

Tickhill Estfeld Primary – Progression in scientific vocabulary

The Early Years and Foundation Stage

EYFS	<p>Working Scientifically: changes, colour, design, difference, environment, find out, living things, materials, objects, places, science, similarity, senses, record, texture, tools, why.</p> <p>Autumn Term 1 – Autumn: autumn, changes, nocturnal, hibernating, conkers, pumpkins, husks, owls, owlets</p> <p>Spring Term 1 – Our Wonderful World: Arctic – winter, melting, freezing, temperature, colder, warmer, snow, ice, polar bear, arctic fox, arctic hare</p> <p>Spring Term2 – Our Wonderful World: Ocean Explorers – sea, ocean, coral reef, fish, mammal, shark, manta ray, manatee, seahorse, sea turtle, scutes, predator prey</p> <p>Summer 1 – Amazing animals: chicks and farm animals – incubator, eggs, hatching, chick, chicken, hen, rooster, life cycle, heat lamp, brooder box, warmth, goose, gosling, cow, calf, sheep, lamb, pig, piglet, goat, kid, horse, foal, duck, duckling.</p> <p>Summer 2 – Exploring secrets of the wild: Minibeasts and Growing plants – dragonfly, snail, bee, crane fly, ant, butterfly, beetle, woodlouse, fly, worm, millipede, ladybird, bark, plants, sky, soil, rocks, habitat, caterpillar, egg, beanstalk, light, water, air, soil, grow, growth, germinate.</p>
-------------	---

Working Scientifically vocabulary

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	answer, changes over time, chart, classify, compare, contrast, criteria, data, describe, diagram, equipment, experiment, group, identify, map, name, observations, observe, patterns, physics, question, record, results, sort, test.	Experiment, answer, changes over time, chart, classify, compare, contrast, criteria, data, describe, diagram, equipment, experiment, group, identify, map, name, observations, observe, patterns, physics, record, results, sort, test.	Biology, Chemistry, Physics accurate measurements, bar charts, careful observation, changes, classify, comparative test, conclusion, construct, data, data logger, differences, drawings, equipment, evidence, fair test, gather, improve, interpret, keys, labelled diagrams, oral explanations, predictions, present, record, relevant	Biology, Chemistry, Physics accurate measurements, bar charts, careful observation, changes, classify, comparative test, conclusion, construct, data, data logger, differences, drawings, equipment, evidence, fair test, gather, improve, interpret, keys, labelled diagrams, oral explanations, predictions, present, record, relevant	Biology, Chemistry, Physics accuracy, argument, bar graphs, relationship, classification keys, classify, comparative test, conclusions, degree of trust, describe, evidence, explanations, fair test, identify, labels, line graphs, measurements, oral explanation, patterns, plan, precision, predictions, presentations, quantitative	Biology, Chemistry, Physics accuracy, argument, bar graphs, casual relationship, classification keys, classify, comparative test, conclusions, degree of trust, describe, evidence, explanations, fair test, identify, labels, line graphs, measurements, oral explanation, patterns, plan, precision, predictions, presentations, quantitative

Working Scientifically ■ Biology ■ Chemistry ■ Physics ■

			questions, research, scientific enquiry, secondary sources, similarities, systematic, tables, thermometer, written explanations.	questions, research, scientific enquiry, secondary sources, similarities, systematic, tables, thermometer, written explanations.	measurements, refute ideas, repeat readings, anomaly, report data, report and present, scatter graphs, scientific diagrams, support, systematic, tables, variables, written display.	measurements, refute ideas, repeat readings, anomaly, report data, report and present, scatter graphs, scientific diagrams, support, systematic, tables, variables, written display.
--	--	--	--	--	--	--

