Physical Science Chapter 8 Notes Outline

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

**Solutions, Acids, and Bases – Pages 226-256**

8.1 Formation of Solutions

Dissolving- *Substances can dissolve in 3 ways, which are listed below*

 **Solute-**

 **Solvent-**

1. Dissociation of Ions-

 **Dissociation-**

1. Dispersion of Molecular Compounds-

 **Dispersion-**

1. Ionization of Molecular Compounds-

 **Ionization-**

Properties of Liquid Solutions-

1.) Conductivity-

2.) Freezing Point-

3.) Boiling Point-

Heat of Solution-

Factors affecting Rates of Dissolving-

 1.)

 2.)

 3.)

**SECTION QUESTIONS-**

**1.) What are three ways that substances can dissolve in water?**

**2.) What three factors affect dissolving rates?**

8.2 Solubility and Concentration-

**Solubility-**

 **Saturated Solubility-**

 **Unsaturated Solubility-**

 **Supersaturated Solutions-**

Factors Affecting Solubility-

 1.) Polar and Nonpolar Solvents-

 2.) Temperature-

 3.) Pressure-

Concentration of Solutions-

**Concentration-**

1**.** Percent by Volume-

 2. Percent by Mass-

 3. **Molarity-**

**SECTION QUESTIONS**

**1.) What three terms are used to describe solution with different amounts of solute?**

**2.) What is the effect of pressure on the solubility of a gas?**

8.3 Properties of Acids and Bases-

Identifying Acids-

 **Acid-**

1.)Sour Taste-

 2.) Reactivity with metals-

 3.) Color changes in Indicators-

 **Indicators-**

Identifying Bases-

 **Base-**

1.) Bitter Taste-

 2.) Slippery Feeling-

 3.) Color changes in Indicators-

Neutralization and Salts-

 **Neutralization-**

 **Salt-**

Proton Donors and Acceptors-

**SECTION QUESTIONS-**

**1.) List three general properties of acids.**

**2.) List three general properties of bases.**

**3.) Commercials for antacids often claim these products neutralize stomach acid. Antacids are bases. Think of an analogy (comparison) for the way in which antacids neutralize acids.**

8.4 Strength of Acids and Bases-

The pH Scale-

 **pH-**

Strong Acids and Bases-

 Strong Acids-

 Strong Bases-

Weak Acids and Bases-

 Weak Acids-

 Weak Bases-

 **Buffers-**

**Electrolytes-**

**SECTION QUESTIONS**

**1.) What determines the degree to which an acid or base is weak of strong?**