Guided Reading Chapter 21 Section 2

1. Name an example of a solution of a solid, a liquid, and a gas.

2. Muddy water is considered a _____.

   a) suspension b) colloid c) solution

3. An example of a colloid would be _____.

4. A method known as the _____ _____ distinguishes a colloid from a solution.

5. Complete the following data table which compares different properties of solutions, colloids, and suspensions.

	Size of particles	**Settling of particles?**	**Does filtering work?**	**Scatter light?**
Solution		no		
Colloid	1 -1000 nm			
			yes	Yes, if translucent

6. What is the difference between a solvent and a solute?

7. Two important influences of dissolving a solute in a solution are temperature and _____ _____.

8. _____ describes the amount of solute that can be dissolved in a solvent.

   a) Insolubility b) Solubility c) Dissociation

9. _____ solutions contain as much solute that a solvent can dissolve.

   a) Saturated b) Soluble c) Insoluble

10. Which substance on Table 21.2 is insoluble?

11. Which substance on Table 21.2 has solubility greater than 100 but less than 250 grams per 100 ml H_2O at 20° C?

12. Which solute, on the Temperature - Solubility Graph for salts seems to have the most change due to an increase in temperature?

13. The concentration of a solution is expressed as the amount of _____ to the amount of _____.

    a) Solvent, solute
    b) Moles, mass
    c) Solute, solvent

14. In chemistry, it is most common to express concentration using _____.

15. Copy the formula used to calculate the mass percent of a solution.

16. What are some units used when referring to very small amounts of a solution?

17. _____ is when the rate of dissolving equals the rate of precipitating.

    a) Supersaturation b) Unsaturation c) Equilibrium

18. The solubility of a gas _____ when an increase in pressure occurs.

    a) decreases b) increases c) has no effect

19. How is solubility of a gas affected when an increase in temperature occurs?

20. Using the "Solubility Rules", predict whether $CaCl_2$ is soluble.