Year 1

Working Scientifically	**Plants**	**Animals including humans**	**Materials**	**Seasonal change**
questions	names of locally found wild plants	names of common animals	object	**season**
answers	names of locally found garden plants	names of common animals (eat other animals)	material	spring
equipment	names of locally found flowering plants	names of common animals (eat plants)	wood	summer
gather	names of locally found trees	names of common animals (eat plants and animals)	plastic	autumn
measure	leaf/leaves	wild animals	glass	winter
record	flower	pets	metal	weather
results	blossom	body	water	hot/warm
sort	petal	head	rock	cool/cold
group	fruit	neck	brick	sun/sunny
test	berry	arms	paper	cloud/cloudy
explore	root	elbows	fabrics	wind/windy
observe	bulb	legs	elastic	rain/rainy
compare	seed	knees	foil	snow/snowing
describe	trunk	face	card/cardboard	hail/hailing
similar/similarities	branch	ears	rubber	sleet
different/differences	stem	eyes	wool	frost
egg timers	bark	eyebrows	clay	fog/mist
ruler	stalk	eyelashes		ice/icy
tape measure	vegetable	nose	hard	rainbow
metre stick	names of flowers grown	hair	soft	thunder
beaker	names of vegetables grown	mouth	stretchy	lightning
pipette		teeth	stiff	storm
syringe		**tongue**	bendy/floppy	light/dark

Essential Science Vocabulary for Key Stage 1 and Key Stage 2

		feet	waterproof	day/night
		toes	absorbent	
		fingers	breaks/tears	
		nails	rough	
		ankle	smooth	
		calf	shiny	
		thigh	dull	
		hips	see through	
		waist	not see through	
		trunk		
		chest		
		shoulders		
		back		
		hands		
		wrist		
		tail		
		wing		
		claw		
		fin		
		scales		
		feathers		
		fur		
		beak		
		senses		
		hear/hearing		
		see/seeing		
		touch/touching		
		smell/smelling		
		taste/tasting		
		rough/smooth		
		bright/dim		
		loud/quiet		

		high/low		
		repeating/continuous (sound)		

Year 2

Working scientifically	Living things and their habitat	Plants	Animals including humans	Materials
pictogram	living	Seeds	offspring	suitable/unsuitable
tally chart	dead	Bulbs	babies	use/useful
block diagram	never been alive	fully grown	young	object
Venn diagram	move	water	grow	material
table	grow	light	change	property
group	feed	damp/wet/dry	adults	wood
test	have offspring/young/babies	dark/light	older/younger	plastic
explore	name local habitats	hot/warm/cool/cold	baby/toddler/child/teenager	glass
observe	e.g. a pond	use comparatives e.g. hotter	basic needs	metal
describe	e.g. a woodland	grow/growth	water	water
similar/similarities	e.g. a meadow	healthy	food	rock
different/differences	name micro-habitats	shoot	air	brick
order	e.g. under log	seedling	breathing	paper
observe changes over time	e.g. on stony path	wither/limp	survival	fabrics
notice patterns	e.g. under bushes	die	exercise	elastic

Essential Science Vocabulary for Key Stage 1 and Key Stage 2

link	damp/wet/dry	dry/crispy	food types	foil
secondary sources	dark/light	soil	fruit and vegetable	card/cardboard
hand lenses	hot/warm/cool/cold	earth	bread, rice, potato, pasta	rubber
stop watch	use comparatives e.g. hotter		milk and dairy foods	wool
	suited/suitable		foods high in fat or sugar	clay
	basic needs		meat, fish, egg, beans	hard
	depend		hygiene	soft
	food		clean	stretchy
	food chain		wash	rigid
	shelter		healthy	flexible
			medicine	waterproof
			drugs	absorbent
				strong/weak
				rough
				smooth
				reflective
				non reflective
				transparent
				opaque

				translucent
				shape
				changed
				push/pushing
				pull/pulling
				twist/twisting
				squash/squashing
				bend/bending
				stretch/stretching
				pinch/pinching
				poke/poking
				roll/rolling
				squeeze/squeezing

