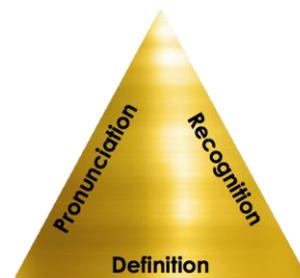


Year 8 Keywords



Instructions:

- **LOOK** - The keywords are written in the column titled recognition, what they mean is written in the definition column
- **SAY** – The pronunciation column is there to help you with pronouncing these new words
- **COVER** – Cover up the keyword with your hand or a piece of paper etc.
- **WRITE** - Try to re-write the keyword and definition from memory into your planner
- **CHECK** – Check using your knowledge organiser if the word and definition are 100% correct including spellings.
- **REPEAT** – Make sure you do each word correctly at least 3 times to help you memorise it.

	<u>Recognition</u>	<u>Pronunciation</u>	<u>Definition</u>
Working Scientifically	Hypothesis	<i>Hi-poh-th-eh-sis</i>	A proposal intended to explain certain facts or observations
	Independent Variable	<i>In-dep-en-dent Vare-ee-a-ble</i>	What you change
	Dependent Variable	<i>Deep-end-ent Vare-ee-a-ble</i>	What you measure
	Control Variable	<i>Con-t-roll Vare-ee-a-ble</i>	What you keep the same
	Risk Assessment	<i>Rih-sk Ass-ess-men-t</i>	Judging whether there are any hazards, what the risk of them is and what safety precautions can reduce them
	Hazard	<i>Hah-zar-d</i>	Something with the potential to cause harm
	Risk	<i>Rih-sk</i>	The chance that the hazard may cause harm to people
	Safety Precaution	<i>Say-ff-tea Pree-caw-shone</i>	A process to minimise the risk of a hazard
	Method	<i>Meh-th-od</i>	Step by step instructions for how to complete an experiment.
	Results Table	<i>Re-zul-tz Tay-ble</i>	Data recorded from your experiment of the values of the dependent variables as you change the independent variable.
	Graph	<i>Graa-ff</i>	A visual representation of the relationship between the independent and dependent variables.
	Conclusion	<i>Con-clue-zuh-on</i>	A summary of how your results support or contradict your original hypothesis
Chapter 1	Equilibrium	<i>Ee-quil-ib-ree-um</i>	State of an object when opposing forces are balanced.
	Deformation	<i>De-form-a-sh-on</i>	Changing shape due to a force.
	Linear Relationship	<i>Lin-ee-r Rel-a-shone-ship</i>	When two variables are graphed and show a straight line which goes through the origin, and they can be called directly proportional.
	Newton	<i>New-ton</i>	Unit for measuring forces (N).
	Resultant Force	<i>Rez-ull-tant Fuh-or-ss</i>	Single force which can replace all the forces acting on an object and have the same effect.
	Friction	<i>Frik-sh-on</i>	Force opposing motion which is caused by the interaction of surfaces moving over one another. It is called 'drag' if one is a fluid.
	Tension	<i>Ten-sh-on</i>	Force extending or pulling apart
	Compression	<i>Com-pre-sh-on</i>	Force squashing or pushing together.
	Contact Force	<i>Con-tack Fuh-or-ss</i>	One that acts by direct contact.
	Fluid	<i>Floo-id</i>	A substance with no fixed shape, a gas or a liquid

