Chemistry **Glossary**

acid:	An acid has a pH value of less than 7; a strong acid will turn universal indicator red.
alkali:	An alkali has a pH value of more than 7; a strong alkali will turn universal indicator blue.
argon:	A gas that makes up 1% of the Earth's atmosphere.
atmosphere:	The blanket of gas surrounding the Earth.
atom:	The smallest part of an element - made up of a proton, a neutron and electrons.
atomic mass:	The number of protons and neutrons in an element.
atomic number:	The number of protons an element has.
base:	A substance that neutralises an acid but does not dissolve in water.
biological weathering:	Caused by animals and plants forcing their way through the rocks.
boiling point:	The temperature at which a liquid changes into a gas.
burette:	A glass tube with a tap at one end, so that a known volume of liquid can be measured.
carbon dioxide:	A gas required by plants to carry out photosynthesis; makes up 0.04% of the Earth's atmosphere.
catalyst:	Speeds up the rate of reaction without being used up in the reaction.
cementation:	The compacting together of different pieces of rocks.
chemical formula:	Shows the type and number of atoms in a chemical - for example, CO_2 has one carbon atom and two oxygen atoms.
chemical weathering:	When rocks are eroded by a reaction between chemicals and the rock - for example, limestone - is eroded by acid rain.
chromatography:	A separating technique that works on mixtures of liquids; can be useful for analysing paints and dyes.
citric acid:	The acid that is commonly found in lemons.
collisions:	When particles start to bump into each other; the more collisions, the faster the rate of reaction.
combustion:	Burning, with the use of oxygen.
compaction:	The squashing together of bits of rock to form new rocks.
complete combustion:	The burning of a fuel in a plentiful supply of oxygen; the products are carbon dioxide and water.
compounds:	Consist of two or more elements chemically combined - for example, CO_2 and H_2O.
concentrated:	A substance is concentrated if it has a high proportion of that substance compared to other substances in the solution.
condense:	A change of state from a liquid to gas.
core:	The inner part of the Earth; consists of the inner and outer core.

corrosive:	May dissolve or burn.
crust:	The outer part of the Earth; the part we live on.
deforestation:	The cutting down of trees.
deposition:	The dropping of sediment.
diffusion:	The movement of particles in a liquid or gas from a concentrated area to a less concentrated area.
dilute:	A solution is often diluted by the addition of water.
dissolve:	When a substance mixes completely with a solvent.
distillation:	A separating technique that involves boiling points, evaporating and condensing to separate a mixture of liquids - for example, ink and water.
electrons:	These make up part of an atom and have a negative charge.
elements:	These consist of only one type of atom and they cannot be split into anything simpler. Each atom has a name and formula - for example, Sodium is Na.
endothermic reaction:	Involves a decrease in temperature; sports injury cold packs use endothermic reactions.
energy:	Energy can be stored and transferred from place to place. There are many different types of energy - for example, heat, light and kinetic energy.
erosion:	The breaking down of rocks into smaller pieces.
evaporation:	When a liquid changes into a gas.
exothermic reactions:	Involving a temperature increase; combustion and neutralisation are two examples of exothermic reactions.
extrusive igneous rock:	Rock that cooled above ground and contains small crystals - for example, basalt.
filtering:	A separating technique that separates a solid from a liquid using a filter funnel and filter paper.
filtrate:	The name given to the liquid that is collected after filtering.
freezing:	When a liquid changes into a solid.
freeze–thaw:	A process whereby water enters a crack in a rock, freezes and then expands until the crack is forced apart and, eventually, a bit of the rock breaks off.
gas:	The particles in a gas are far apart, have a large amount of energy and move rapidly.
global warming:	An increase in the Earth's temperature, which may lead to the ice caps melting or to drought.
greenhouse effect:	The rise in the Earth's temperature caused by trapped gases in the atmosphere.
greenhouse gases:	Gases that contribute to the greenhouse effect, such as carbon dioxide and methane.
hazard symbols:	Symbols that warn of potential dangers.
hydrochloric acid:	A type of acid often used in school science experiments; its formula is HCl.