Year 3

Working scientifically	Plants	Animals including humans	Rocks	light	force
questions	part	nutrition	rock	light source	push/pushing
types of scientific enquiry	role	nutrients	stone	names of light sources e.g. torch	pull/pulling
answer	leaf/leaves	food types	pebble	dark/darkness	contact force
similarities	flower	fruit and vegetable	boulder	reflect	non contact force
differences	blossom	bread, rice, potato, pasta	soil	reflective	magnetic force
changes	petal	milk and dairy foods	fossils	mirror	magnet
identify	fruit	foods high in fat or sugar	grains	shadow	strength
Classify	berry	meat, fish, egg, beans	crystals	block	bar magnet
sort	root	carbohydrates	hard/soft	direct/ direction	ring magnet
group	bulb	protein	texture	transparent	button magnet
order	seed	vitamins and mineral	absorb water	opaque	horseshoe magnet
observe changes over time	trunk	fat	let water through	translucent	attract
notice patterns	branch	dietry fibre	marble		repel
link	stem	water	chalk		magnetic material
secondary sources	bark	balanced diet	granite		metal
comparative tests	stalk	skeleton	sandstone		iron
fair tests	water	muscles	slate		steel
careful	light	support	sandy soil		non magnetic material
accurate	air	protection	clay soil		poles
observations	nutrients	movement	chalky soil		north pole
questions	soil	skull	peat		south pole

Essential Science Vocabulary for Key Stage 1 and Key Stage 2

answers	fertiliser	ribs
equipment	damp/wet/dry	spine/vertebra
gather	dark/light	joints
measure	hot/warm/cool/cold	sockets
record	use comparatives e.g. hotter	bones
results	grow/growth	tendons
evidence	healthy	
present	transported	
data/evidence/results	life cycle	
keys	pollination	
bar charts	seed formation	
table	seed dispersal	
results		
conclusions		
prediction		
support/not support		
thermometers		
data loggers		
magnifying glass		
microscope		

Year 4

Working scientifically	Living things and their habitat	Animals including humans	Materials	Sound	electricity
questions	classification keys	digestive system	states of matter	sound	appliances/device
types of scientific enquiry	environment	nutrition	solid	sound source	mains
answer	fish	nutrients	liquid	noise	plug
similarities	amphibians	mouth	gas	vibrate/vibration	electrical circuit
differences	reptiles	teeth	air	travel	complete circuit
changes	birds	canines	oxygen	solid/liquid/gas	circuit diagram
increase	mammals	incisor	powder	pitch	circuit symbol
decrease	vertebrates	molar	grain/granular	tune	components
identify	invertebrates	pre-molar	crystals	high/low	cell
classify	name some invertebrates	saliva	change state	volume	battery
sort	human impact	tongue	ice/water/steam	loud/quiet	positive/negative
group	name positive human impact	rip, tear, chew, grind, cut	water vapour	fainter	connect/connection
order	name negative human impact	oesophagus (gullet)	heated/heating	muffle	loose connection
observe changes over time		stomach	cooled/cooling	strength of vibrations	short circuit
notice patterns		small intestine	temperature	insulation	wire
		large intestine	degrees celsius	instrument	crocodile clip
link		rectum	melt	precussion	bulb
secondary sources		anus	freeze	strings	bright/dim
comparative tests		carnivore	solidify	brass	switch
fair tests		herbivore	melting point	woodwind	buzzer

Essential Science Vocabulary for Key Stage 1 and Key Stage 2

careful		ominvore	molten	tuned instrument	motor
accurate		producer	boil		fast(er)/slow(er)
observations		consumer	boiling point		conductor
appearance		predator	evaporate/evaporation		insulator
questions		prey	condense/condensation		metal/non metal
answers		food chain	water cycle		
equipment			precipitation		
gather			transpiration		
measure					
record					
results					
evidence					
present					
data/evidence/results					
keys					
bar charts					
table					
results					
conclusions					
prediction					
support/not support					
thermometers					
data loggers					
magnifying glass					
microscope					

