Science Vocabulary

Y1 to Y6

circuit	voltage	brightness	motor
switch	bulb	buzzer	amp
wire	pathway	cell	battery

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

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 / puling 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**	**Materials**	**Living things & their habitats**	**States of matter**	**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	change of state soluble / insoluble transparency conductive response to magnets dissolve liquid solution separate/ing solids, liquids, gases filtering / sieving evaporating reversible changes non reversible changes mixing evaporation melting irreversible conductivity insulation thermal/electrical insulator/conductor, burning, chemical opaque translucent rusting residue condensing	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	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