Chapter 2	Pressure	<i>Pre-shh-or</i>	The ratio of force to surface area, in N/ m ² , across a liquid.
	Stress	<i>St-ruh-ess</i>	The ratio of force to surface area, in N/ m ² , across a solid.
	Upthrust	<i>Up-thru-st</i>	The upward force that a liquid or gas exerts on a body floating in it.
	Atmospheric Pressure	<i>At-moss-fair-ick</i> <i>Pre-shh-or</i>	The pressure caused by the weight of the air above a surface
	Weight	<i>Way-tuh</i>	How heavy something is, measured in kilograms
	Displace	<i>Dis-play-ss</i>	To move something from its position and take its place.
Chapter 3	Non-contact Force	Non-con-tack-t Four-ss	A force which acts on an object without coming physically in contact with it. E.g. Magnetism
	Attractive	<i>At-rac-tive</i>	To cause an object to move towards another
	Repulsive	<i>Re-pulse-ive</i>	To drive or force back away
	Magnetic Field	<i>Mag-net-ick</i> <i>Fee-ld</i>	The area around a magnetic in which a magnetic force acts.
	Magnetic Poles	<i>Mag-net-ick</i> <i>Puh-oh-lzz</i>	The ends of a magnetic field, called north-seeking (N) and south-seeking poles (S)
	Induced	In-Juiced	Bring about or give rise to
Chapter 4	Permanent Magnet	<i>Per-man-ent</i> <i>Mag-net</i>	An object that is magnetic all of the time
	Electromagnet	<i>Ee-leck-tro-</i> <i>mag-net</i>	A non-permanent magnet turned on and off by controlling the current through it.
	Solenoid	<i>Soll-eh-noy-d</i>	Wire wound into a tight coil, part of an electromagnet.
	Core	<i>Cuh-orr-d</i>	Soft iron metal which the solenoid is wrapped around.
	Conductor	Con-duck-tor	Materials that permit electrons to flow freely from particle to particle
Chapter 5	Current	Cuh-rent	Flow of charges from positive to negative
	Work	<i>Wuh-erk</i>	The transfer of energy when a force moves an object, in joules.
	Lever	<i>Lee-ver</i>	A type of machine which is a rigid bar that pivots about a point.
	Input Force	<i>In-put Fuh-or-ss</i>	The force you apply to a machine.
	Output Force	<i>Out-put</i> <i>Fuh-or-ss</i>	The force that is applied to the object moved by the machine.
	Displacement	<i>Diss-place-men-</i> <i>t</i>	The distance an object moves from its original position.
Chapter 6	Deformation	<i>De-form-a-sh-on</i>	When an elastic object is stretched or squashed, which requires work
	Thermal Conductor	<i>Th-er-mal</i> <i>Con-duck-tor</i>	Material that allows heat to move quickly through it.
	Thermal Insulator	<i>Th-er-mal</i> <i>In-sul-a-tor</i>	Material that only allows heat to travel slowly through it.
	Temperature	<i>Temp-er-ah-ture</i>	A measure of the motion and energy of the particles
	Thermal Energy	<i>Th-er-mal</i> <i>En-er-gy</i>	The quantity of energy stored in a substance due to the vibration of its particles.
	Conduction	<i>Con-duck-sh-on</i>	Transfer of thermal energy by the vibration of particles
	Convection	<i>Con-vec-sh-on</i>	Transfer of thermal energy when particles in a heated fluid rise
Chapter 7	Radiation	<i>Ray-dee-a-sh-</i> <i>on</i>	Transfer of thermal energy as a wave.
	Ultrasound	<i>Ul-tra-sound</i>	Sound waves with frequencies higher than the human auditory range
	Ultraviolet	<i>Ul-tra-vigh-o-let</i>	Waves with frequencies higher than light, which human eyes cannot detect
	Microphone	<i>My-crow-phone</i>	Turns the pressure wave of sound hitting it into an electrical signal
	Loudspeaker	<i>Loud-speaker</i>	Turns an electrical signal into a pressure wave of sound
Chapter 7	Pressure wave	<i>Presh-orr</i> <i>Way-v</i>	An example is sound, which has repeating patterns of high-pressure and low-pressure regions

