



Rainbow Education Trust

Science Vocabulary Progression



Please see individual teacher packs for full definitions

Year Group	Working scientifically <i>These are cumulative year on year</i>	Animals Including humans	Materials/ States of matter	Plants	Forces/Space	Light	Living things and their habitats	Seasons		
N	look closely see touch ask tell	egg baby adult duck duckling sheep lamb calf cow puppy dog kitten cat chick dentist teeth brushing unhealthy healthy	warm freeze cool hard runny	change die grow soil seed water sun root warmth seed seedling leaf flower soil flower tree grow water die	twist stretch bend snap move	longer shorter sun torch block shine	life cycle egg chick hatch home baby	rainy sunny windy cold hot frosty snowy foggy cloudy		
R	answer same different listen look question observe compare ask record sort group	mini beasts Insects bugs habitats homes	float sink melt hot cold hard soft smooth rough metal wood paper cardboard plastic glass	woodland grasslands desert polar regions petal flower stem roots	push pull magnets attract repel	light dark shadows	habitat	Summer Spring Winter Autumn		

Year Group	Working scientifically <i>These are cumulative year on year</i>	Plants (Biology)	Seasonal Changes (Biology)	Everyday Materials (Chemistry)	Animals (Biology)	Humans (Biology)	Consolidation & Review			
1	compare describe different/differences equipment explore gather group measure observe changes measure table tally record pipette syringe sponge patterns scientific enquiry investigate test patterns classify	acorn (noun) branch (noun) cone (noun) conker (noun) crop (noun) flower (noun) grow (verb) leaf (noun) living (noun) nectar (noun) nutrition (noun) offspring (noun) petal (noun) plastic (noun) plant (noun) root (noun) reproduce (verb) stem (noun) seedling (noun) transport (verb) trunk: (noun) weed (noun)	autumn (noun) axis (noun) daytime (noun) Earth (noun) moon (noun) Moon (noun) nighttime (noun) sphere / spherical (noun/adjective) season (noun) spring (noun) summer (noun) Sun (noun) weather (noun) winter (noun)	dull (adjective) fabric (noun) glass (noun) hard (adjective) material (noun) metal (noun) object (noun) purpose (noun) plastic (noun) rough (adjective) shiny (adjective) soft (adjective) smooth (adjective) wood (noun)	animal (noun) beak (noun) breathe (verb) characteristic (noun) claw (noun) gills (noun) feathers (noun) fins (noun) legs (noun) limbs (noun) plant (noun) scales (noun) wings (noun)	diet [noun] hard [adjective] hearing [noun/verb] rough [adjective] sight [noun] soft [adjective] smell [noun/verb] smooth [adjective] taste [noun/verb] touch [noun/verb] vegetarian [noun/adjective] vegan: [noun/adjective]	diet [noun] hard [adjective] hearing [noun/verb] rough [adjective] sight [noun] soft [adjective] smell [noun/verb] smooth [adjective] taste [noun/verb] touch [noun/verb] vegetarian [noun/adjective] vegan: [noun/adjective]			
		coniferous (adjective) deciduous (adjective) evergreen (adjective)	coniferous (adjective) Deciduous (adjective) hibernation (noun)	physical property: a characteristic of a material that we can observe (see or feel)		carnivore (noun) herbivore (noun) omnivore (noun) amphibian (noun) bird (noun) fish (noun) mammals (noun) reptiles (noun)	carnivore [noun] herbivore [noun] omnivore [noun]			
Year Group	Working scientifically <i>These are cumulative year on year</i>	Plant Growth (Biology)	Needs of Animals (Biology)	Uses of Materials (Chemistry)	Living Things & Habitats (Biology)	Solids, Liquids & Gases (Chemistry)	Consolidation & Review			

