**Unit 6: Mixtures Chapter 12 & 13**

Draw the dissolution process, include solute and solvent

**Parts of a Mixture:** (pg 402)

* Solute:
* Solvent:

**Electrolytes** (Pg 406 & 442)

* Label each being an electrolyte or as a nonelectrolyte



* Strong electrolyte:
* Weak electrolyte:

**Factors that affect rate of Dissolution** (Pg 407)

* Where does dissolution occur?
* **Label** the beakers below as small or large surface area and note if the size of particles are big or small.

* \_\_\_\_\_\_\_\_\_\_\_\_\_ the **surface area** of the solute = \_\_\_\_\_\_\_\_\_\_\_ particle size of the solute =\_\_\_\_\_\_\_\_\_\_\_ contact of the solute to the solvent = \_\_\_\_\_\_\_\_\_\_\_\_ rate of dissolution.
* Increasing **agitation** = increasing \_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_ helps to disperse the solute particles = \_\_\_\_\_\_\_\_\_\_\_ contact of the solute to the solvent = \_\_\_\_\_\_\_\_\_\_\_\_\_ rate of dissolution.
* Higher **temperature** = \_\_\_\_\_\_\_\_ frequency of collisions between solvent and solute = \_\_\_\_\_\_ energy = \_\_\_\_\_\_ rate of dissolution because there is \_\_\_\_\_\_ energy to separate the \_\_\_\_\_\_\_\_\_ and to \_\_\_\_\_\_\_\_\_ them in among the solvent molecules.
* However, in gases (pg 414) generally the \_\_\_\_\_\_\_\_\_\_\_\_ temperature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the solubilty of the gas in the liquid.
* How does **pressure** effect the rate of dissolution? Explain. (pg 413)

**Solubility (pg 408-409)**

* At a given temperature, there is a \_\_\_\_\_\_\_\_\_\_\_\_ to the amount of solid solute that can be dissolved in a solvent.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the amount of that solid dissolves = \_\_\_\_\_\_\_\_\_\_\_\_ in the concentration of dissolved molecules = \_\_\_\_\_\_\_\_\_\_\_\_\_ collisions between solvent and solute.
* A dynamic equilibrium is established between dissolution and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ when the amount of molecules that are crystallizing is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the amount that are going into solution.

This is the point in which….

* Saturated:
* Unsaturated:
* Supersaturated:
* How long will a supersaturated solution last?

**Solute-Solvent Interactions** (pg 410-413)

* Describe the statement “likes dissolve likes”
* Describe what is going on in the picture
* miscible:
* immiscible:
* Describe what is going on in the pictures (Pg 412)

