



Science Learning Progression at Northstead CP School

	<b>Animals, including humans</b>	<b>Vocabulary</b>
EYFS	The Natural World ELG	Hair colour, eye colour, height, age
Year 1	<ul style="list-style-type: none"> <li>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</li> <li>Identify and name a variety of common animals that are carnivores, herbivores and omnivores</li> <li>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</li> <li>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</li> </ul>	<ul style="list-style-type: none"> <li>hair, eyes, face, nose, ears, teeth, mouth, head, neck, arm, elbow, hand, leg, knee, foot</li> <li>light, dark, blind, hear, loud, quiet, noisy, sweet, salty, sour, bitter, savoury, skin, rough, smooth, hard, soft, smell, scent, sniff, stench</li> <li>animal, mammal, fur, wild mammal, pet, bird, wings, beak, feathers, webbed feet, flippers, tail, fins, scales, gills, amphibian, frog, toad, newt, reptile, lizard, crocodile, turtle, carnivore, sharp teeth, herbivore, plants, vegetable, fruit, omnivore</li> </ul>
Year 2	<ul style="list-style-type: none"> <li>Notice that animals, including humans, have offspring which grow into adults</li> <li>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</li> <li>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</li> </ul>	<ul style="list-style-type: none"> <li>shelter, heart, exercise, physical health, mental health, healthy diet, unhealthy diet, meat, sugar, germs, hygiene, doctor, disease, plaque, gums, filling</li> <li>offspring, egg, parent, baby, child, teenager, life cycle, adolescent, frogspawn, tadpole, froglet, caterpillar, pupa, butterfly, insect, adult</li> </ul>
Year 3	<ul style="list-style-type: none"> <li>Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat</li> <li>Identify that humans and some other animals have skeletons and muscles for support, protection and movement</li> </ul>	<ul style="list-style-type: none"> <li>skeleton, skull, ribcage, pelvis, femur, spine, antennae, exoskeleton, joint, hinge joint, ball-and-socket joint, muscle, biceps, triceps, contract, relax</li> <li>carbohydrates, proteins, dairy products, fats, fruit and vegetables, balanced diet, balanced meal, nutrition, Eatwell Guide, vegan diet, vegetarian diet, omnivorous diet, pescatarian diet</li> </ul>
Year 4	<ul style="list-style-type: none"> <li>Describe the simple functions of the basic parts of the digestive system in humans</li> <li>Identify the different types of teeth in humans and their simple functions</li> <li>Construct and interpret a variety of food chains, identifying producers, predators and prey</li> </ul>	<ul style="list-style-type: none"> <li>incisors, canines, premolars, molars, enamel, root, decay, digestive system, mouth, oesophagus, stomach, small intestine, large intestine, rectum, saliva</li> <li>producer, consumer, prey, predator, farming, overfishing, hunting</li> </ul>

Year 5	<ul style="list-style-type: none"> <li>• Describe the changes as humans develop to old age</li> </ul>	<ul style="list-style-type: none"> <li>• foetus, elderly adult, milestone, womb, period, reproduce, hormone, puberty, life expectancy, gestation period, gestation</li> </ul>
Year 6	<ul style="list-style-type: none"> <li>• Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</li> <li>• Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</li> <li>• Describe the ways in which nutrients and water are transported within animals, including humans</li> </ul>	<ul style="list-style-type: none"> <li>• circulatory system, blood vessels, arteries, veins, capillaries, red blood cells, white blood cells, lungs, plasma, oxygen, atria, ventricles, right atrium, left atrium, right ventricle, left ventricle, oxygenated blood, deoxygenated blood</li> <li>• calories, saturated fats, unsaturated fats, trans fats, drug, painkiller, depressant, stimulant, cigarette, tar, nicotine, vape, carbon monoxide, addiction, heart rate</li> </ul>