2	<p>block diagram hand lenses patterns observe order pictogram stopwatch table tally chart test venn diagram interpret results research</p>	<p>bulb (noun) dormant (adjective) fruit (noun) greenhouse (noun): grow (verb) leaf(noun) length (noun) root (noun) season (noun) seed (noun) seedling (noun) stem (noun) soil (noun) temperature (noun) thermometer (noun) vegetable (noun) water (noun)</p>	<p>balanced (adjective) bone (noun) diet (noun) energy (noun) exercise (noun) food (noun) grow (verb) hygiene (noun) muscle (noun) natural resource (noun) nutrient (noun) offspring (noun) oxygen (noun) reproduction (noun) temperature (noun) urine (noun) water (noun)</p>	<p>bend [verb] dull [adjective] hard [adjective] recycle [verb] reduce [verb] reuse [verb] rough [adjective] shiny [adjective] smooth [adjective] soft [adjective] squash [verb] stretch [verb] sustainability [noun] twist [verb]</p>	<p>adaptation (noun) alive (adjective) camouflage (noun) dead (adjective) environment (noun) food (noun) growth (noun) movement (noun) nutrition (noun) sensitlivity (noun) shelter (noun)</p>	<p>compress (verb) flow (verb) freezing (verb) gas (noun) global warming (noun) liquid (noun) matter (noun) melting (noun) mixture (noun) solid (noun) states of matter (noun)</p>				
		<p>endosperm (noun) embryo (seed) (noun) germination (noun) seed coat (noun)</p>	<p>aerobic (adjective)</p>	<p>absorbent [adjective] heatproof [adjective] malleable [adjective] waterproof [adjective] windproof [adjective]</p>	<p>biodiversity (noun) excretion (noun) fauna (noun) flora(noun) food chain (noun) habitat (noun) microhabitat (noun) organism (noun) producer (noun) reproduction (noun) species (noun)</p>					

Year Group	Working scientifically <i>These are cumulative year on year</i>	Rocks (Chemistry)	Light (Physics)	Organisms (Biology)	Plants (Biology)	Forces & Motion (Physics)	Magnetism (Physics)			
3	accurate bar charts conclusions evidence fair test identify keys magnifying glass measure comparative observation prediction research patterns classify equipment microscope thermometer data logger stopwatch data evaluate Improve bar magnet ring magnet button magnet horseshoe magnet	appearance (noun) extinction (noun) fossil (noun) grains (noun) impermeable (adjective) minerals (noun) pebble (noun) permeable (adjective) property (noun) rough (adjective) sediment (noun) smooth (adjective) species (1) (noun) soil (noun) surface (noun) weathering (verb)	darkness (noun) emit (verb) matte/dull (adjective) reflection (noun) shadow (noun) shiny (adjective)	contract (verb) dairy (adjective) deficient (adjective) diet (noun) movement (noun) protect (verb) support (verb)	dispersal (noun) life cycle (noun) reproduce (verb) adapt (verb) attract (verb) competition (noun) dispersal (noun) flowering plants (noun) flowers (noun) function (noun) leaves (noun) overcrowding (noun) structure (noun) support (verb)	anomal (noun) anomalous (adjective) balanced (adjective) force (noun) friction noun opposing (adjective) push (verb) pull (verb) repeatable (adjective) reproducible (adjective) speed (noun)	accurate (adjective) attract (verb) repel (verb)			
		anthropic rock (noun) geologist (noun) igneous (adjective) megafauna (noun) metamorphic (adjective) organic matter (noun) palaeontologist (noun) sedimentary (adjective)	control variables (noun) dependent variable (noun) luminous (adjective) independent variable (noun) nonluminous (adjective) opaque (adjective) translucent (adjective) transparent (adjective)	balanced diet (noun) carbohydrate (noun) disease (noun) endoskeleton (noun) exoskeleton (noun) fat (noun) fibre (noun) heart (noun) lungs (noun) mineral (noun) muscle (noun) organ: (noun) protein (noun) vitamin (noun)	fertilisation (noun) germination (noun): nectar: (noun) pollen (noun) pollination (noun) phloem (noun) roots (noun) stem (noun) xylem (noun)	balanced forces (noun) opposing forces (noun) unbalanced forces (noun)	contact force (noun) force (noun) friction (noun) magnet (noun) magnetic field (noun) magnetic force (noun) magnetic poles non-contact force: (noun) north pole (noun) south pole (noun) (The above is not to be confused with the locational 'North Pole and South Pole')			

