



IMAGINE AND BELIEVE,
INSPIRE AND ACHIEVE



Science Vocabulary Progression document

Farmilo Primary School - Y1 to Y6

September 2024

Vocabulary is one of the threads which runs through every curriculum area; in order to explain a science investigation or describe what they see, children need to have a bank of scientific words. Words are labels for key concepts in science and learning the words is crucial for children's success however teaching them can be challenging as many of the scientific concepts are new to children and are abstract. *K Williams 2019 (Whizz Pop Bang)*

The science lead will be ensuring there is progression across year groups; this should also include scientific vocabulary.

Teachers should think how they can provide:

- science words displayed in classrooms, shared learning areas, role play corners and also outdoor areas
- word mats available for children to use when they are predicting, experimenting, investigating, discussing and evaluating
- words displayed with a definition which the class has written
- picture glossaries – these are perfect for teaching those challenging science vocabulary words without overwhelming children with long, technical definitions

Science Vocabulary Year One

Plants	Animals including humans		Seasonal change	Use of everyday materials	Working scientifically
common wild plants	<u>Parts of the body</u> i.e.	Omnivore, herbivore,	season	object	question
garden plants	head, body, eyes, ears,	omnivore	spring	material	answer
tree	mouth, teeth, leg, tail,	human	summer	wood	observe
deciduous	wing, claw, fin, scales,	head	autumn	plastic	observing
evergreen	feathers, fur, beak,	body	winter	glass	equipment
trunk / bark	paws, hooves	neck	weather	metal	identify
branches		arms, hands, fingers	hot / warm	water	classify
leaf	Names of animals	elbows	cool / cold	rock	sort
root	experienced first-hand	legs	sun / sunny	brick	group
plant	from each vertebrate	knees	cloud / cloudy	clay	record
leaf	group	face	wind / windy	properties	diagram
bud		ears, eyes, nose	rain/ rainy	hard / soft	chart
flowers	<u>Senses:</u>	hair	snow / snowing	stretchy	map
blossom	touch, see, smell, taste,	mouth, tongue	hail / hailing	stiff	data
petal/s	hear, fingers (skin),	teeth	sleet	shiny	compare
root	eyes, nose, ear and	tail	frost	dull	contrast
stem / stalk	tongue	fin	fog / mist	rough / smooth	describe
fruit		scales	ice / icy	bendy / stiff	biology
berry		feathers	rainbow	waterproof	chemistry
vegetables		fur	thunder	absorbent	physics
bulb		beak	lightning	paper	
seed		paw	storm	fabrics	
,		hooves	light / dark	elastic	
		senses – touch, taste,	day / night	foil	
		smell, hear, see	day length	card / cardboard	
				floppy	

Science Vocabulary Year Two

Plants	Animals including humans	Living things and their habitat	Use of everyday materials	Working scientifically
water light shade sun warm cool grow suitable temperature grow healthy germination reproduction	offspring grow/th adults young / old nutrition reproduce / reproduction survival water food air exercise heartbeat breathing hygiene germs disease stages egg-chick-chicken egg-caterpillar-pupa-butterfly spawn-tadpole-frog lamb-sheep baby-toddler-child-teenager-adult examples of food (pasta, bread meat, fish, fruit, vegetables)	living dead never been alive suited / suitable habitats micro-habitats basic needs food food chain sun-grass-cow-human alive healthy logs leaf litter stony path under bushes shelter seashore woodland ocean rainforest conditions hot / warm / cold dry / damp / wet bright / shade / dark	names of materials – increase the range from Y1 properties of materials – as Y1 plus: opaque transparent translucent reflective non reflective flexible rigid shape push / pushing pull / pulling twist / twisting squash / squashing bend / bending stretch / stretching	question answer observe observing equipment identify classify sort group record diagram chart map data compare contrast describe biology chemistry physics

Science Vocabulary Year Three

Plants	Animals including humans	Light	Rocks	Forces & magnets	Working scientifically
structure – flowering plants, roots, stem / trunk, leaves, flowers function – nutrition, support, reproduction, makes own food requirements for life and growth – air, light, water, nutrients from the soil, room to grow, fertiliser life cycle - flowers pollination, seed formation, seed dispersal photosynthesis, pollen insect / wind pollination, seed formation, seed dispersal – wind dispersal, animal dispersal, water dispersal	nutrition nutrients vitamins minerals fat protein carbohydrates sugars fibre water skeletons – support, protection skulls – brain ribs – heart, lungs joint muscles- movement, pull, contract relax	light light source see dark absence of light reflect reflective surface natural star Sun Moon artificial torch candle lamp translucent transparent opaque shiny matt surface shadow reflect mirror sunlight dangerous	rock stone pebble boulder soil layers hard / soft fossil grains crystals hard/ soft texture absorb water marble chalk granite sandstone slate sandy soil clay soil chalky soil peat	Force magnetic force magnetic strength bar magnet ring magnet button magnet horseshoe magnet push pull twist contact non-contact open surface magnet magnetic attract repel magnetic poles north pole south pole metal iron steel	research- relevant questions scientific enquiry comparative and fair test systematic careful observation accurate measurements equipment – thermometer, data logger data- gather, record, classify, present record- drawings, labelled diagrams, keys, bar charts, tables oral and written explanations conclusion predictions differences, similarities, change evidence improve secondary sources guides, keys construct

