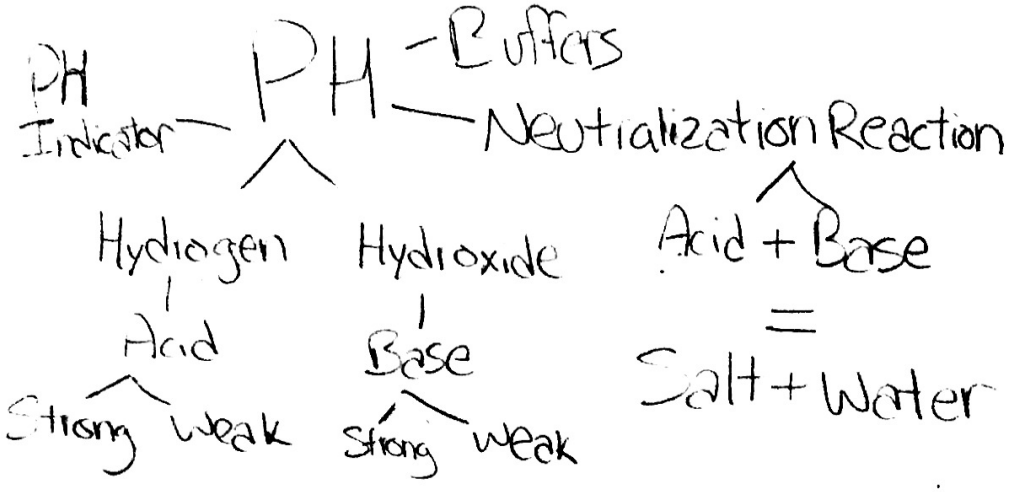
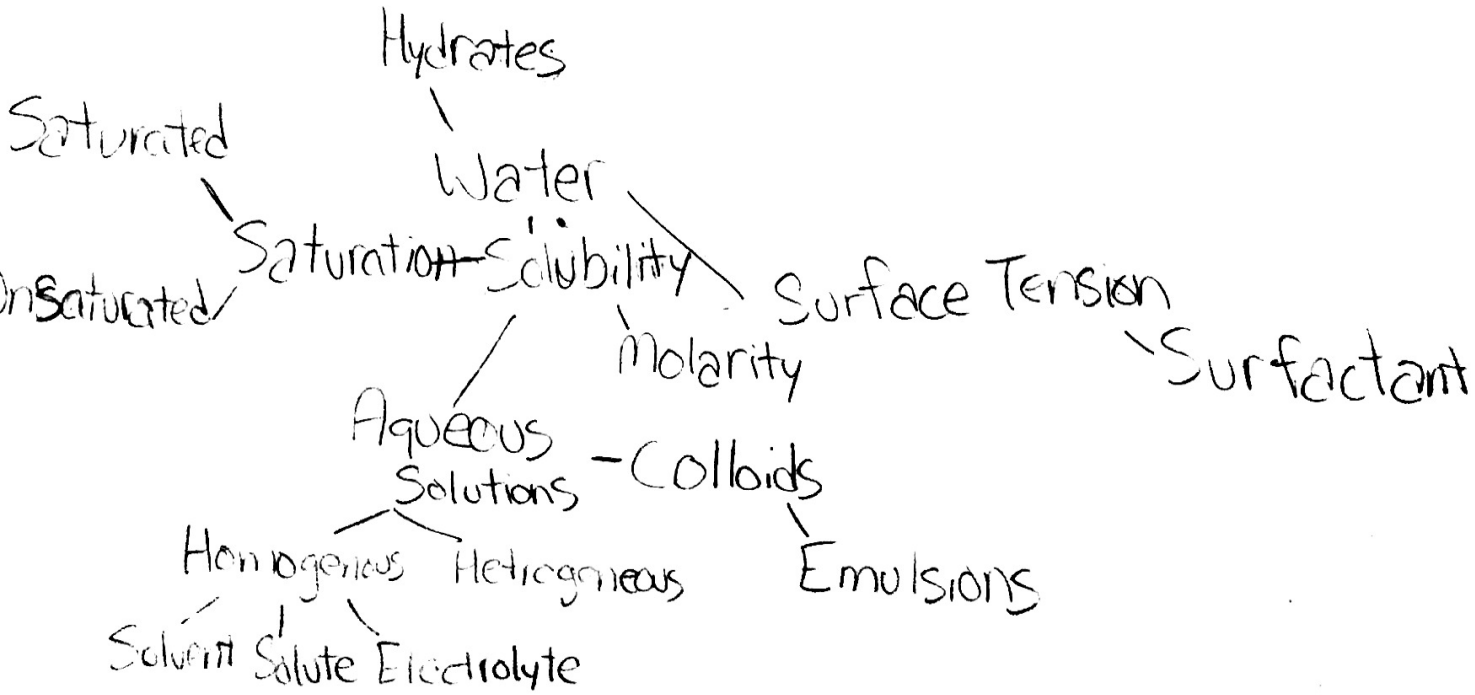