	Living things and their habitats	Vocabulary
EYFS	<ul style="list-style-type: none"> <li>• ELG Then Natural World</li> </ul>	<ul style="list-style-type: none"> <li>• Animal, bird, pet, farm, safari, zoo, move, tail, camouflage, protect, eat, clean, alive, extinct, pattern, endangered</li> </ul>
Year 1	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
Year 2	<ul style="list-style-type: none"> <li>• Explore and compare the differences between things that are living, dead, and things that have never been alive</li> <li>• Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</li> <li>• Identify and name a variety of plants and animals in their habitats, including microhabitats</li> <li>• Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food</li> </ul>	<ul style="list-style-type: none"> <li>• Arctic plants, hibernate, habitat, cactus, desert, rainfall, ocean, seagrass, woodland, fern, moss, microhabitat, spider, snail, diet, food chain, living, dead, never alive</li> </ul>
Year 3	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
Year 4	<ul style="list-style-type: none"> <li>• Recognise that living things can be grouped in a variety of ways</li> <li>• explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment</li> <li>• Recognise that environments can change and that this can sometimes pose dangers to living things</li> </ul>	<ul style="list-style-type: none"> <li>• vertebrate, invertebrate, soft-bodied invertebrate, flowering plant, non-flowering plant, seasonal changes, natural resources, rewilding, nature reserve</li> </ul>
Year 5	<ul style="list-style-type: none"> <li>• Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</li> <li>• Describe the life process of reproduction in some plants and animals</li> </ul>	<ul style="list-style-type: none"> <li>• monotreme, mammary gland, metamorphosis, larva, chrysalis, hatchling, nestling, fledgling, fertilisation, embryo, sperm cells, egg cells, sexual reproduction, anther, stigma, style, filament, ovary, ovule, clone, runner, tuber, asexual reproduction, cutting, parent plant</li> </ul>
Year 6	<ul style="list-style-type: none"> <li>• Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals</li> <li>• Give reasons for classifying plants and animals based on specific characteristics</li> </ul>	<ul style="list-style-type: none"> <li>• organism, excretion, reproduction, mollusc, arachnid, classification, coniferous tree, microorganism, bacteria, virus, fungi, characteristics</li> </ul>

	Plants	Vocabulary
EYFS	ELG The Natural World	Plant, minbeast, frog, grow, seed, roots, leaf, stem, water, sunlight, soil
Year 1	<ul style="list-style-type: none"> <li>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</li> <li>Identify and describe the basic structure of a variety of common flowering plants, including trees</li> </ul>	<ul style="list-style-type: none"> <li>plant, flower, leaf, petals, stem, roots, branch, trunk, wildflower, daisy, garden plant, sunflower, nettle, buttercup, dandelion, deciduous tree, horse chestnut, oak, sycamore, evergreen tree, pine, holly, needles, seed, soil, growth</li> </ul>
Year 2	<ul style="list-style-type: none"> <li>Observe and describe how seeds and bulbs grow into mature plants</li> <li>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</li> </ul>	<ul style="list-style-type: none"> <li>sunlight, compost, herb, blossom, bulb, shoot</li> </ul>
Year 3	<ul style="list-style-type: none"> <li>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</li> <li>Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant</li> <li>Investigate the way in which water is transported within plants</li> <li>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal</li> </ul>	<ul style="list-style-type: none"> <li>water transportation, seedling, seed coating, germination, stamen, pistil, pollen, reproductive organs, pollination, pollinators, wind dispersal, animal dispersal, water dispersal, explosion dispersal, seed dispersal</li> </ul>
Year 4	•	•
Year 5	•	•
Year 6	•	•

	Materials	Vocabulary
EYFS	ELG Creating with materials	Hard, soft, squidgy, wood, plastic, glass, shiny, dull, sort, clear, transparent
Year 1	<ul style="list-style-type: none"> <li>Distinguish between an object and the material from which it is made</li> <li>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</li> <li>Describe the simple physical properties of a variety of everyday materials</li> <li>Compare and group together a variety of everyday materials on the basis of their simple physical properties</li> </ul>	<ul style="list-style-type: none"> <li>material, shiny, dull, rock, heavy, light, object, wood, metal, plastic, glass, wool, solid, liquid, melt, freeze, ice, float, sink, absorb, transparent, opaque</li> </ul>
Year 2	<ul style="list-style-type: none"> <li>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</li> </ul>	<ul style="list-style-type: none"> <li>natural material, human-made material, recycle, flexible, rigid, stone, pebble, brick, brittle, flexible, translucent, tough, lightweight, strong, breakable, waterproof</li> </ul>

