

Introducing Chemistry

States matter

Word	Pronunciation	Meaning
dense		Something which is heavy for its volume.
flow		Move.
gas		Something that does not have a fixed shape or volume, and is easy to squash.
liquid	<i>lick-wid</i>	Something with a fixed volume but no fixed shape.
property		A description of how a material behaves and what it is like. Hardness is a property of some solids.
solid		Something with a fixed shape and volume.
states of matter		There are three different forms which a substance can be in; solid, liquid or gas. These are the three states of matter.

In theory

Word	Pronunciation	Meaning
data		Results of an experiment.
observation		What you see happening in an experiment.
prediction		What you think will happen in an experiment.
theory	<i>thear-ree</i>	An idea about why things work the way they do. Scientists use their imaginations to come up with a theory.
bonds		Forces holding particles together.
particles	<i>part-ick-als</i>	The tiny pieces that everything is made out of.
vibrate		Move backwards and forwards.
diffusion		When particles mix with each other without anything moving them
pressure	<i>pres-h-ur</i>	The force caused by particles hitting a certain area.
vacuum	<i>vack-yoom</i>	A completely empty space.

The solution is clear/Melting away

Word	Pronunciation	Meaning
dissolving	<i>diss-olv-ing</i>	When a solid splits up and mixes with a liquid to make a solution.
filtering		Separating things that have not dissolved from a liquid. The liquid is passed through a filter to do this.
insoluble		A solid that will not dissolve.
mixture		A lot of different things jumbled up together.
soluble	<i>sol-you-bull</i>	A solid that can dissolve in a liquid. Salt is soluble in water.
solute		The solid that has dissolved in a liquid to make a solution.
solution	<i>sol-oo-shun</i>	When a solid has dissolved in a liquid.
solvent		The liquid that has dissolved a solid to make a solution.
transparent		Another word for see-through.

Salt of the Earth

Word	Pronunciation	Meaning
brine		A solution of common salt and water.
common salt		A chemical we use to make things taste 'salty'.
evaporation	<i>ev-app-or-ay-shun</i>	A liquid turning into a gas.
salts		Chemicals from rocks that have dissolved in water.

Still water

Word	Pronunciation	Meaning
condensing		A gas turning into a liquid.
distillation	<i>dist-till-ay-shun</i>	The process of separating a liquid from a solution by evaporating the liquid and then condensing it.
pure		A substance that does not have anything else in it.
steam		Water as a gas. Also called water vapour.
still		The apparatus used for distillation.
water vapour	<i>vay-per</i>	Water as a gas. Also called steam.

Dyeing for juice

Word	Pronunciation	Meaning
chromatogram	<i>krow-mat-O-gram</i>	The dried piece of paper produced by chromatography.
chromatography	<i>krow-mat-og-graph-ee</i>	Separating dissolved solids from one another. The solids are usually coloured.

A soluble problem

Word	Pronunciation	Meaning
saturated		A solution that contains as much dissolved solid as it possibly can.
solubility	<i>sol-you-bill-ity</i>	The amount of a solid that will dissolve in 100g of a liquid.
variable	<i>vair-ri-able</i>	A factor in an experiment that can change.

Tangy tastes

Word	Pronunciation	Meaning
acetic acid	<i>a-see-tick</i>	The old name for ethanoic acid. It is the acid in vinegar.
acid		A substance that turns litmus red. It has a pH of less than 7.
ascorbic acid	<i>a-score-bick</i>	Chemical name for vitamin C.
citric acid	<i>sit-rick</i>	The acid in citrus fruits.
ethanoic acid	<i>eth-an-know-ic</i>	The acid in vinegar.

Diamonds are for safety

Word	Pronunciation	Meaning
corrosive	<i>cor-row-sive</i>	Substances that attack metals, stonework and skin are called corrosive.
harmful		Another word for irritant.
hydrochloric acid		A common acid that is also found in your stomach.
irritant		Something that irritates the skin and eyes.
nitric acid		A common acid.
sulphuric acid		A common acid. Used in car batteries.

In the red

Word	Pronunciation	Meaning
alkali	<i>alk-al-lie</i>	Substance that turns litmus blue. Has a pH of more than 7.
indicator	<i>ind-ic-ay-ter</i>	A dye that will change colour in acids and alkalis.
litmus		A simple kind of indicator. It turns red in acids and blue in alkalis.
neutral		Substance that is not an acid or an alkali. Has a pH of 7.

Mixing a rainbow

Word	Pronunciation	Meaning
antacid	<i>ant-ass-id</i>	A medicine containing an alkali used to cancel out some of the acid in the stomach to treat heartburn.
pH scale		A numbered scale from 1–14 showing the strengths of acids and alkalis. Numbers below 7 are acids. Numbers above 7 are alkalis. pH 7 is neutral.
universal indicator		A mixture of indicators giving a different colour depending on how weak or strong an acid or alkali is.

Finding the balance

Word	Pronunciation	Meaning
dilute	<i>die-loot</i>	We dilute a solution by adding more of the solvent to it.
neutralisation		When something is neutralised.
neutralise		When an acid is added to a base (or alkali) a neutral substance is produced.