



Summary
acid + metal --> metal salt + hydrogen
acid + metal oxide or hydroxide --> metal salt + water
acid + metal carbonate --> metal salt + water + carbon dioxide



acid	Any of a class of compounds that form hydronium ions (H_3O^+) when dissolved in water, and whose aqueous solutions react with bases and certain metals to form salts. Acids turn blue litmus paper red and have a pH of less than 7 . Their aqueous solutions have a sour taste. A proton donor.
alkali	a soluble base or a solution of a base
anion	a negatively charged ion , i.e., one that would be attracted to the anode in electrolysis.
baking soda	A white crystalline compound, used as a gastric and systemic antacid, to alkalize urine, and for washes of body cavities. Also called sodium hydrogen carbonate (or - sodium bicarbonate) - NaHCO_3
base	Any of a class of compounds that form hydroxide ions (OH^-) when dissolved in water , and whose aqueous solutions react with acids to form salts. Bases turn red litmus paper blue and have a pH greater than 7 . Their aqueous solutions have a bitter taste. A proton acceptor.
carbonic acid	a weak acid formed when carbon dioxide combines with water: obtained only in aqueous solutions, never in the pure state. Formula: H_2CO_3
cation	a positively charged ion , i.e., one that would be attracted to the cathode in electrolysis.
citric acid	A white, odourless weak acid that has a sour taste and occurs widely in plants, especially in citrus fruit, Chemical formula: $\text{C}_6\text{H}_8\text{O}_7$
co-ordinate bond	a chemical bond that involves the sharing of an electron pair from 1 atom
corrosive	(esp. of acids or alkalis) capable of destroying solid materials
covalent bond	a chemical bond that involves the sharing of electron pairs between atoms.
dissociate	a general process in which ionic compounds (complexes, or salts) separate or split into smaller particles, ions, or radicals, usually in a reversible manner. e.g. $\text{NaCl} \rightarrow \text{Na}^+ + \text{Cl}^-$
hydrogen ion	ionized hydrogen of the form H^+ , found in aqueous solutions of all acids as hydronium ion
hydronium ion	hydrogen ion bonded to a molecule of water, H_3O^+ , the form in which hydrogen ions are found in aqueous solution aka hydroxonium
hydroxide ion	the anion OH^- having one oxygen and one hydrogen atom
indicator	a substance, such as litmus, that indicates the presence of an acid or alkali
indigestion	too much acid in the stomach. Can be neutralised by e.g. baking soda.
ion	an electrically charged atom or group of atoms formed by the loss or gain of one or more electrons , as a cation (positive ion), which is created by electron loss, or as an anion (negative ion), which is created by an electron gain.
ionic bond	a type of chemical bond that involves the electrostatic attraction between oppositely charged ions
ionic equation	chemical equation in which chemicals are written as dissociated ions
limestone	Sedimentary rock formed primarily of calcium carbonate CaCO_3 , often the skeletons of small marine organisms.
litmus	a blue colouring matter obtained from certain lichens, especially Roccella tinctoria. In alkaline solution it turns blue, in acid solution, red: widely used as a chemical indicator.



methanoic acid	the simplest carboxylic (alkanoic) acid. Its chemical formula is HCOOH or HCO₂H . It is an important intermediate in chemical synthesis and occurs naturally, most notably in the venom of bee and ant stings. Also known as formic acid.
molar mass	the relative formula mass of a substance in grams (measured in g/mol).
molar solution	a solution that contains 1 mole of solute in each litre of solution. (M)
mole	the basic unit in the International System of Units (SI), representing the amount of a substance expressed in grams containing as many atoms, molecules, or ions as the number of atoms in 12 grams (0.012kg) of carbon-12 (which is Avogadro's number, or 6.022×10^{23}) - symbol mol
neutral	exhibiting neither acid nor alkaline qualities
neutralise	to add an acid to a basic solution or a base to an acidic solution until the resulting solution is chemically neutral (pH = 7).
pH scale	provides a measure on a scale from 0 to 14 of the acidity or alkalinity of a solution (where 7 is neutral and greater than 7 is more basic and less than 7 is more acidic) \log_{10} of the reciprocal of hydrogen ion concentration --> pH = $-\log_{10} [H^+]$
proton acceptor	a base will which "accept" a proton in a reaction
proton donator	a substance that donates protons in an acid-base reduction reaction
quicklime	another name for calcium oxide CaO
redox reaction	a reaction in which electrons are lost or gained
salt	a product formed by the neutralization of an acid by a base
slaked lime	a soft, white, crystalline, very slightly water-soluble powder, Ca(OH)₂ calcium hydroxide, obtained by the action of water on lime: used chiefly in mortars, plasters, and cements
spectator ions	ions that remain unchanged on both sides of a chemical equation
stomach acid	formed in the stomach. It has a pH of 1 to 2 and is composed of hydrochloric acid (HCl) (around 0.5%), and large quantities of potassium chloride (KCl) and sodium chloride (NaCl).
strong acid	an acid that ionizes completely in an aqueous solution
strong alkali	an alkali that ionizes completely in an aqueous solution
titration	The process or operation of determining the concentration of a substance in solution.
universal indicator	a pH indicator composed of a blend of several compounds that exhibits several smooth colour changes over a pH value range from 1-14 to indicate the acidity or basicity of solutions.
weak acid	an acid that dissociates incompletely
weak alkali	an alkali that dissociates incompletely