Subject	**Chemistry**
Unit/Topic	Year 10 Chemical Changes

Key Vocabulary	Definition
Acid	Produce hydrogen ions, H+ in aqueous (dissolved in water) solutions.
Base	A substance that reacts with an acid to form salt and water only.
Alkali	Soluble bases, which produce hydroxide ions, OH- in aqueous solutions.
Universal indicator	An acid-alkali indicator, which shows a colour chart of the pH scale from very acidic red pH 0 to very alkaline purple pH 14.
Hydroxide ion	OH- ion produced by aqueous alkalis.
Hydrogen ion	H+ ion produced by aqueous alkalis.
Neutralisation	A reaction between an acid and a base that produces a neutral, pH 7, solution: $H^+ + OH^- \rightarrow H_2O$.
Weak acid (HT only)	These only partially dissociate in solution so do not form as many H+ ions e.g. ethanoic acid (vinegar).
Strong acid (HT only)	These completely dissociate in solution so form lots of H+ ions e.g. hydrochloric acid, sulfuric acid, nitric acid.
Concentration	How much of something there is in a given volume.
Ionisation	When a neutral species becomes positively or negatively charged.
Salt	The other product of neutralisation, eg sodium chloride, copper sulfate, iron nitrate etc.
Oxidation	Loss of electrons OR Gain of oxygen.

Reduction	Gain of electrons OR Loss of oxygen.
Redox (HT only)	A reaction where oxidation and reduction take place simultaneously.
Formula	The chemical symbols for a species.
Formulae	The chemical symbols for multiple species.
Soluble	Dissolves in a solute.
Insoluble	Does not dissolve in a solute.
Reactivity series	A list of metals from most to least reactive.
Displacement reaction	When a more reactive element removes another from a compound e.g. magnesium + copper chloride → magnesium chloride + copper.
Metal ore	A rock containing enough of a metal or metal compound to be worthwhile extracting.
Electrolysis	Breaking down a substance using electricity.
Cathode	The NEGATIVE electrode.
Anode	The POSITIVE electrode.
Electrolyte	The ionic compound being broken up. It must be either molten or dissolved so that the ions can move.
Molten	Melted (liquid state).
Bauxite	The ore containing aluminium oxide.
Cryolite	Aluminium oxide is dissolved in this as it requires a lower temperature (and therefore cost) than melting it for electrolysis.
Aqueous	Dissolved in water.