

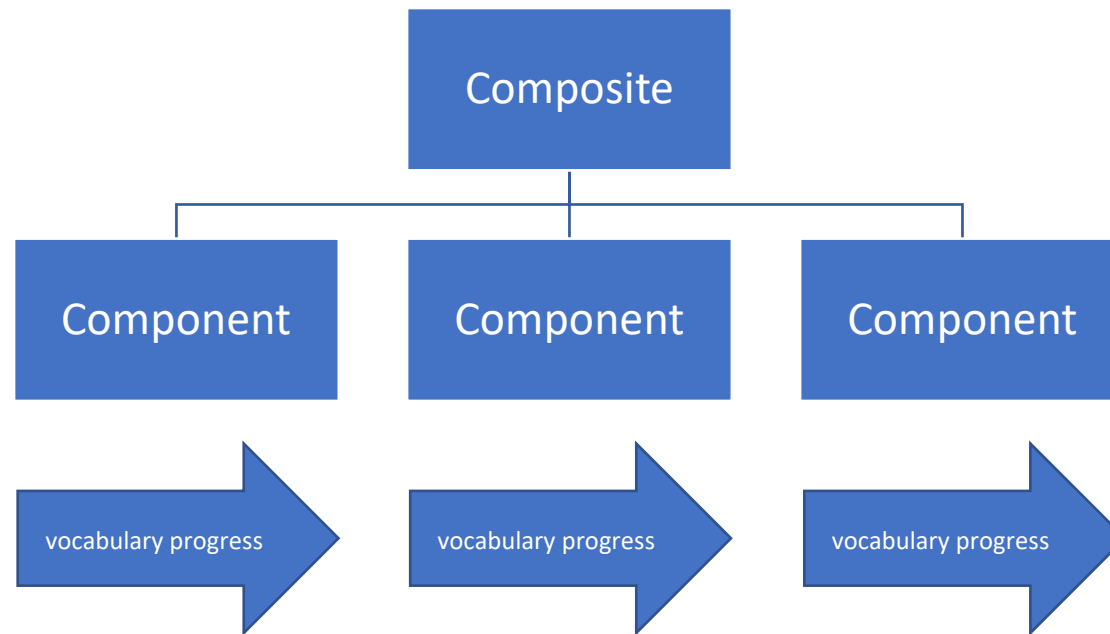


Science

VOCABULARY FRAMEWORK FOR KEY STAGE 1 AND 2

The National Curriculum is the top-level 'composite' outcomes but not the curricular components to get there – the intent. Each component has a skill set that shows progress through each key stage.

Subject leaders need to ensure that there is clear progression through each year group towards the national curriculum requirements for their subject. This document ensures that there is a clear year-on-year acquisition of key vocabulary within each component.



Which words should we teach?

This document ensures that there is a clear year-on-year acquisition of key vocabulary within each component.


Tier 1

- Everyday words
- Most often found in everyday talk
- eg. the 20 most common words: the, be, to, of, and, a, in, that, have, I it, for, not, on, with, he, as, you, do, at

Tier 2

- General academic and literary words
- Most often found in academic speech and texts
- eg. relative, vary, formulate, accumulate, calibrate, itemise, misfortune, dignified, faltered, precede, periphery

Tier 3

- Subject specific words
 - Most often found in Information texts within a specific subject or field
 - eg. lava, ventricle, timbre, circumference, deciduous
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Based on Isabel L. Beck, Margaret G. McKeown, and Linda Kucan (2013) Bringing Words To Life

	Biology				Chemistry				Physics					
	Plants	Animals, including humans	Living things and habitats	Evolution and Inheritance	Rocks	Everyday materials	Properties and changes of materials	States of matter	Light	Sound	Forces and magnets	Seasonal changes	Earth and space	Electricity
Y1														
Y2														
Y3														
Y4														
Y5														
Y6														