	<ul style="list-style-type: none"> <li>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</li> </ul>	
Year 3	•	•
Year 4	•	•
Year 5	<ul style="list-style-type: none"> <li>Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets</li> <li>know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</li> <li>use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</li> <li>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</li> <li>Demonstrate that dissolving, mixing and changes of state are reversible changes</li> <li>Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda</li> </ul>	<ul style="list-style-type: none"> <li>electrical conductor, electrical insulator, thermal insulator, properties, lifespan, dissolve, soluble, insoluble, solution, mixture, reversible changes, reverse, chemical reaction, irreversible change, burning, heating, vinegar, bicarbonate of soda</li> </ul>
Year 6	•	•

	Rocks	Vocabulary
EYFS		Sand, pebbles, change, liquid, material, thick, shape, squash, bones, fossil, skeleton, rock
Year 1	•	•
Year 2	•	•
Year 3	<ul style="list-style-type: none"> <li>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</li> <li>Describe in simple terms how fossils are formed when things that have lived are trapped within rock</li> <li>Recognise that soils are made from rocks and organic matter</li> </ul>	<ul style="list-style-type: none"> <li>granite, pumice, sandstone, chalk, marble, gneiss, crystals, grains, layers, texture, hardness, weathering, fossil, shell, fossilisation, sediment, sandy soil, clay soil, peat soil, chalky soil, organic matter, nutrients, deforestation, habitat loss</li> </ul>
Year 4	•	•
Year 5	•	•
Year 6	•	•

	States of matter	Vocabulary
EYFS	The Natural World Know how materials change when wet	soil, sand, ice, flour, rocks, dry, wet, soggy, absorb,
Year 1	•	•

Year 2	•	•
Year 3	•	•
Year 4	<ul style="list-style-type: none"> <li>• Compare and group materials together, according to whether they are solids, liquids or gases</li> <li>• Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)</li> <li>• Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</li> </ul>	<ul style="list-style-type: none"> <li>• solid, liquid, gas, states of matter, pouring solid, ooblek, flow, freezing, melting, boiling, condensation, evaporation, melting point, water cycle,</li> <li>• precipitation, atmosphere, petri dish</li> </ul>
Year 5	•	•
Year 6	•	•

	Electricity	Vocabulary
EYFS	Know that electricity can make things work	Battery, light switch, plug, socket, danger, on, off, electric, power, charge, wire
Year 1	•	•
Year 2	•	•
Year 3	•	•
Year 4	<ul style="list-style-type: none"> <li>• Identify common appliances that run on electricity</li> <li>• Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</li> <li>• Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery</li> <li>• Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</li> <li>• Recognise some common conductors and insulators, and associate metals with being good conductors</li> </ul>	<ul style="list-style-type: none"> <li>• appliances, plug, socket, cell, electrocuted, circuit, switch, battery, buzzer, conductor, insulator</li> </ul>
Year 5	•	•
Year 6	<ul style="list-style-type: none"> <li>• Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</li> <li>• Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches</li> <li>• Use recognised symbols when representing a simple circuit in a diagram</li> </ul>	<ul style="list-style-type: none"> <li>• series circuit, voltage, current, complete circuit, incomplete circuit</li> </ul>

	Earth and space	Vocabulary
EYFS	<ul style="list-style-type: none"> <li>• Know that the sun shines in the sky and it gives us warmth</li> <li>• Know that we have day and night what these look like</li> </ul>	<ul style="list-style-type: none"> <li>• Night, day, moon, stars, astronaut, planet, space, telescope, Earth, telescope, sky, shine, solar system</li> </ul>

