Dynamic Equilibrium	The rates of forward and reverse reaction becomes equal The concentration of products and reactants do not change
Normal Boiling Point	It is the temperature at which any pure liquid and vapours are at equilibrium, at one atmospheric pressure Boiling point depends on atmospheric pressure, at high altitude the boiling point decreases
Henry's Law	The mass of a gas dissolved in a solvent is proportional to the pressure of the gas above the solvent

Equilibrium Constant	For a reaction: $aA + bB \rightleftharpoons cC + dD$ The equilibrium constant is: $K_c = [C]^c[D]^d / [A]^a[B]^b$
Equilibrium Constant	Is independent of initial concentrations of the reactants and products It is temperature dependent Equilibrium constant for the reverse reaction (K_c') is the inverse of the equilibrium constant for the forward reaction (K_c), i.e. $K_c' = 1/K_c$
Le Chatelier's Principle	A change in any of the factors determining the equilibrium conditions will cause the system to change so as to counteract the effect of the change

Arrhenius Concept of Acids and Bases	Acids - give hydrogen ions $H^+_{(aq)}$ in aqueous solution Bases - produce hydroxyl ions $OH^-_{(aq)}$
The Brönsted-Lowry Acids and Bases	Acids - Proton donors Bases - Proton acceptors
Lewis Acids and Bases	Acids - Accept electron pair, e.g. BF_3, $AlCl_3$, Co^{3+}, Mg^{2+}, etc. Bases - Donate an electron pair, e.g. H_2O, NH_3, OH^- etc.

The Ionization Constant of Water	K_w is an equilibrium constant and is temperature dependent $K_w = [H^+][OH^-] = 10^{-14}$, at 298K $-\log K_w = -\log 10^{-14}$ $pK_w = pH + pOH = 14$ $pH = -\log [H^+]$
Buffer Solution	The solutions, which resist any change in pH on dilution or by adding small amounts of acid or alkali Buffer solution is prepared by adding weak acid and its salt formed with strong base or weak base and its salt formed with strong acid