



Vocabulary progression

Receptive vs expressive vocabulary



Receptive vocabulary

The words a person understands when heard or read them. Vocabulary that an individual can recognise and comprehend even if they do not actively use it in conversation or writing.



Expressive vocabulary

The words that a person can actively use in speech or writing to communicate.

Some vocabulary will be used in lessons earlier than indicated in this document and this is done intentionally. Pupils often understand vocabulary receptively *before* they can confidently use it expressively. Lesson plans guide teachers to model new vocabulary before the vocabulary is explicitly taught and before pupils are expected to use it to communicate ideas themselves. At times, the teacher may model the use of new words while pupils may use synonyms.

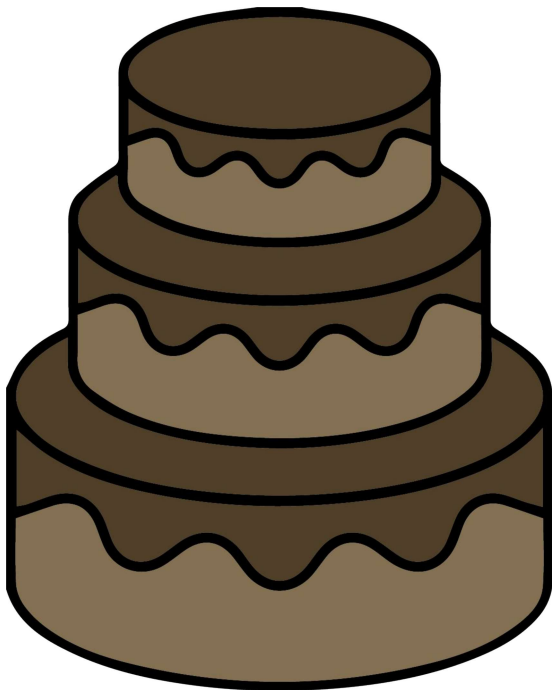
The year groups listed represent when pupils are expected to retain the vocabulary and its meanings and begin to actively use the words in appropriate contexts. The focus is on when vocabulary is used expressively, making it easier for teachers to assess.

Active use of new vocabulary does not necessarily imply complete mastery of each word or concept as understanding continues to evolve and deepen over time. For instance, in Year 1, pupils might recognise the term 'season' as different times of the year characterised by specific weather patterns. By Year 5, they develop a deeper understanding of why seasons occur, exploring the Earth's tilt and its orbit around the Sun.

Choosing words to teach

In selecting the words to include in this vocabulary progression, the 'three-tiers framework' (Beck, McKeown & Omanson, 1987), which advises focusing instruction on tier 2 vocabulary for the most productive gains, has been used.

Words typically classified as tier 1 vocabulary, such as 'bird', are familiar to most learners due to their frequent use in everyday language. However, in Science lessons, it is essential that pupils learn the specific scientific meanings of these words, which often involve more detailed and precise definitions than their general usage. For example, while 'bird' is commonly known as a type of animal, scientifically, it specifically refers to a group of warm-blooded vertebrates with feathers, wings and a beak, most of which are able to fly. Therefore, these kinds of words have been included in the progression.



Tier 3 vocabulary

These words are used infrequently in conversation and their use is often subject-specific. Textbook glossaries usually focus on tier 3 words as they tend to be abstract in nature. They require explicit teaching and contextualisation.

Tier 2 vocabulary

These words are high-utility as they appear across the school curriculum and in written texts. Often, explicit teaching of tier 2 words is not planned for but this can be the most productive place to focus vocabulary instruction.

Tier 1 vocabulary

The most basic words, which typically appear in conversation and are frequently encountered by pupils from an early age. They rarely require explicit teaching because they are already familiar to most pupils.

Vocabulary progression

	Key stage 1		Lower key stage 2		Upper key stage 2	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Working scientifically						
Question Plan and predict	plan (1)	predict	fair (1) investigate investigation method variable	control variable rate	hazard model safety (1) testable	fair test
Observe, test and measure Record	diagram group (1) measure observe sort (1) table (1)	research test (1)	bar chart record results table stopwatch	classify classification key degrees Celsius (3) temperature thermometer (3)	anomaly (3) data estimate line of best fit (3) line graph relationship	mean average scale secondary data/source units
Conclude Evaluate	compare difference (1) pattern (1) similarity	results (1)	conclusion trustworthy	proof/prove	evidence	evaluate reliable
Science in action						
	science scientist	invention		ethics	discovery (1)	theory

The words on this page have been classified as tier 2 vocabulary. Words that may also be considered tier 1 or tier 3 vocabulary are indicated in parentheses. However, it is important to ensure that, in Science lessons, pupils understand the scientific meaning of these words, which may differ from their general usage or usage across other subjects.