	<ul style="list-style-type: none"> <li>• Know that the moon and stars can be seen from Earth</li> <li>• Know that we live on planet Earth and there are other planets in space</li> <li>• Know that the Earth is a sphere</li> </ul>	
Year 1	•	•
Year 2	•	•
Year 3	•	•
Year 4	•	•
Year 5	<ul style="list-style-type: none"> <li>• Describe the movement of the Earth and other planets relative to the sun in the solar system</li> <li>• Describe the movement of the moon relative to the Earth</li> <li>• Describe the sun, Earth and moon as approximately spherical bodies</li> <li>• Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky</li> </ul>	<ul style="list-style-type: none"> <li>• Solar System, orbit, Sun, planets, Pluto, celestial body, gravity, heliocentric model, geocentric model, rotate, axis, North Pole, South Pole,</li> <li>• Earth, night, day, moon, gravitational force, satellite</li> </ul>
Year 6	•	•

	Seasonal Changes	Vocabulary
EYFS	<ul style="list-style-type: none"> <li>• Clothes</li> <li>• Weather for each season</li> <li>• Changes in the garden</li> </ul>	<ul style="list-style-type: none"> <li>• Spring, Summer, Autumn, Winter, season, day, night, warmer, colder, darker, lighter, frost, rain, sunshine, snow</li> </ul>
Year 1	<ul style="list-style-type: none"> <li>• Observe changes across the 4 seasons</li> <li>• Observe and describe weather associated with the seasons and how day length varies</li> </ul>	<ul style="list-style-type: none"> <li>• autumn, daylight, night, weather, season, rainfall, weather, rain gauge, winter, rainy, snowy, windy, cloudy, frosty, sunny, spring, summer</li> </ul>
Year 2	•	•
Year 3	•	•
Year 4	•	•
Year 5	•	•
Year 6	•	•

	Sound	Vocabulary
EYFS	<ul style="list-style-type: none"> <li>• We hear sounds with our ears</li> <li>• How to make sounds louder and quieter, higher and lower</li> <li>• Explore how different materials make different sounds</li> </ul>	<ul style="list-style-type: none"> <li>• Ears, hear, hearing, loud, loudest, quiet, quietest, sound, noise, volume, pitch, higher, lower</li> </ul>
Year 1	•	•
Year 2	•	•
Year 3	•	•
Year 4	<ul style="list-style-type: none"> <li>• Identify how sounds are made, associating some of them with something vibrating</li> </ul>	<ul style="list-style-type: none"> <li>• vibration, sound, volume, pitch, outer ear, ear bones, cochlea, ear drum, ear canal, decibel, insulate, high-pitched, low-pitched,</li> </ul>

	<ul style="list-style-type: none"> <li>•Recognise that vibrations from sounds travel through a medium to the ear</li> <li>•Find patterns between the pitch of a sound and features of the object that produced it</li> <li>•Find patterns between the volume of a sound and the strength of the vibrations that produced it</li> <li>•Recognise that sounds get fainter as the distance from the sound source increases</li> </ul>	<ul style="list-style-type: none"> <li>background</li> <li>•noise</li> </ul>
Year 5	•	•
Year 6	•	•

	Light	Vocabulary
EYFS	<ul style="list-style-type: none"> <li>•Know that the sun makes light and some human-made objects can make light</li> </ul>	Colour, dark, light, shadow, shiny, reflect, torch, candle, bulb
Year 1	•	•
Year 2	•	•
Year 3	<ul style="list-style-type: none"> <li>•Recognise that they need light in order to see things and that dark is the absence of light</li> <li>•Notice that light is reflected from surfaces</li> <li>•Recognise that light from the sun can be dangerous and that there are ways to protect their eyes</li> <li>•Recognise that shadows are formed when the light from a light source is blocked by an opaque object</li> <li>•Find patterns in the way that the size of shadows change</li> </ul>	<ul style="list-style-type: none"> <li>•light sources, natural light sources, artificial light sources, Sun, sunglasses, protect, reflection, shadow</li> </ul>
Year 4	•	•
Year 5	•	•
Year 6	<ul style="list-style-type: none"> <li>•Recognise that light travels in straight lines</li> <li>•Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye</li> <li>•Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes</li> <li>•Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them</li> </ul>	<ul style="list-style-type: none"> <li>•retina, iris, pupil, lens, ray diagram, solar eclipse, refraction, medium,rainbow, prism, coloured filter, spectrum of light</li> </ul>