BIOLOGY VOCABULARY

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Plants vocabulary						
	blossom, branches, bud, bulb, common, deciduous tree, evergreen tree, flowers (daffodil, sunflower, tulip, rose, daisy), grow, fruit, garden/flowering plants, leaves, petals, roots, seed, stem, trunk, vegetables, wild plants.	<i>As for Year 1, plus:</i> germination, healthy, light, reproduce, suitable temperature, water.	<i>As for previous years, plus:</i> absorb, anchor, anther, carbon dioxide, competition for resources, evaporate, fertilisation, fertiliser, flowering plant, function, germination, growing and flowering, minerals, nutrients, optimum conditions, ovary, oxygen, photosynthesis, plant life cycle, plant tissues, pollination, pores (stomata), reproduction, requirements, seed dispersal, seed formation, stigma, structure, support, transport, well-aerated soil, well-drained soil.			
Animals, including humans vocabulary						
	amphibians (frogs, toads), arms, birds, body parts, carnivores (meat, cat, dog, lion, tiger, fox, shark, killer whale, eagle, hawk, snake), common animals, ears, elbows, environment, eyes, face, fish, habitat, hair, head, hear, herbivores	adaptation, alive, bright, carnivore, characteristics, cold, conditions, consumer, damp, dark, dead, dry, excrete, feed, food, food chain, grow, habitat, healthy, heat, herbivore, hot, life processes, light, living/non-living, micro-habitat, move,	ankle, arteries, backbone, ball and socket joints, bone, brain, branching blood vessels, capillaries, cardio-vascular system, cartilage, collar bone (clavicle), contract, endoskeleton, exoskeleton, extensor, fibula, finger, fixed joints, flexor, foot, hand,	absorption of food into blood stream, canines, cavities, chemical breakdown by enzymes, chewing, churning in stomach, cutting, dentine, digestion, digestive system, enamel, enzymes, faeces, fluoride toothpaste, gastric	reproduction, birth, chromosomes, death, egg cell (ovum), embryo, fallopian tubes, female gamete, fertilization, gestation, growth, hormones, human development, life cycles, male gamete, menstrual	adrenaline, aerobic respiration, alveoli, aorta, arteries, atrium, blood, blood vessels, bronchi, bronchioles, capillaries, carotid artery, circulatory system, clotting, deoxygenated, diaphragm, gills, haemoglobin, heart,

	(plants, cow, hamster, guinea pig, tortoise), knees, legs, mammals, mouth, neck, omnivores (meat and plants, badger, human, bear, chickens), pets (cats, dogs, fish), reptiles (turtles, snakes, lizards), see, senses, sight, smell, sounds, taste, teeth, touch.	never alive, ocean, omnivore, pond, producer, rainforest, reproduce, respire, respond to stimuli, seashore, shade, shelter, sound, touch, warm, wet, woodland	heart, hinge joints, humerus, involuntary muscles, joints, knee cap (patella), ligaments, minerals, moveable joints, movement, muscles, opposing pairs, pelvis, protection, shoulder blades (scapula), skeletal and muscular systems, radius, relax, ribs, skeletons, skull, sliding joints, spinal cord, sternum, support, thigh bone (femur), tibia, toe, ulna, veins, vertebrates, vitamins, voluntary muscles, wrist.	juice, grinding, gums, incisors, large intestine, molars, nerves, oesophagus, plaque, premolars, pulp cavity, predators, prey, producers, reabsorption of water from waste, ripping, saliva, slicing, small intestine, stomach acid, swallowing, tearing, tooth decay, transports.	cycle, ovaries, ovary, ovulation, penis, placenta, puberty, sexual reproduction, sperm, stigma, testes, uterus, vagina, vertebrates (reptiles, fish, amphibians, birds, mammals).	heart rate, intercostal muscles, lungs, oxygenated, plasma, platelets, pulmonary artery, pulmonary vein, pulse, red blood cells, veins, ventricles, white blood cells, wind pipe (trachea)
--	--	---	---	--	---	--

Living Things and their Habitats vocabulary

		adaptation, alive, bright, carnivore, characteristics, cold, conditions, consumer, damp, dark, dead, dry, excrete, feed, food, food chain, grow, habitat, healthy, heat, herbivore, hot, life processes, light, living/non-living, micro-habitat, move, never alive, ocean, omnivore, pond, producer, rainforest, reproduce, respire, respond to stimuli, seashore, shade, shelter, sound, touch, warm, wet, woodland.		As for Year 2, plus: classification keys, differences, ecologically planned parks, ferns, garden ponds, human impact on the environment (population, development, deforestation, pollution), invertebrates (snails and slugs, worms, spiders, insects), mosses, nature reserves, organism, plant groups (trees, grasses, flowering plants, non-flowering plants), similarities, variation characteristics, vertebrates (fish, amphibians, reptiles, birds, mammals)	As for previous years, plus: anther, asexual reproduction, bud, carpel, chromosomes, cross-pollination, egg cell (ovum), embryo, fertilization, filament, growth, life cycle, microorganisms, ovaries, ovary, petals, sepals, stamens, stigma, style	As for previous years, plus: classification, classification keys, dichotomous/binary keys, five kingdoms (bacteria, protozoa, animals, plants, fungi), genetic variation, invertebrates, vertebrates (reptiles, fish, amphibians, birds, mammals)
--	--	--	--	---	--	---

