Solubility Review Notes

What is Solubility?

Solubility is the measure of how well one substance (solute) dissolves into another (solvent).

If salt is dissolved into water: Salt is the _____. Water is the _____. If a solute dissolves into a solvent, then it is: _____. If the solute will not dissolve, then it is: _____

A _____ is created when a solute dissolves into a solvent.

When a solution cannot dissolve any more solute, it is a _____.

If more solute can still dissolve, the solution is _____.

Example: If you try to stir sugar into iced tea, but no more will dissolve, then the solution is _____. If you can still dissolve more lemonade mix into the pitcher of water, then the solution is _____. Oil will not dissolve in water because it is _____.

What if the solute in insoluble?

A _____ is created when large, undissolved particles are in the solvent. These particles can be filtered out, or will eventually settle.

A _____ is created when the solvent contains very small, undissolved particles. These particles are too small to see, and will not settle.

Why do some things dissolve better than others?

There are many factors that affect solubility.

- Materials
- Stirring/mixing
- Temperature
- Surface Area/Size of particle
- Already dissolved solute

How does the material/substance affect the solubility?

Some materials are more soluble than others.

As a general rule, like dissolves like. Substances must have similar characteristics to be soluble. If these characteristics are different, then they are insoluble.

- Ex: Alcohol dissolves easily into water, but oil and water will never mix.

The affect of stirring on solubility.

The more we stir, mix, or shake a mixture, it will make the solute dissolve _____.

The affect of temperature on solubility.

For most mixtures, if we _____ the temperature, the solute will dissolve much easier.

How does size particle affect solubility?

If the particles of the solute are larger, then it will take much _____ for them to dissolve.

How will it affect solubility if the solution already has dissolved solute?

If a solution already contains dissolved material, it will be much more _____ for a solute to be dissolved.