	Forces and magnets	Vocabulary
EYFS	<ul style="list-style-type: none"> <li>•Know that some metals stick to magnets</li> <li>•Know that objects fall down because of gravity</li> <li>•Know that objects float in space because there is no gravity.</li> </ul>	<ul style="list-style-type: none"> <li>•Push, pull, metal, magnet, force, gravity, fall, float</li> </ul>
Year 1	•	•

Year 2	•	•
Year 3	<ul style="list-style-type: none"> <li>• Compare how things move on different surfaces</li> <li>• Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance</li> <li>• Observe how magnets attract or repel each other and attract some materials and not others</li> <li>• Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials</li> <li>• Describe magnets as having 2 poles</li> <li>• predict whether 2 magnets will attract or repel each other, depending on which poles are facing</li> </ul>	<ul style="list-style-type: none"> <li>• push, pull, force, contact force, friction, magnet, magnetic, poles,</li> <li>• magnetic force, non-metal, iron, aluminium, steel, attract, repel</li> </ul>
Year 4	•	•
Year 5	<ul style="list-style-type: none"> <li>• Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</li> <li>• Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</li> <li>• Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</li> </ul>	<ul style="list-style-type: none"> <li>• frictional force, motion, air resistance, parachute, surface area, water resistance, streamlined, non-contact force, gravity, weight, lever, gear, pulley, machine</li> <li>▪</li> </ul>
Year 6	•	•

	Evolution and Inheritance	Vocabulary
EYFS	<ul style="list-style-type: none"> <li>• Know that dinosaurs existed because of fossils and skeletons</li> </ul>	<ul style="list-style-type: none"> <li>• Dinosaur, fossil skeleton</li> </ul>
Year 1	•	•
Year 2	•	•
Year 3	•	•
Year 4	•	•
Year 5	•	•
Year 6	<ul style="list-style-type: none"> <li>• Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</li> <li>• Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</li> <li>• Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</li> </ul>	<ul style="list-style-type: none"> <li>• variation, species, inheritance, desirable characteristics, polar habitat, desert habitat, adaptations, evolution, common ancestor, natural selection, finch, Galapagos Islands, decompose, Charles Darwin, palaeontologist, Mary Anning</li> </ul>



## Working Scientifically

	Ask questions	Plan
EYFS	<ul style="list-style-type: none"> <li>• Ask simple questions</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
Year 1	<ul style="list-style-type: none"> <li>• Ask simple questions.</li> </ul>	<ul style="list-style-type: none"> <li>• Verbally state what they are going to investigate.</li> </ul>
Year 2	<ul style="list-style-type: none"> <li>• Ask simple questions and recognise that they can be answered in different ways.</li> </ul>	<ul style="list-style-type: none"> <li>• Make simple predictions based on a question.</li> <li>• Identify what they will change and keep the same.</li> </ul>
Year 3	<ul style="list-style-type: none"> <li>• Ask questions and understand there are different enquiry types they could use to answer them.</li> </ul>	<ul style="list-style-type: none"> <li>• Make relevant predictions.</li> <li>• Identify what they will change, observe and keep the same.</li> <li>• With support, set up simple practical enquiries.</li> </ul>
Year 4	<ul style="list-style-type: none"> <li>• Ask relevant questions and use different types of scientific enquiry to answer them.</li> </ul>	<ul style="list-style-type: none"> <li>• Make predictions based on simple scientific knowledge.</li> <li>• Identify what they will change, observe or measure and keep the same.</li> <li>• Set up simple practical enquiries, comparative and fair tests.</li> </ul>
Year 5	<ul style="list-style-type: none"> <li>• Ask scientific questions and begin to understand which questions would be best suited to each enquiry type</li> </ul>	<ul style="list-style-type: none"> <li>• Make predictions based on scientific knowledge.</li> <li>• With support, plan different types of scientific enquiry. Where appropriate, identify the dependent, independent and controlled variables.</li> </ul>
Year 6	<ul style="list-style-type: none"> <li>• Ask relevant scientific questions and choose which enquiry type would be best suited to answer them.</li> </ul>	<ul style="list-style-type: none"> <li>• Make predictions based on scientific knowledge.</li> <li>• Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</li> </ul>