Year 5

Working scientifically	Living things and their habitat	Materials	Forces and magnets	Earth and space
questions	life cycle	hard	magnetic force	Earth
types of scientific enquiry	reproduction	soft	magnet	planets
answer	sexual	stretchy	attract	Sun
similarities	asexual	rigid	fall	solar system
differences	germination	flexible	Earth	Moon
changes	pollination	waterproof	gravity	celestial body
increase	seed formation	absorbent	air resistance	sphere/spherical
decrease	seed dispersal	strong/weak	water resistance	rotate/rotation
identify	pollen	rough	friction	spin
classify	stamen	smooth	moving surfaces	night and day
sort	stigma	reflective	mechanisms	Mercury
group	plantlets e.g. spider plant	non reflective	levers	Venus
order	runners e.g. strawberry plant	transparent	pulleys	Mars
observe changes over time	mammal	opaque	gears	Jupiter
notice patterns	amphibian	translucent	force	Saturn
link	insect	solubility	transfers	Uranus
secondary sources	bird	electrical conductivity		Neptune
Forces and magnets	fish	thermal conductivity		Pluto
comparative tests	reptile	melting		'dwarf' planet
fair tests	eggs	states of matter		orbit
variables	live young	solid		revolve
independent variable		liquid		geocentric model
dependent variable		gas		heliocentric model

Essential Science Vocabulary for Key Stage 1 and Key Stage 2

controlled variable		change state		shadow clocks
careful		dissolve		sundials
		solution		astronomical clocks
accurate		soluble		
accuracy		insoluble		
precision		solute		
degree of trust		solvent		
observations		particle		
questions		mix/mixture		
answers		filtering		
equipment		sieving		
gather		evaporating		
measure		residue		
record				
results		condensing		
evidence		reversible changes		
present		new material		
data/evidence/results		not usually reversible		
keys		burning		
classification keys		gas given off		
bar charts		rusting		
scatter graphs				
line graphs				
table				
results				
conclusions				
causal relationships				
prediction				
support/refute				

thermometers
data loggers
magnifying glass
microscope

Year 6

Working scientifically	Living things and their habitat	Animals including humans	evolution	light	electricity
questions	organism	circulatory system	suited/suitable	light source	appliances/device
types of scientific enquiry	micro-organisms	heart	environment	names of light sources e.g. torch	electrical circuit
answer	fungus	blood	suited	dark/darkness	complete circuit
similarities	mushrooms	blood vessels	adapted/adaptation	reflect	circuit diagram
differences	classification keys	pumps	offspring	reflective	circuit symbol
changes	environment	oxygen	characteristics	mirror	components
increase	fish	carbon dioxide	vary/variation	shadow	cell
decrease	amphibians	lungs	inherit/inheritance	block	battery
identify	reptiles	nutrients	fossils	absorb	positive/negative
classify	birds	water		direct/ direction	terminal
sort	mammals	diet		transparent	connect/connection
group	vertebrates	exercise		opaque	loose connection
order	invertebrates	drugs		translucent	short circuit
observe changes over time	name some invertebrates	lifestyle			wire
notice patterns	arachnid				crocodile clip
link	mollusc				bulb
secondary sources	insect				bright/dim
opinion/fact	crustacean				switch
comparative tests					buzzer
fair tests					volume

Essential Science Vocabulary for Key Stage 1 and Key Stage 2

variables					motor
independent variable					fast(er)/slow(er)
dependent variable					conductor
controlled variable					insulator
careful					metal/non metal
accurate					voltage
accuracy					current
precision					resistance
degree of trust					
observations					
questions					
answers					
equipment					
gather					
measure					
record					
results					
evidence					
present					
data/evidence/results					
keys					
classification keys					
bar charts					
scatter graphs					
line graphs					
table					
results					
conclusions					
causal relationships					

prediction
support/refute
thermometers
data loggers
magnifying glass
microscope

Glossary:

Y2

Pictogram - A pictogram is a chart that uses pictures to represent data.

Tally chart - Tally charts are used to collect data quickly and efficiently. Filling in a chart with marks representing numbers is faster than writing out words or figures and the data is collected into sub-groups immediately, making it easy to analyse.