Chapter 8	Waves	<i>Way-v-z</i>	Vibrations that transport energy from place to place without transporting matter
	Transverse Wave	<i>Tranz-ver-ss Way-v</i>	Where the direction of vibration is perpendicular to that of the wave
	Transmission	<i>Trans-mish-on</i>	Where waves travel through a medium rather than be absorbed or reflected
Chapter 9	Periodic Table	<i>Peer-ee-od-ick Tay-ble</i>	Shows all the elements arranged in rows and columns
	Physical Properties	<i>Phys-ih-cle Prop-er-tees</i>	Features of a substance that can be observed without changing the substance itself
	Chemical Properties	<i>Chem-ih-cle Prop-er-tees</i>	Features of the way a substance reacts with other substances
	Groups	<i>Groo-ps</i>	Columns of the periodic table
	Periods	<i>Peer-ee-ods</i>	Rows of the periodic table
Chapter 10	Elements	<i>Ell-eh-men-ts</i>	What all substances are made up of, and which contain only one type of atom
	Atom	<i>Ah-tomz</i>	The smallest particle of an element that can exist
	Molecules	<i>Mol-eh-cue-lz</i>	Two to thousands of atoms joined together. Most non-metals exist either as small or giant molecules
	Compound	<i>Com-pow-n-dz</i>	Pure substances made up of two or more elements strongly joined together
	Chemical Formula	<i>Chem-ick-le Form-u-lah</i>	Shows the elements present in a compound and their relative proportions
	Polymer	<i>Pol-ee-mer</i>	A molecule made of thousands of smaller molecules in a repeating pattern. Plastics are man-made polymers, starch is a natural polymer
	Ceramic	<i>Seh-ram-ick</i>	A hard, brittle, heat and corrosion-resistant material made by shaping and then heating a nonmetallic mineral, such as clay.
Chapter 11	Catalysts	<i>Cat-a-list</i>	Substances that speed up chemical reactions but are unchanged at the end
	Exothermic Reaction	<i>X-oh-ther-mick Ree-ac-sh-on</i>	One in which energy is given out, usually as heat or light
	Endothermic Reaction	<i>N-doh-ther-mick Ree-ac-sh-on</i>	One in which energy is taken in, usually as heat
	Chemical Bond	<i>Chem-ih-cal Bond</i>	Force that holds atoms together in molecules
Chapter 12	Fuel	<i>Few-lz</i>	Stores energy in a chemical store which it can release as heat
	Chemical Reaction	<i>Chem-ih-cle Ree-ac-sh-on</i>	A change in which a new substance is formed
	Physical Change	<i>Phys-ih-cle Ch-ain-ge</i>	One that changes the physical properties of a substance, but no new substance is formed
	Reactants	<i>Ree-act-ants</i>	Substances that react together, shown before the arrow in an equation
	Products	<i>Prod-uc-ts</i>	Substances formed in a chemical reaction, shown after the reaction arrow in an equation
	Conserved	<i>Con-serve-d</i>	When the quantity of something does not change after a process takes place
Chapter 13	Global Warming	<i>Glow-bal Warm-ing</i>	The gradual increase in surface temperature of the Earth
	Fossil Fuels	<i>Foss-il Few-els</i>	Remains of dead organisms that are burned as fuels, releasing carbon dioxide
	Carbon Sink	<i>Car-bon Sing-k</i>	Areas of vegetation, the ocean or the soil, which absorb and store carbon
	Greenhouse effect	<i>Green-house Ee-feck-t</i>	When energy from the sun is transferred to the thermal energy store of gases in Earth's atmosphere

Chapter 14	Natural Resources	<i>Nat-your-all Ree-soar-ces</i>	Materials from the Earth which act as raw materials for making a variety of products
	Mineral	<i>Min-er-als</i>	Naturally occurring metal or metal compound
	Ore	<i>Or</i>	Naturally occurring rock containing sufficient minerals for extraction
	Extraction	<i>Ex-track-shone</i>	Separation of a metal from a metal compound
	Recycling	<i>Re-cycle-ing</i>	Processing a material so that it can be used again
	Electrolysis	<i>Ee-leck-trol-ee-sis</i>	Using electricity to split up a compound into its elements
Chapter 15	Sub-cellular	<i>Ss-ub Sell-you-lar</i>	Smaller than a cell
	Cell	<i>Sell</i>	The unit of a living organism, contains parts to carry out life processes
	Organelles	<i>Or-gan-ell-z</i>	A specialized part of a cell having some specific function
	Tissue	<i>Tiss-you</i>	Group of cells of one type
	Organs	<i>Or-gan-z</i>	Group of different tissues working together to carry out a job
	Organ Systems	<i>Or-gan Sistem</i>	Groups of organs working together to carry out a bodily function.
	Breathing	<i>Breath-ing</i>	The movement of air in and out of the lungs
	Trachea	<i>Track-ee-ah</i>	Carries air from the mouth and nose to the lungs
	Bronchi	<i>Bron-key</i>	Two tubes which carry air to the lungs
	Bronchioles	<i>Bron-key-olz</i>	Small tubes in the lung
	Alveoli	<i>Alv-ee-oh-lee</i>	Small air sacs found at the end of each bronchiole
	Ribs	<i>Rib-s</i>	Bones which surround the lungs to form the ribcage
	Diaphragm	<i>Die-a-fram</i>	A sheet of muscle found underneath the lungs
	Capillaries	<i>Cap-ill-ah-reez</i>	Any of the fine branching blood vessels that form a network between the arterioles and venules
	Diffusion	<i>Diff-you-zhon</i>	The spreading of something from an area of high concentration to low concentration.
	Carcinogen	<i>Car-sin-oh-gin</i>	A substance capable of causing cancer in living tissue.
	Ciliated cell	<i>Cill-ee-a-ted Sell</i>	Cells that are covered in tiny hair-like projections known as cilia
	Lung Volume	<i>Lung Vol-you-m</i>	Measure of the amount of air breathed in or out
Chapter 16	Diet	<i>Die-et</i>	The kinds of food that a person, animal, or community habitually eats.
	Exercise	<i>Ex-er-size</i>	Activity requiring physical effort, carried out to sustain or improve health and fitness.
	Drugs	<i>Dr-ugg-z</i>	A medicine or other substance which has an effect introduced to the body.
	Enzymes	<i>N-zy-mz</i>	Substances that speed up the chemical reactions of digestion
	Dietary Fibre	<i>Diet-ry Figh-ber</i>	Parts of plants that cannot be digested, which helps the body eliminate waste
	Carbohydrates	<i>Carb-oh-hyd-rates</i>	The body's main source of energy. There are two types: simple (sugars) and complex (starch)
	Lipids	<i>Lip-ids</i>	A source of energy. Found in butter, milk, eggs, nuts
	Protein	<i>Pro-tean</i>	Nutrient your body uses to build new tissue for growth and repair. Sources are meat, fish, eggs, dairy products, beans, nuts and seeds
	Fibre	<i>Fi-ber</i>	Dietary fibre is the parts of plants that cannot be digested, which helps the body eliminate waste.
	Oesophagus	<i>Oh-soff-a-guss</i>	The oesophagus takes food from your mouth to your stomach
	Stomach	<i>Stom-ack</i>	A sac where food is mixed with acidic juices to start the digestion of protein and kill microorganisms
	Small Intestine	<i>Small Int-est- een</i>	Upper part of the intestine where digestion is completed and nutrients are absorbed by the blood