PH
Indicator
PH
Buffers
Neutralization Reaction
Hydrogen
Hydroxide
Acid + Base
=
Acid
Base
Salt + Water
Strong
Weak
Strong
Weak


Hydrates
Saturated
Water
Saturation
Solubility
Unsaturated
Surface Tension
Molarity
Surfactant
Aqueous Solutions
Colloids
Homogeneous
Heterogeneous
Emulsions
Solvent
Solute
Electrolyte

Surface Tension - The increase of molecular bond strength at the surface of water.

Surfactant - Compounds that lower the surface tension between two liquids or between a liquid and a solid.

Vapor Pressure - the pressure exerted by a vapor in thermodynamic equilibrium with its condensed phases at a given temperature in a closed system

Aqueous Solution - a solution in which the solvent is water

Homogenous Solution - a solution that has the same uniform appearance and composition throughout

Solvent - the liquid in which a solute is dissolved to form a solution

Solute - the minor component in a solution, dissolved in the solvent

Electrolytes - a substance that ionizes when dissolved in suitable ionizing solvents such as water.

Water

(to Hydrogen & Hydroxide Ions)

Vapor Pressure

The pressure exerted by a vapor in thermodynamic equilibrium

(Higher evaporation rates more vapor pressure)

Surface Tension

- The contractive tendency of the surface of a liquid. Caused by Hydrogen Bonding in water

Surfactant

- Compounds that lower the surface tension of a liquid

Aqueous Solutions

- A solution in which the solvent is water

Homogeneous Solutions

- a liquid mixture in which the minor component is uniformly distributed in the major component

Solute

- The minor component in a solution. Dissolved in solvent

Solvent

- The liquid in which the solute is dissolved into

Solubility

- The property of a solute to dissolve into a solvent

Saturation

The degree or extent to which something is dissolved compared to the max amount, usually a %

Electrolyte

- A compound that conducts an electrical current when it is in an aqueous solution

Molality ⟷ Molarity

Molality

- The number of moles of solute per kilogram of solvent.

Molality = mol/kg

Molarity

The number of moles of solute per liter of solvent

M = mol/v

Heterogeneous Suspensions

- a mixture containing solid particles large enough for sedimentation

Colloids → Emulsions

Colloids

- A substance that is microscopically dispersed throughout another substance. Small particles that will NOT settle

Emulsions

- A mixture of two or more liquids that are normally non-miscible

Buffers

- A solution that resists changes in pH when acid or alkali is added to it.

Neutralization Reaction

- The reaction of an acid with a base to form salt and water. The reaction neutralizes the pH and pOH

H^+ & OH^-

Hydrogen & Hydroxide Ions

pH

- (see below)

Acid

- A molecule or other entity that can donate a proton or accept an electron pair in reactions

Weak Acid

- Any acid that does not dissociate completely

pH Indicator

- A halochromic chemical compound that is added to a solution in small amounts so the pH of the solution can be determined visually

Base

- a substance capable of reacting with an acid to form salt & water, or of accepting and neutralizing hydrogen ions

Weak Base

- A chemical base that does not completely ionize in an aqueous solution

pH - a figure expressing the acidity or alkalinity of a solution on a logarithmic scale on which 7 is neutral, less values are more acidic, and higher values are more alkaline.

- The pH is equal to $-\log[c]$, where c is the hydrogen ion concentration in mol/L

- Equations & Important Terms

- Titration - used to dilute aqueous solutions

  - Moles of Solute = $M_1 \cdot V_1 = M_2 \cdot V_2$
    (used a lot)

- pH - measurement of how acidic or basic something is

  - $pH = -\log_{10}[H^+]$

  - $pOH = -\log_{10}[OH^-]$

  ($pH + pOH = 14$)