National Curriculum coverage

Science						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Working scientifically	above answer area (non-maths meaning) below centre clockwise close to different direction distant down equal to event far further group half high(er) larger least less than low(er) more than most near nearly new(er) non-fiction old(er) pattern point position question research roughly same smaller underneath up whole	amount appearance beyond contains difference distance document exact exactly fair test fractions left nearest property represents right scale similarity stands for strategy symmetrical	acute approximate approximately area (maths meaning) case study corresponding data data logger degrees down equivalent evidence fact group hypothesis impact necessary negative obstacle obtuse opinion outcome parallel positive primary source quantity relationship remainder round secondary source theory up	3D shape terminology accurate base comparative concave convention convex cylindrical decrease exception factor increase intricate negative numbers origin precise reliability rotation spherical statistics systematic translation trend typical unique	abundant cancel out capacity causal complex control correlate crucial dependent diagonal distribution exceptional imperial units maximum million minimum percentage perspective phenomenon reflex angle rigorous rotation sparse sustain variable	appropriate accuracy arc authentic bias circumference concentric controversy cross-section degree of trust diameter intersecting plane plausible proportion radius ratio recurring robust stance tertiary source

Science						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Presentation	list notes sketch table tally template	block diagram jottings plan pictogram record recording tally chart Venn diagram	abbreviations bar charts Carroll diagram column database flow chart frequency table grid present findings row subdivisions	communicate continuous data discrete data format grouped data line graphs plot qualitative quantitative time graphs	average line graph mode range scatter graph	four quadrants mean pie charts
Skills	explore feel guess hear see senses sight smell test touch	collect conclude contrast describe gather link notice order predict rank result sort value	assume clarify compare disprove estimate identify infer interpret introduce observe organise	categorise classify critique hypothesise summarise	generalise inform thinking refute verify	analyse attribute characterise corroborate determine discern epitomise extrapolate
Equipment	beaker clock egg timer magnifying glass metre stick mirror ruler ruler scissors tape measure timer	beaker equipment insect viewer measuring scales net pipette pooter set square stop-watch syringe thermometer tube tweezers weight	apparatus compass cork stopper gauze hand lens hourglass measuring cylinder microscope petri dish protractor test-tube	aquarium forceps pipette	filter funnel paper sieve	

Science													
	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		
Plants	berry blossom branch buds bulb flower food fruit leaf/leaves petal root seed soil stalk stem	trunk	earth (soil) function germinate growth healthy mature nutrients pollination seed dispersal seedling shoot structure vegetation wither		absorb anther carpel fertiliser filament ovary ovule pollen pollination seed formation sepal stamen stigma style transported		deciduous evergreen flowering plants garden plants grasses non-flowering plants plant groups pores trees wild		clone plantlets runners seed formation transpiration				
Animals, including humans	animal baby beak bird claw cub egg eyes family feather fin fish fur mouth neck	mouth neck nest nocturnal pets pup reptile scales tail tame teeth wild wing	adult amphibian bones brain child develop ear lobe eyebrows heart insect live young lungs mammal off-spring skeleton	teenager toddler wrist young	adulthood artery babyhood backbone bones brain childhood contraction heart invertebrates joints muscles offspring ribs skull	sockets spine survival tendons vein vertebrates windpipe	anus breakdown chemical digestion digestive system endoskeleton excrete exoskeleton faeces gastric juices large intestine oesophagus reabsorb reabsorption	rectum saliva salivary gland sewage small intestine stomach	arachnid birth chromosomes crustacean embryo fallopian tubes fertilisation gestation infancy mollusc ovary placenta sponge uterus	zygote	aerobic air sacs alveoli aorta artery blood vessels bronchi bronchioles capillaries carbon dioxide circulatory system clotting deoxygenated diaphragm	gaseous exchange haemoglobin oxygenated plasma pulmonary red blood cells respiratory system respire trachea vein ventricles white blood cells	
Habitats	alive breathe dead feed grow living meat eater move plant feeder shelter within		adapted conditions damp dark dinosaur environment food chain food source habitat indigenous life cycle log microhabitat microscopic pond	predator prey produce reproduce suited surroundings variety woodland	Antarctic Circle Arctic Circle carnivore characteristics climate climate zones consumer desert food web forest grassland herbivore life process omnivore population	producer soil survive temperate tropical tundra vegetation	anemometer barometer biome classification deforestation dominant environmental fungus/fungi invertebrates key mould organism pollution population region	variation vertebrates	asexual reproduction erosion interdependence sexual reproduction topography			microbes microorganism organism	