	Make observations	Take measurements
EYFS	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
Year 1	<ul style="list-style-type: none"> <li>• Observe closely.</li> </ul>	<ul style="list-style-type: none"> <li>• Carry out simple tests using non-standard measurements when appropriate</li> </ul>
Year 2	<ul style="list-style-type: none"> <li>• Observe closely, using simple equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• Perform simple tests using standard units when appropriate</li> </ul>
Year 3	<ul style="list-style-type: none"> <li>• Begin to use scientific equipment to make observations.</li> </ul>	<ul style="list-style-type: none"> <li>• Carry out tests and simple experiments and take measurements using standard units.</li> </ul>
Year 4	<ul style="list-style-type: none"> <li>• Make systematic and careful observations.</li> </ul>	<ul style="list-style-type: none"> <li>• Take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li> </ul>
Year 5	<ul style="list-style-type: none"> <li>• Use a range of scientific equipment to make systematic and careful observations.</li> </ul>	<ul style="list-style-type: none"> <li>• Take accurate measurements using a range of scientific equipment. Start to take repeat readings when appropriate.</li> </ul>

Year 6	<ul style="list-style-type: none"> <li>• Use a range of scientific equipment to make systematic and careful observations with increased complexity.</li> </ul>	<ul style="list-style-type: none"> <li>• Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li> </ul>
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	Gather, record and classify data	Present findings
EYFS	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
Year 1	<ul style="list-style-type: none"> <li>• Gather and record simple data.</li> <li>• Sort objects and living things into groups based on simple properties.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain what they found out to an adult or a partner</li> </ul>
Year 2	<ul style="list-style-type: none"> <li>• Gather and record data to help in answering questions.</li> <li>• Identifying and classifying.</li> </ul>	<ul style="list-style-type: none"> <li>• Talk about what they have found out and how they found it out.</li> <li>• (non-statutory)</li> </ul>
Year 3	<ul style="list-style-type: none"> <li>• Gather and record data in different ways to help answer questions.</li> <li>• Recording findings</li> <li>• using simple scientific language, drawings, labelled diagrams, bar charts, and tables.</li> </ul>	<ul style="list-style-type: none"> <li>• Report on findings from enquiries, including oral and written explanations.</li> </ul>
Year 4	<ul style="list-style-type: none"> <li>• Gather, record and classify data in a variety of ways to help in answering questions.</li> <li>• Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</li> </ul>	<ul style="list-style-type: none"> <li>• Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</li> </ul>
Year 5	<ul style="list-style-type: none"> <li>• Gather, record and classify data with increasing complexity to help in answering questions.</li> <li>• Record data using</li> <li>• scientific diagrams and labels, classification keys, tables, bar and line graphs.</li> </ul>	<ul style="list-style-type: none"> <li>• Report and present findings from enquiries, including conclusions.</li> <li>• Begin to identify causal relationships in oral and written forms such as displays and other presentations.</li> </ul>
Year 6	<ul style="list-style-type: none"> <li>• Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</li> </ul>	<ul style="list-style-type: none"> <li>• Report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations.</li> </ul>