Year Group	Working scientifically <i>These are cumulative year on year</i>	Classifying Organisms (Biology)	Food & Digestion (Biology)	Particle Models & States of Matter (Chemistry)	Sounds (Physics)	Electricity (Physics)	Properties of Materials (Chemistry)			
4	comparative observation prediction research patterns classify equipment microscope thermometer data logger stopwatch data evaluate improve	amphibian (noun) biodiversity (noun) backbone (noun) bird (noun) characteristic (noun) classification (noun) fish (noun) global warming (noun) greenbelt (noun) habitat (noun) interdependence (noun) mammals (noun) reptiles (noun) species (noun) classification key (noun) cold-blooded (adjective) dichotomous key (noun) endoskeleton (noun) exoskeleton (noun) hydrostatic skeleton (noun) invertebrates (noun) monoculture (noun) vertebrates (noun) warm-blooded (adjective)	absorb (noun) carnivore (noun) churn (verb) chew (verb) consumer (noun) digestion (noun) food chain (noun) herbivore (noun) mouth (noun) nutrients (noun) omnivore (noun) predator (noun) prey (noun) producer (noun) saliva (noun) canines (noun) digestive system (noun) ecosystem (noun) faeces (noun) incisors (noun) large intestine (noun) molars (noun) oesophagus (noun) peristalsis (noun) pre-molars (noun) rectum (noun)	boiling point (noun) condensation (noun) evaporation (noun) gas (noun) hazard (noun) liquid (noun) matter (noun) melting (noun) solid (noun) temperature (noun) variable (noun) hypothesis (noun) particle (noun) precipitation (noun) thermometer (noun)	absorbs (verb) detector (noun) high-pitched: (adjective) low-pitched (adjective) medium (noun) pitch (noun) reflects (verb) source (noun) travel (verb) transmit (verb) vibrate (verb) volume (noun) particles (noun) vacuum (noun)	appliance (noun) buzzer (noun) cell/ battery (noun) component (noun) insulator (noun) lamp (noun) mains electricity (noun) motor (noun) switch (noun) wires (noun) complete circuit (noun) conductor (noun) electrical appliance/device: (noun) electrical circuit: (noun) incomplete circuit: (noun)	elasticity (noun) flammable (adjective) toxic (adjective) chemical property (noun) electrical conductors (noun) electrical insulators (noun) physical property (noun) thermal conductors (noun) thermal insulators (noun)			

Year Group	Working scientifically <i>These are cumulative year on year</i>	Separating Mixtures (Chemistry)	Energy (Physics)	Life Cycles (Biology)	Human Development (Biology)	Forces (Physics)	Earth & Space (Physics)			
5	classify variables control variable dependent variable independent variable scatter graphs force meter justify accuracy comparative observation prediction research patterns	condensation (noun) disperse (verb) dissolve (verb) evaporation (noun) filter paper (noun) funnel (noun) mixture (noun) sieve (noun)	battery (noun) calorie / kcal (noun) coal (noun) diet (noun) fuel (noun) food (noun) natural gas (noun) oil (noun) temperature (noun)	dispersal (noun) generation (noun) habitat (noun) life cycle (noun) reproduce (verb)	adult (noun) adulthood (noun) childhood (noun) egg (noun) gender (noun) infancy (noun) infant (noun) mental (adjective) old age (noun) physical (adjective) retirement (noun) sex (noun) teenager (noun) toddler (noun)	gears (noun) lever (noun) load (noun) machine (noun) pivot (noun) pulley (noun) streamlined (adjective) surface (noun) surface area (noun) weight (noun)	axis (noun) earth (noun): the surface and soil of the world we live on Earth (noun): the planet that we live on gravity (noun) leap year (noun) moon (noun): a natural body (usually rock) that orbits a planet Moon (noun): the name of the moon that orbits the Earth orbit (noun/verb) planet (noun) satellite (noun) sphere / spherical (noun/adjective) star (noun) Sun (Noun) time zone (noun) universe (noun) vacuum (noun)			
		electrical conductors (noun) electrical insulators (noun) insoluble (adjective) irreversible changes (noun) physical property (noun) reversible changes (noun) soluble (adjective) solute (noun) solution (noun) solvent (noun) thermal conductors (noun) thermal insulators (noun)	chemical energy store (noun) energy resource (noun) energy store (noun) energy transfer food chain (noun) thermal energy store (noun)	asexual reproduction (noun) cell (noun) embryo (noun) external fertilisation (noun) fertilisation (noun) genome (noun) gestation (noun) germination (noun) hibernate (verb) internal fertilisation (noun) metamorphosis	adolescence (noun) embryo (noun) fertilisation (conception) (noun) foetus (noun) gestation period – (noun) IVF – (noun) life cycle (noun) pregnancy (noun) puberty (noun) sperm (noun) uterus (noun)	air resistance (noun) effort (noun) force (noun) friction (noun) fulcrum (noun) gravity (noun) mass (noun) motion (noun) Newton (noun) Newton meter (noun) particles (noun) upthrust (noun) water resistance: (noun)	asteroid (noun) celestial body (noun) comet (noun) galaxy (noun) gas planet (noun) heliocentric model (noun) meridian (noun) meteoroid (noun) meteor (noun) meteorite (noun) Milky Way (Noun) rocky planet (noun) Prime Meridian (noun) solar system (noun)			

