

# Identify That Solute & Solvent!!!

Solution	Solvent	Solute(s)
Kool-Aid		
pool water		
chocolate milk		
soda		
air		
pen ink		
sea water		

## Notes on Solubility:

- ▶ Heterogeneous mixtures are not evenly blended, therefore, you can clearly see the different parts in a heterogeneous mixture. Heterogeneous examples: trail mix and other cereals, blood, soil, granite rock
- ▶ Homogeneous mixtures are evenly blended, therefore, the different substances are NOT visible. Homogeneous examples: air, Kool-Aid, pool water, soda
- ▶ Solutions are made of solvents and solutes.
- ▶ A polar molecule is different from other molecules because one side is slightly negative and one side is slightly positive because of the unequal sharing of electrons.
- ▶ On a water molecule, the oxygen side is negative and the hydrogen side is positive.
- ▶ "Like dissolves like" means that only polar solvents can dissolve polar solutes and only non-polar solvents can dissolve non-polar solutes.
- ▶ Concentration is the amount of solute that is dissolved in a given solution.
- ▶  $C = \frac{m(\text{solute})}{v(\text{solution})}$
- ▶ Solubility is the maximum amount of solute that will dissolve in a given solution.
- ▶ Solubility is different than concentration because solubility gives you a maximum value while concentration give you a ratio of solute to solution – it's NOT telling you the maximum it can hold.
- ▶ If a solution is saturated then the solution cannot dissolve any more solute – it's reached the maximum is can hold.
- ▶ If a solution is unsaturated then the solution can dissolve more solute – it's not reached its limit yet.