**Physical Science Quiz #5 Study Guide - Solutions**

**Directions:** Answer the following questions to help prepare for your quiz.

1. What is a solution?
2. Explain the difference between a solute and a solvent.
3. Describe three ways you can increase the rate of dissolving.
4. What is solubility?
5. Explain the difference between concentrated solutions and dilute solutions.
6. Explain saturated, unsaturated, and supersaturated solutions.
7. Explain how pressure and temperature affect the solubility of a gas in a liquid.

1. How are electrolytes different from nonelectrolytes?
2. Explain the process of ionization.
3. Explain the process of dissociation.
4. How do solute particles affect the freezing point and the boiling point of the solvent?

**Solubility Curve**

What type of solution do you have if you dissolve 20 grams of KCl into 100 grams of water at 30o C?

What type of solution do you have if you dissolve 90 grams of KNO3 into 100 grams of water at 60o C?

Which solutes are not really affected by a change in temperature?

Give an example of a saturated solution of KClO3?