				(noun) offspring (noun) oviparous (adjective) pollination (noun) sexual reproduction (noun) viviparous (adjective)						
	Working scientifically <i>These are cumulative year on year</i>	Electricity (Physics)	Evolution (Biology)	Light (Physics)	Further Classification (Biology)	Functions of the Human Body (Biology)	Physical & Chemical Changes (Chemistry)			
6	classify variables control variable dependent variable independent variable scatter graphs line graphs force meter justify accuracy comparative observation prediction research patterns causal relationships magnifying glass measure microscope	buzzer (noun) cell/battery (noun) component (noun) coal (noun) electrical appliance/device (noun) electrical circuit (noun) finite (adjective) insulator (noun) lamp (noun) mains electricity (noun) motor (noun) oil (noun) switch (noun) wires (noun)	adaptation (noun) advantage (noun) camouflage (noun) characteristics (noun) competition/competition (noun/verb) environment (noun) variation (noun)	absorption (noun) emit (verb) iris (noun) lens (noun) longsighted (adjective) luminous (adjective) nonluminous (adjective) periscope (noun) prism (noun) pupil (noun) opaque (adjective) reflection (noun) scatter (verb) shadow (noun) shortsighted (adjective) source (noun) transparent (adjective) translucent (adjective) uniform (adjective): (in the context of light)	classification (noun) bacteria (noun) ferns (noun) fungi (noun) insects (noun) virus (noun) endoskeleton: (noun) exoskeleton (noun) appears in Y3 and Y4	cause (noun) correlation (noun) drug (noun) heart (noun) heart rate (noun) medicine (noun)	filter paper (noun) funnel (noun) sieve (noun)			

		<p>complete circuit (noun)</p> <p>conductor (noun)</p> <p>incomplete circuit (noun)</p> <p>natural gas (noun)</p> <p>non-renewable energy resource (noun)</p> <p>renewable energy resource (noun)</p> <p>parallel circuit (noun)</p> <p>series circuit (noun)</p>	<p>behavioural adaptation (noun)</p> <p>evolution (noun)</p> <p>extinct (adjective)</p> <p>fossil (noun)</p> <p>genome (noun)</p> <p>inheritance (noun)</p> <p>natural selection (noun)</p> <p>offspring (noun)</p> <p>palaeontology (noun).</p> <p>physiological adaptation (noun)</p> <p>sexual reproduction (noun)</p> <p>species (noun)</p> <p>structural adaptation (noun)</p>	<p>visible spectrum (noun)</p>	<p>annelids (noun)</p> <p>arachnids (noun)</p> <p>arthropods (noun)</p> <p>dichotomous key (noun)</p> <p>flowering plants (noun)</p> <p>invertebrates (noun)</p> <p>molluscs (noun)</p> <p>mosses: (noun)</p> <p>non-flowering plants (noun)</p> <p>species (noun)</p>	<p>artery (noun)</p> <p>blood vessel (noun)</p> <p>capillary (noun)</p> <p>carbon monoxide (noun)</p> <p>circulatory system: (noun)</p> <p>deoxygenated blood (noun)</p> <p>excretion (noun)</p> <p>lungs (noun)</p> <p>nicotine (noun)</p> <p>oxygenated blood (noun)</p> <p>plasma (noun)</p> <p>platelet (noun)</p> <p>red blood cell (noun)</p> <p>respiration (noun)</p> <p>tar (noun)</p> <p>white blood cell (noun)</p> <p>vein (noun)</p>	<p>combustion (noun)</p> <p>condensation (noun)</p> <p>dissolve (verb)</p> <p>evaporation (noun)</p> <p>insoluble (adjective)</p> <p>irreversible changes (noun)</p> <p>mixture (noun)</p> <p>reversible changes (noun)</p> <p>soluble (adjective)</p> <p>solute (noun)</p> <p>solution (noun)</p> <p>solvent (noun)</p>			
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