Evolution and inheritance vocabulary

						adaptation, chromosomes, competition, DNA, environmental conditions, environmental variations, evolution, evolutionary change, features, fossil records, genes, genetic variation, inheritance, natural selection, palaeontologist,
--	--	--	--	--	--	---

						survival of the fittest, variation over time
--	--	--	--	--	--	--

CHEMISTRY VOCABULARY

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Materials vocabulary						
	absorbent/not absorbent, bending, bendy/not bendy brick, elastic, fabrics, foil, gas, glass, hard/soft, liquid, metal, paper, plastic, property, rock, rough/smooth, rigid, shiny/dull, solid, squashing, stretching, stretchy/stiff, twisting, water, waterproof/not waterproof, wood.	As for Year 1, plus: characteristics, classification, man-made, natural, properties	absorbent/not absorbent, appearance, compress, crystalline, crystals, erosion, fossils, fossilisation, grains, hard/soft, layers (strata), molten magma, metamorphic, organic matter, particles, permeability, permeable, physical properties, rough/smooth, sedimentary, shiny/dull, soils.	boiling, changing state, condensation, cooled, degrees Celsius (°C), energy transfer solid, evaporation, fixed shape and volume, forces of attraction, freezing, gaseous, heated, liquid, melting, particles, rate of evaporation, residue, solid, solidify, temperature, thermometer, vibrate, water cycle, water vapour.	burning, change of state, chemical changes, chemical reaction, density, dissolving, elasticity, electrical conductivity, evaporating, filtering, filtrate, gas, hardness, irreversible or hard-to-reverse change, liquid, melting, magnetism, polymer, residue, reversible change, rusting (oxidisation), sieving, solid, solubility, solute, solution, solvent, stiffness, strength, suspension, thermal conductivity, toughness	

PHYSICS VOCABULARY

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
------	--------	--------	--------	--------	--------	--------

Working Scientifically ■ Biology ■ Chemistry ■ Physics ■

Light vocabulary

absence, absorb, artificial, blocked, bright, candle, dark, dim, emit, lamp, light beam, light sources, light spectrum, moon, natural, opaque, rays, reflect, reflection, see, speed of light, straight lines, surface, sunlight, travel, torch, translucent, transparent.

As for Year 3, plus:
absorption, filters, lenses, light source, optics, periscope, prism, rainbow, reflection, refraction, spectrum, transmission

Forces vocabulary

attract, compress, direction of force, faster, floating, flying, force meter, forces, friction, gravity, magnetic, magnetic field, magnetic forces, Newton meter, Newtons (N), non-magnetic, north pole, poles, pull, push, repel, sinking, sliding, slower, south pole, speed, streamlined, stretch, twist

As for Year 3, plus:
air resistance, accelerate, decelerate, drag forces, gears, levers, mechanism, pulleys, springs, gravity, theory of gravitation, transference of force and motion, water resistance.

Sound vocabulary

echo, faint, frequency of vibration, medium, pitch (higher, lower), reflection of sound, sound insulation, sound wave, tuning fork, vacuum, vibration, volume (louder, softer).

Seasonal change

autumn, cold, dark, day length, days, daytime, fog, hail, hot, hours, ice, light, months, moon, movement, rain, shadow, sleet, snow, spring, summer, sun, warm, wind, winter

Earth in Space vocabulary

asteroids, astronomer, axis, celestial body, comets,

					dwarf planet, Earth, Earth's rotation, eclipse, elliptical orbit, gravitational force, heliocentric model of the solar system, galaxy, geocentric model, hemisphere, Jupiter, light year, Mars, Mercury, meteors, moon, movement, Neptune, orbit, phases of the moon, planets, rotate, satellite, Saturn, shadow clock, shooting stars, solar, spherical, star, sun, sundial, time zones, Uranus, universe, Venus.	
Electricity vocabulary						
				appliance, battery, bulbs, buzzers, cell, closed circuit, conductor, crocodile clips, electrical appliances, electrical circuit, insulator, mains power, motors, open circuit, simple series circuit, switches, wires.		As for Year 4, plus: circuit diagrams, components, recognised symbols, series circuit, voltage.

Working Scientifically ■

Biology ■

Chemistry ■

Physics ■