/water resistance, upthrust, weight  Measuring forces: Newton meter, Newtons (N)  Particles  Surface area  Push, pull  Balance  Mass, – grams and kilograms  Gravitational 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 circuit  Components: battery, bulb (lamp), bulb (lamp) holder, buzzer, crocodile clip, leads, wires, switch, motor  Describing words: brighter, duller, slow, fast, quiet, loud conductor, insulator , cell.  Effects of electricity: Light, sound, movement, heat Switches – open, close  Electrical conductor/insulator  Mains/battery powered, plug, devices, | |
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| Year 5 |  |  |
| Year 6 | Electricity, Volts, voltage, amps, electrons, current  Series circuit  Components: battery, bulb (lamp), bulb (lamp) holder, buzzer, crocodile clip, leads, wires, switch  Describing words: brighter, duller, slow, fast, quiet, loud, dimmer  Conductor, insulator  Resistance  Symbol, 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 zone  Solar 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 |  | |