Ellison Primary Academy
Scientific Vocabulary

For children to be able to understand scientific concepts such as structure, function, variation, adaptation, cause and effect, changes, evolution, growth, working scientifically, similarity and difference, energy, process and use them to make connections, draw contrasts, analyse trends, frame scientifically-valid questions and create their own structured responses, they must have a secure grasp of key scientific vocabulary.

Please find below a list of key words that children require to be able to fully access the Science curriculum at Ellison Primary Academy.

	Years 1 and 2	Years 3 and 4 (and as Year 1 and 2)	Years 5 and 6 (and Year 1, 2, 3 and 4)
Tier 2 Scientific vocabulary (Taken from Chris Quigley and National Curriculum)	common names of flowers, examples of deciduous and evergreen trees, and plant structures (including leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem, fish, amphibians, reptiles, birds and mammals, invertebrates and vertebrates, carnivores, herbivores and omnivores, head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth, wood, metal, plastic, glass, brick, rock, paper, cardboard hard/soft; stretchy/stiff;	rock, slate, granite, sandstone chalk, soil, clay, sand limestone, quartz, marble stone, pebble, texture characteristic, surface, skeleton, bones, ribs spine, skull, vertebrate, joint muscle, contract, relax, calcium, collar, x-ray, exoskeleton, endoskeleton ulna, radius, fibula, tibia feeding, growth activity, food groups vegetables, meat, fish cereals, sugars, fats, fruits starches, diet, balanced diet, minerals, nutrients absorb, germinate, wilting dispersal, pollen, seedling,	anomaly, reproducible, gravity air resistance, water resistance, friction surface, effect, accelerate, decelerate brake, mechanism, pulley gear, theory of gravitation, Galileo Galilei, Isaac Newton, dissolve, dissolving, undissolved, solution, mixture, condense, pure, separate, cloudy, filter, earth, sun, moon, star, planet, revolve, axis, rotate, orbit, hemisphere

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	shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent, habitat, microhabitat, environment; seashore, woodland, ocean, rainforest, food chain, offspring, survival, hygiene, egg, chick, chicken; egg, caterpillar, pupa, butterfly; spawn, tadpole, frog; lamb, sheep, baby, toddler, child, teenager, adult, sources of light, electric lights, flames and the Sun.	shadow, opaque direction, light travels translucent, shortest, longest light source, magnet, spring metal, iron, copper aluminium, steel, brass attract, repel, magnetic non-magnetic, attraction repulsion, force, elastic pull towards, push away from, stretch, compress evaporating, melting, freezing condensing, boiling, state water cycle, heating, cooling vapour, solidify, reversible irreversible, steam, sound pitch, loudness, vibrate muffle, source, vibrating soundproof, instrument travel, tension, sound wave blow, strum, pluck, keys, condition, organism, solid liquid, gas, electricity, cell battery, positive terminal negative terminal, motor buzzer, conductor, insulator circuit diagram, resistor electricity, series circuit parallel circuit, switch, current, component, symbol device, fuse wire, electron oesophagus, stomach	poles, equator, crescent, gibbous, eclipse, life cycle carpel, filament, anther process, stages, reproduction, pollinate, fertilisation, stamen, style, stigma, sepal, ovary, prehistoric, animal naturalist, David Attenborough, animal behaviourist, Jane Goodall, reproduction plants: asexual, sexual animals: sexual, retina periscope, convex, concave plane, lens, cornea micro-organism, microbe germ, fungus, bacteria virus, vaccination, hygiene, infection reproduce, decay, rot, mould, yeast, harmful beneficial, epidemic, antibiotic, heartbeat pulse rate, circulation blood vessels, lungs exercise, beneficial, energy, protein carbohydrates, vitamins

