Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Blk: \_\_\_\_

**Ch.13 Properties of Solutions**

By the end of the unit, I will be able to:

|  |  |  |
| --- | --- | --- |
| **Section** | **Learning Outcomes** | **Stoplight After** |
| Sec. 13.1, 13.3 and 13.4 | * Describe the energy changes that occur in the solution process in terms of the solute-solute, solvent-solvent, and solute-solvent attractive forces; describe the role of disorder in the solution process
 |  |
| * Rationalize the solubilities of substances in various solvents in terms of their molecular structures and intermolecular forces
 |  |
| * Describe the effects of pressure and temperature on solubilities
 |  |
| Sec. 13.2 | * Define mass percentage, parts per million, mole fraction, molarity, molality, and calculate concentrations in any of these concentration units.
 |  |
| * Convert concentration in one concentration unit into any other (given density of the solution where necessary)
 |  |
| Sec. 13.5 | * Determine the concentration and molar mass of a non-volatile non-electrolyte from its effect on the colligative properties of a solution.
 |  |
| * Explain the difference between the magnitude of changes in colligative properties caused by electrolyte compared to those caused by non-electrolytes.
 |  |
| * Describe the effects of solute concentrations on the vapour pressure, boiling point, freezing point, and osmotic pressure of a solution, and calculate any of these properties given appropriate concentration data.
 |  |
| Sec 13.6 | * Describe how a colloid differs from a true solution
 |  |

**Reflection:**

I feel I need to focus my studying on….