Science Vocabulary Year Four

Electricity	Animals including humans	Sound	Living things & their habitats	States of matter	Working scientifically
appliances electricity device electrical circuit cell wire bulb buzzer danger electrical safety sign insulators switch open closed components motor mains / plug circuit complete circuit connect battery / positive / negative connections loose connection short circuit clip motor connector metal / non-metal symbol	human digestive system mouth tongue-mixes, moistens, saliva teeth: incisors- cutting, slicing canines- ripping, tearing molars / premolars - chewing, grinding oesophagus transports stomach acid enzymes small intestine large intestine rectum anus carnivore, herbivore, omnivore brush floss food chain Sun producers prey / predators hibernate	sound sound source noise vibrate vibration travel solid liquid gas pitch (high/low) tune high low volume loud quiet fainter muffle vibrations insulation instrument percussion strings brass woodwind tuned instrument	environment flowering non-flowering plants animals vertebrate danger invertebrates- snails, slugs, worms, spiders, insects vertebrates- fish, amphibians, reptiles, birds, mammals plants – flowering plants, non-flowering plants population development litter deforestation classification, / classification keys environment / habitat - human impact, positive, negative migrate	solid liquid gas air oxygen powder grain / granular crystals ice / water/ steam water vapour heated/ heating cooled/ cooling temperature degrees Celsius solidify molten boil state change melting, freezing, melting point, boiling point, evaporation, temperature, water cycle	research- relevant questions scientific enquiry comparative and fair test systematic careful observation accurate measurements equipment – thermometer, data logger data- gather, record, classify, present record- drawings, labelled diagrams, keys, bar charts, tables oral and written explanations conclusion predictions differences, similarities, change evidence improve secondary sources guides, keys construct interpret

Science Vocabulary Year Five

Earth & space	Forces	Animals including humans	Living things & their habitats	Properties and changes	Working scientifically
Earth planets Sun solar system Moon celestial body sphere / spherical rotate / rotation spin night and day star planets Mercury Venus Mars Jupiter Saturn Uranus Neptune Pluto 'dwarf' planet orbit revolve geocentric model heliocentric model shadow clocks sundials astronomical clocks	fall gravity force Earth air resistance water resistance friction moving surfaces mechanisms levers pulleys gears magnetic force magnet attract simple machines	human development baby child toddler teenager adult gestation grow grows growing growth foetus embryo womb gestation elderly development puberty	life process of reproduction plants animals vegetable garden flower border reproduction plants- sexual, asexual animals- sexual life cycles- mammal, amphibian, insect, bird rainforest, oceans, desert prehistoric similarities differences germination pollination stamen stigma life cycle reproduce sperm fertilises egg live young metamorphosis plantlets runners bulbs cuttings	solid , liquid , gas air, oxygen powder grain/ granular /crystals ice/ water/ steam water vapour heated/ heating cooled/ cooling temperature degrees Celsius melt , freeze , solidify melting point molten , boil change of state soluble / insoluble transparency conductive magnets dissolve, solution separate/ing filtering / sieving evaporating reversible changes non reversible evaporation irreversible insulation thermal/electrical insulator/conductor burning, chemical opaque, translucent rusting residue condensing	plan variables measurements accuracy precision repeat repeats record data scientific diagrams labels classification keys tables scatter graphs bar graph line graph predictions further comparative and fair tests report and present conclusions casual relationships explanations degree of trust oral and written display presentation evidence support refute ideas arguments identify, classify and describe patterns systematic quantitative measurements

Science Vocabulary Year Six

Animals including humans	Evolution & inheritance	Electricity	Living things & their habitats	Light	Working scientifically
circulatory system heart blood blood vessels pumps oxygen carbon dioxide lungs nutrients water diet exercise drugs lifestyle pulse rate transported water muscles	evolution suited / suitable adapted / adaptation offspring characteristics vary / variation inherit / inheritance fossils sexual reproduction environment	appliances electrical circuit complete circuit circuit diagram circuit symbol components cell / battery positive/ negative terminal connection loose connection short circuit wire crocodile clip bulb brightness switch buzzer volume motor conductor insulator voltage current resistance danger series circuit	organism micro-organism fungus mushrooms classification keys environment fish amphibians reptiles birds mammals vertebrates invertebrates insects, spiders snails, worms flowering and non-flowering	light travels straight reflect reflection light source object shadows mirrors periscope rainbow filters straight lines light rays	plan variables measurements accuracy precision repeat repeats record data scientific diagrams labels classification keys tables scatter graphs bar graph line graph predictions further comparative and fair tests report and present conclusions casual relationships explanations degree of trust oral and written display presentation evidence support refute ideas arguments identify, classify and describe patterns systematic quantitative measurements