	Large Intestine	<i>Large Int-est-eeen</i>	Lower part of the intestine from which water is absorbed and where faeces are formed
	Soluble	<i>Soll-you-ball</i>	Able to be dissolved
	Gut Bacteria	<i>Gut Bact-ear-e-ah</i>	Microorganisms that naturally live in the intestine and help food break down
Ch. 17	Aerobic Respiration	<i>Air-oh-bick Res-peer-a-sh-on</i>	Breaking down glucose with oxygen to release energy and producing carbon dioxide and water
	Anaerobic Respiration	<i>An-air-oh-bick Res-peer-a-sh-on</i>	Releasing energy from the breakdown of glucose without oxygen, producing lactic acid (in animals) and ethanol and carbon dioxide (in plants and microorganisms)
Chapter 18	Fertilisers	<i>Fert-ill-i-zay-sh-on</i>	Chemicals containing minerals that plants need to build new tissues
	Photosynthesis	<i>Photo-sin-th-sis</i>	A process where plants and algae turn carbon dioxide and water into glucose and release oxygen
	Chlorophyll	<i>Claw-oh-fill</i>	Green pigment in plants and algae which absorbs light energy
	Stomata	<i>Stom-ah-tah</i>	Pores in the bottom of a leaf which open and close to let gases in and out
Chapter 19	Population	<i>Pop-you-lay-sh-on</i>	Group of organisms of the same kind living in the same place
	Natural Selection	<i>Nat-your-al Sel-eck-sh-on</i>	Process by which species change over time in response to environmental changes and competition for resources
	Extinct	<i>Ex-tink-sh-on</i>	When no more individuals of a species remain
	Biodiversity	<i>Bio-dive-er-city</i>	The variety of living things. It is measured as the differences between individuals of the same species, or the number of different species in an ecosystem
	Competition	<i>Comp-eh-tish-on</i>	When two or more living things struggle against each other to get the same resource
	Evolution	<i>Ev-oh-loo-sh-on</i>	Theory that the animal and plant species living today descended from species that existed in the past
Chapter 20	Inherited Characteristics	<i>In-hair-it-ed Cah-rack-ter-is-tick</i>	Features that are passed from parents to their offspring
	DNA	<i>D-N-A</i>	A molecule found in the nucleus of cells that contains genetic information
	Chromosomes	<i>Chrome-oh-zo-mm</i>	Thread-like structures containing tightly coiled DNA
	Gene	<i>Jean</i>	A section of DNA that determines an inherited characteristic