Vocabulary progression: Scientific knowledge and understanding

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Plants					
bulb deciduous* evergreen* flower (1) fruit (1) garden plants growth (1) leaf (1) roots (1) seed (1) stem (1) trunk (1) wild plants	germinate energy* (2) nutrient* (2) life cycle* (2) shoot	female (1) flowering plant male (1) pollen pollination reproduction seed dispersal transport (2)	N/A	N/A	N/A

*This word also appears in the vocabulary progression for another key area.

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Vocabulary progression: Scientific knowledge and understanding

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Living things and their habitats					
Animals, including humans					
Sensitive bodies hearing (1) senses (1) sight (1) smell (1) taste (1) touch (1) Comparing animals amphibian bird (1) carnivore diet fish (1) herbivore mammal omnivore reptile	Habitats and Microhabitats alive (1) dead (1) depend (2) energy* (2) food chain (2) habitat (2) life processes microhabitat minibeast predator (2) prey (2) shelter (1) Life cycles and health basic needs egg (1) health (1) hygiene (1) life cycle* (2) live young pupa spawn survive teenager (1) toddler (1) tadpole	Movement and nutrition balanced (diet) (2) bone (1) carbohydrate fat fibre invertebrate joint mineral movement muscle (1) nutrient* protection protein skeleton support vertebrate vitamin	Classification and changing habitats conservation (2) deforestation (2) endangered (2) flowering plants* insect nature reserve non-flowering plants pollution (2) slug snail spider worm Digestion and food canine digest (2) digestive system faeces incisor large intestine molar mouth (1) oesophagus premolar producer* saliva small intestine stomach (1)	Life cycles and reproduction adolescence* (2) asexual reproduction characteristic (2) fertilisation* germination gestation gills incubation lungs* mating metamorphosis offspring ovule pollen* pollination* reproduction* (2) sexual reproduction Human timeline foetus gestation period hormones period (menstruation) puberty	Classifying big and small cold-blooded conifer exoskeleton fern life processes* microorganism moss organism warm-blooded Circulation and health blood (1) bloodstream blood vessels carbon dioxide circulatory system drug heart (1) heart rate oxygen pulse Evolution and inheritance adaptation (2) competition (2) environment (2) environmental (2) evolution (2) extinct (2) fossil* gene inherit inheritance (2) natural selection parent (biological) (1) population (2) selective breeding survival of the fittest (2) variation (2)

The 'Living things and their habitats' and 'Animals, including humans' units share strong connections and overlap. To avoid repetition, the vocabulary from these key areas has been combined into a single progression.

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Vocabulary progression: Scientific knowledge and understanding

Year 1	Year 2	Year 3	Year 4	Year 5			Year 6
Forces, Earth and Space							
deciduous tree* evergreen tree* season (1) weather (1)	N/A	attract (2) contact force force (2) friction (2) magnet (2) magnetic material magnetism (2) non-contact force north pole repel (2) south pole	N/A	celestial bodies day (daytime) gravity (2) moon (1) night (nighttime) orbit (2) phase (2) planet (1) spherical star (1) year	Solar System Mercury Venus Earth Mars Jupiter Saturn Uranus Neptune Pluto	air resistance balanced (2) gear gravity lever pivot pulley surface area unbalanced (2) water resistance	N/A

Year 1	Year 2	Year 3	Year 4		Year 5	Year 6
Energy						
N/A	N/A	cast (a shadow) light source luminous mirror non-luminous opaque reflect reflection reflective (shiny) shadow (1) the Sun translucent transparent	air (1) eardrum insulator* pitch (2) sound vibration volume (2)	appliance battery/cell bulb buzzer circuit (2) electrical conductor* electrical insulator* electricity (1) mains motor power source property* switch (2) wire (1)	N/A	light ray pupil ray diagram reflective cell circuit diagram current resistance voltage

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Vocabulary progression: Scientific knowledge and understanding

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Materials					
absorbent fabric glass (1) metal (1) material object plastic (1) rock (1) tough waterproof (1) wood (1)	elastic flexible (2) property suitable (1)	crystal fossil grain hard hardness rock sediment sedimentary rock sedimentation soft soil	boiling condensing evaporating evaporation rate freezing gas liquid melting precipitation solid steam the water cycle	dissolve filtering (2) insoluble mixture sieving soluble solution burning conductor* electrical conductivity* insulator* irreversible change reversible change rust rusting thermal conductivity transparency	N/A

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