Venn diagram - A Venn diagram is a way of grouping different items. These groups are known as sets.

Secondary sources - Information that has been produced by somebody else is known as a secondary source

Y3

Fair test - A fair test is a controlled investigation carried out to answer a scientific question

Y4

Precipitation - *Chemistry* The process of separating a substance from a solution as a solid.

Transpiration - how water moves up the plant against gravity in tubes made of dead xylem cells without the use of a pump.

Essential Science Vocabulary for Key Stage 1 and Key Stage 2

Y5

Variable - something that may or does vary or change; a variable feature or factor

Independent variable - An independent variable is a variable that stands alone and isn't changed by the other variables you are trying to measure. For example, someone's age might be an independent variable. Other factors (such as what they eat, how much they go to school, how much television they watch) aren't going to change a person's age.

Dependent variable - a dependent variable is something that depends on other factors. For example, a test score could be a dependent variable because it could change depending on several factors such as how much you studied, how much sleep you got the night before you took the test, or even how hungry you were when you took it. Usually when you are looking for a relationship between two things you are trying to find out what makes the dependent variable change the way it does.

Controlled variable – the variable which is constant and unchanged throughout the course of the investigation. The control variable strongly influences experimental results, and it is held constant during the experiment in order to test the relative relationship of the dependent and independent variables.

Degree of trust – the degree to which an investigation can be repeated to give the same results

Causal relationship - a relationship between one phenomenon or event (A) and another (B) in which
A precedes and causes B. The direction of influence and the nature of the

effect is predictable and reproducible and may be empirically observed. Causality is difficult toprove.

Stamen - The stamen is the pollen-producing reproductive organ of a flower.

Stigma - On a plant, the stigma is the site where the germination of the pollen grains occurs.

Opaque - impenetrable to light; not allowing light to pass through.

Translucent - Transmitting light but causing sufficient diffusion to prevent perception of distinct images.

Solubility - Solubility, degree to which a substance dissolves in a solvent to make a solution

Electrical conductivity - Electrical conductivity is the measure of the amount of electrical current a material can carry or its ability to carry a current.

Essential Science Vocabulary for Key Stage 1 and Key Stage 2

Thermal conductivity - A measure of the ability of a material to allow the flow of heat from its warmer surface through the material to its colder surface

Celestial body – a natural body eg. the moon, visible in space

Geocentric model - The geocentric model places the Earth at the centre of the universe. Common in ancient Greece, it was believed by both Aristotle and Ptolemy. Most Greeks assumed that the Sun, Moon, stars, and planets orbit Earth. Similar ideas were held in ancient China.

Heliocentric model - a model in which the Sun is assumed to lie at or near a central point (e.g., of the solar system) while the Earth and other bodies revolve around it.

Astronomical clock - An astronomical clock is a clock with special mechanisms and dials to display astronomical information, such as the relative positions of the sun, moon, zodiacal constellations, and sometimes major planets.

Y6

Precision - The ability of a measurement to be consistently reproduced.

Arachnid - Arachnids (Arachnida) are a group of arthropods that include spiders, ticks, mites, scorpions and harvestmen. Scientists estimate that there are more than 100,000 species of arachnids alive today.

Mollusc -
any invertebrate of the phylum *Mollusca,* having a soft unsegmented body andoften a shell, secreted by a fold of skin (the mantle). The group includes the gastropods (snails, slugs, etc), bivalves (clams, mussels, etc), and cephalopods (cuttlefish, octopuses, etc)

Crustacean - The crustaceans are a group of marine life that includes crabs, lobsters, and shrimp, which are some of the most important marine life to humans

Variation - Variation in plants and animals. Variation within a species is the way that two animals of the same species display different characteristics and/or behaviour.

Inheritance - The process of genetic transmission of characteristics from parent or ancestor to offspring.

Gene - Genes carry the information that determines your traits, which are features or characteristics that are passed on to you — or inherited from your parents.

Voltage – the push provided by a battery to cause an electric current to flow in a circuit

Current - An electric current is a flow of electric charge.

Resistance - The electrical resistance of an electrical conductor is a measure of the difficulty to pass an electric current through that conductor.