	Answer questions and make conclusions	Evaluate
EYFS		
Year 1	<ul style="list-style-type: none"> <li>• Answer simple questions</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
Year 2	<ul style="list-style-type: none"> <li>• Use their observations and ideas to suggest answers to questions.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
Year 3	<ul style="list-style-type: none"> <li>• Make simple conclusions.</li> <li>• Use results, findings or observations to answer questions.</li> </ul>	<ul style="list-style-type: none"> <li>• Suggest questions for further investigation.</li> </ul>
Year 4	<ul style="list-style-type: none"> <li>• Use straight-forward scientific evidence to answer questions or to support their findings.</li> <li>• Use results to draw simple conclusions.</li> <li>• Begin to identify differences, similarities or changes related to simple ideas or processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Begin to make predictions for new values,</li> <li>• suggest improvements and raise further questions.</li> </ul>
Year 5	<ul style="list-style-type: none"> <li>• Use scientific evidence to answer questions.</li> <li>• Make conclusions based on scientific evidence and from their own testing and findings.</li> <li>• Identify differences, similarities or changes related to simple ideas or processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Make predictions for new values, suggest improvements and raise further questions.</li> </ul>
Year 6	<ul style="list-style-type: none"> <li>• Use scientific evidence to answer questions.</li> <li>• Make conclusions based on scientific evidence and from their own testing and findings.</li> <li>• Identify scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>	<ul style="list-style-type: none"> <li>• Use test results to make predictions to set up further comparative and fair tests.</li> <li>• Suggest investigation improvements including accuracy of results.</li> <li>• Provide some simple examples of how to extend the investigation</li> </ul>

	Key Vocabulary	Exposure words	Sustainability
EYFS			
Year 1	<ul style="list-style-type: none"> <li>• measure, observe, compare, measurement, growth, trowel, temperature, bend, squash, twist, stretch, absorb</li> </ul>	<ul style="list-style-type: none"> <li>• draw, label, change, same, table, record, tally, pipette, size, predict, similar, different, sort, group, identify, pattern, height, number, amount, hand lens, ruler, counting cubes, centimetres, meters, suitable, unsuitable, match, test, scientific enquiry, comparative test, research, pattern seeking</li> </ul>	<ul style="list-style-type: none"> <li>• Earth, helpful, harmful, recycle, reuse, crops, farmer, cook</li> </ul>
Year 2			<ul style="list-style-type: none"> <li>• single-use plastic, wildlife, nature, local</li> </ul>

Year 3	<ul style="list-style-type: none"> <li>•hardness, reaction, bar chart, pictogram, data, increase, decrease, prediction, dissection, scales, filter paper, filter funnel, measuring cylinder,</li> </ul>	<ul style="list-style-type: none"> <li>•draw, label, change, same, table, record, tally, pipette, size, predict, similar, different, sort, group, identify, pattern, height, number, amount, hand lens, ruler, counting cubes,</li> </ul>	<ul style="list-style-type: none"> <li>•food waste, landfill, food waste recycling, edible, inedible, biodiversity, rewilding, endangered, extinct</li> </ul>
Year 4	<ul style="list-style-type: none"> <li>thermometer, conclusion, evaluation, data, volume, decibelmeter, stopwatch, beaker, temperature, Petridish, block chart, bar graph, classifying, classification key</li> </ul>	<ul style="list-style-type: none"> <li>centimetres, meters, suitable, unsuitable, match, test, scientific enquiry, comparative test, research, pattern seeking</li> </ul>	<ul style="list-style-type: none"> <li>•mains electricity, battery-powered, renewable energy, non-renewable energy, energy usage, habitat destruction, palm oil, sustainable</li> </ul>
Year 5	<ul style="list-style-type: none"> <li>•line graph, microscope, anomaly, anomalous result, control, control beaker, sieve, filtering, repeatability, accuracy, correlation, precision, angle, periscope,</li> </ul>	<ul style="list-style-type: none"> <li>•causal relationships, decimals, analyse, interpret, conclude, capacity, mass, approximate, justify, secondary source, evidence, duration, mean, calculate, method</li> </ul>	<ul style="list-style-type: none"> <li>•global warming, greenhouse gases, fossil fuels, climate change, glacier, carbon footprint, plastic pollution, pollution, microplastic</li> </ul>
Year 6	<ul style="list-style-type: none"> <li>line graph, scatter graph, independent variable, dependent variable, controlled variables, duration, theory</li> </ul>		<ul style="list-style-type: none"> <li>•solar power, wind power, solar panels, wind turbine, migration, glare, light pollution, light trespass, sky glow, urban, rural, light emission</li> </ul>