Science							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Healthy living	emotions exercise fish meat salt(y) sugar sweet taste water	activity balanced diet beans dairy fat fruit germ grains heart rate lifestyle medicine nuts pulse seafood starch	sugar vegetable bacteria carbohydrate dietary fibre food groups hydrated hygiene infection minerals nutrition protection protein starches virus x-ray	canines cavities decay dentin enamel fluoride gums incisors molars nerves plaque pre-molars pulp-cavity tooth decay	menstrual cycle penis puberty testes vagina	carbon monoxide drugs	
Evolution and inheritance						adaptation chromosomes competition DNA dominant genes evolution evolutionary change fossil records genes inherit inheritance natural selection recessive genes species survival of the fittest	
Rocks			boulder chalk clay cobble crystals fossil grains granite granule igneous impermeable lava layers limestone magma	marble metamorphic mineral organic particles pebble permeable porous quartz sand sandstone sedimentary silt slate surface			

Science												
	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6	
Everyday materials	bendy	rock	boiling point	rust	absorb	manufactured						
	boil	rough	elastic	solid	absorbent							
	bright	see-through	flexible	suitable	artificial							
	burn	shiny	function	transparent	characteristic							
	cloudy	smooth	gas	transparent	chemical							
	dim	soft	heat	useful	dissolve							
	dull	stiff	liquid		opaque							
	freeze	strong	man-made		powder							
	glass	water	molten		reflective							
	hard	waterproof	natural		resources							
material	weak	pressure		texture								
melt	wood	property		translucent								
metal		purpose										
object		reflection										
plastic		rigid										
Properties and changes of materials								bicarbonate	reversible			
								buoyancy	separation			
								change	soluble			
								combustion	solute			
								conductor	solution			
								conductivity	solvent			
								filter	suspension			
								filtrate	thermal			
								insulation				
								insulator				
							irreversible					
							change					
							mixture					
							reaction					
							residue					
States of matter					boiling point	solid	helium					
					Celsius	solidify	hydrogen					
					change of	waste	oxidisation					
					state	water cycle	solubility					
					condensation	water vapour	sublimation					
					degree							
					evaporation							
					freezing point							
					gas							
					gaseous							
				liquid								
				melting point								
				molecules								
				oxygen								
				precipitation								

Science						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Light			absorb block crescent moon emit gibbous moon kaleidoscope lens light beam light source light wave mirror new moon phases of moon prism	quarter moon reflect solar system spectrum speed of light sundial wane wax		concave convex cornea iris lens optics pupil refraction retina
Sound				amplitude auditory decibel dynamic echo frequency instruments insulation muffle mute noise pitch pollution sound source sound wave	soundproof tone tuning fork vibrate vibration volume	transmission
Forces and magnets	float pull push sink squash(ing) stretch(ing) twist(ing)		air resistance aluminium attract bar magnet brass button magnet compress copper force force-meter friction gravity horse-shoe magnet iron	magnet magnetic Newton meter nickel non-magnetic North pole repel ring magnet South pole spring steel streamlined		air resistance cams drag forces gears levers mechanisms parachute pulleys surface resistance transference water resistance

Science									
	Year 1		Year 2		Year 3	Year 4	Year 5	Year 6	
Seasonal changes	autumn bright cold dark darkness day dim hot ice length light month moon movement rain	rain gauge rainbow seasons shadow snow spring summer sun sunlight weather wind windsock wind vane winter year	April August daily December equator February fortnight January July June March May monthly November October	poles seasonal September weekly					
Earth and Space							asteroid axis/axes celestial body comet elliptical orbit equator galaxy hemisphere Jupiter latitude light year longitude Mars Mercury meteor	meteorite Neptune orbit Pluto prime Meridian revolve rotation Saturn sphere spherical spin time zone Uranus Venus	astronomical geocentric model of the universe heliocentric model of the universe
Electricity			electricity mains			alligator clip appliances battery bulb buzzer cell circuit close circuit complete circuit components conductor connection crocodile clip device	electrical insulator motor negative open circuit positive resister switch symbol wire	conductivity copper wire current dimmer switch fuse generator parallel circuits power resistance series circuits simple circuits socket terminal volts voltage	