igneous rock:	Rock formed from molten magma; contains crystals. Examples include granite and basalt.
impure:	A substance that has more than one thing mixed into it.
indicator:	A substance that changes colour to show whether a solution is acidic or alkaline.
inner core:	The centre of the Earth, made up of solid iron and nickel.
insoluble:	A substance that will not dissolve.
intrusive igneous rock:	Rock formed underground; contains large crystals.
lava:	Liquid rock above the Earth's surface.
liquid:	The particles in a liquid are very close together, vibrate and can change places.
litmus paper:	There are two types of litmus paper, blue and red. They act as indicators.
magma:	Liquid rock below the Earth's surface.
mantle:	The widest section of the Earth, it lies below the crust and is made up of semi-molten rock called magma.
metamorphic rock:	Rock formed by heat and pressure, such as slate and marble.
mixtures:	These contain different elements or compounds, or both.
molecule:	Formed when atoms in the same element join together.
neutral:	A solution that has a pH value of 7. Water is a good example.
neutralisation:	Adding an alkali to an acid to produce a neutral solution.
neutrons:	Found in the nucleus of an atom, these do not have a charge.
nitrogen:	A gas that makes up 78% of the Earth's atmosphere.
onion skin weathering:	Caused by extremes in temperature. During the day, the heat from the sun makes the rock very hot, and then cool temperatures at night cause the surface to expand and contract, and finally peel away.
ore:	Rock that contains enough of a metal to make it worthwhile extracting.
outer core:	Surrounds the Earth's inner core; contains liquid nickel and iron.
oxidation:	A chemical reaction in which substances react with oxygen.
oxygen:	A gas that makes up 21% of the Earth's atmosphere and is essential for life.
particles:	These are very small; all matter is made up of particles.
periodic table:	A list of all the elements; elements are grouped together if they have similar properties.
pH scale:	Used to determine whether a solution is acidic or alkaline.
physical weathering:	The breaking down of rocks into smaller pieces through extremes in temperature - for example, freeze–thaw and onion skin weathering.
polymers:	Long chain molecules; plastics are examples of polymers.
porous rock:	Rock that water can soak into.
products:	What is produced when substances have reacted.

protons:	Found in the nucleus of an atom, protons have a positive charge.
pure:	A substance that has not been mixed with other substances.
reactants:	The substances at the start of a chemical reaction.
recycling:	The reusing of materials.
renewable fuels:	These are fuels that will not run out, such as wind power and solar power.
residue:	The name given to the solid that collects in the filter paper after filtering.
reversible reaction:	A chemical reaction in which the reactants and the products keep swapping places.
saturated solution:	A solution in which no more solute can dissolve.
sedimentary rock:	Rock formed in layers over millions of years; they often contain fossils. Examples include limestone and chalk.
sediments:	Small fragments of rocks.
sodium hydroxide:	An alkali often used in school science experiments. Its formula is NaOH.
solid:	The particles in a solid are very close together, have a very small amount of energy and can only vibrate.
soluble:	The name given to a substance that will dissolve in a liquid.
solute:	The name given to a substance that will dissolve in a liquid.
solution:	What is formed when a solid has dissolved in a solvent.
solvent:	The liquid in which something is dissolved.
sublimation:	The change of state from a solid to a gas.
sulphuric acid:	An acid often used in school science experiments. Its formula is H_2SO_4.
sustainability:	The careful use of available resources to ensure that there is enough left for future generations.
symbols:	Each element is represented by one or two letters. These symbols enable elements to be recognised worldwide.
temperature:	a measurement of how hot or cold something is. The unit of temperature is °C.
thermal decomposition:	A reaction involving heat, in which a substance is broken down into at least two substances.
thermite reaction:	A displacement reaction between aluminium and iron oxide to produce molten iron.
universal indicator:	An indicator that changes colour to show the pH of a solution.
weathering:	The gradual wearing away of rocks.

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