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		small and large intestine rectum, bile, stomach acid dissolve, waste, molar, incisor canine, milk teeth, pulp dentist, gums, enamel, decay filling, root, dentine	minerals, drugs, fertiliser, carbon dioxide, food web, oxygen photosynthesis, chlorophyll, adaptation interdependence, suited
Tier 3 Scientific vocabulary (Subject specific – vocabulary – language you want children to use and know the definition of).	Seasons, Winter, Summer, Spring, Autumn, materials, natural, man-made, manufactured bake, bend, twist, stretch squash, heat, cool, freeze melt, boil, change, senses, hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent, offspring, survival, hygiene, egg, chick, chicken; egg, caterpillar, pupa, butterfly; spawn, tadpole, frog; lamb, sheep, baby, toddler, child, teenager, adult, sources of light, electric lights, flames and the Sun. human, adult, baby deciduous, evergreen trees	texture, characteristic, fossil igneous, sedimentary, metamorphic, surface, skeleton, bones, ribs spine, skull, vertebrate, joint muscle, contract, relax, calcium, collar, x-ray, exoskeleton, endoskeleton ulna, radius, fibula, tibia feeding, growth cereals, sugars, fats, fruits starches, balanced diet, minerals, nutrients absorb, germinate, wilting dispersal, pollen, seedling, shadow, opaque direction, light travels translucent, shortest, longest light source, magnet, spring attract, repel, magnetic non-magnetic, attraction repulsion, force, elastic pull towards, push away from, stretch, compress evaporating, melting, freezing	reproducible, gravity air resistance, water resistance, friction surface, effect, accelerate, decelerate brake, mechanism, pulley gear, theory of gravitation, dissolve, dissolving, undissolved, solution, mixture, condense, pure, separate, cloudy, filter, revolve, axis, rotate, orbit, hemisphere poles, equator, crescent, gibbous, eclipse, life cycle carpel, filament, anther process, stages, reproduction, pollinate, fertilisation, stamen, style, stigma, sepal, ovary, prehistoric, animal naturalist,

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	leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem, fish, amphibians, reptiles, birds and mammals, grow living, alive, not living unhealthy, healthy, exercise, taste, sweet, salty sour, force, movement direction, distance, slow fast, high, low, squeeze stretch, push, pull, twist magnetic, variation, consumer, producer, predator, prey, habitat, micro-habitat, minibeast, herbivore, carnivore, omnivore, vertebrate, invertebrate. urban woodland, pond, coast ocean, Artic, tropical desert, reproduce, fruit, earth, accurate prediction, variables- thing you change and keep the same.	condensing, boiling, state water cycle, heating, cooling vapour, solidify, reversible irreversible, steam, sound pitch, loudness, vibrate muffle, source, vibrating soundproof, instrument travel, tension, sound wave blow, strum, pluck, keys, condition, organism, solid liquid, gas, electricity, cell battery, positive terminal negative terminal, motor buzzer, conductor, insulator circuit diagram, resistor electricity, series circuit parallel circuit, switch, current, component, symbol device, fuse wire, electron oesophagus, stomach small and large intestine rectum, bile, stomach acid dissolve, waste, molar, incisor canine, milk teeth, pulp dentist, gums, enamel, decay filling, root, dentine • precise, • hypothesis/prediction, precision, • validity,	animal behaviourist, reproduction plants: asexual, sexual animals: sexual, retina periscope, convex, concave plane, lens, cornea micro-organism, microbe germ, fungus, bacteria virus, vaccination, hygiene, infection reproduce, decay, rot, mould, yeast, harmful beneficial, epidemic, antibiotic, heartbeat pulse rate, circulation blood vessels, lungs exercise, beneficial, energy, protein carbohydrates, vitamins minerals, drugs, fertiliser, carbon dioxide, food web, oxygen photosynthesis, chlorophyll, adaptation interdependence, suited • Accurate • Precise • Anomaly

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		• variables- independent (thing you change), dependent (thing you measure), control (things you control/ keep the same.)	• Hypothesis/ Prediction • Precision • Repeatable • Reproducible • Validity • Variables- Independent (thing you change), dependent (thing you measure), control (things you control/ keep the same.)