**WATER REVIEW – Section 2.2 in book**

1. Explain why water is a polar molecule.
2. How does a hydrogen bond compare to a covalent bond?
3. What property of water explains why it can travel to the top of trees?
4. Explain why water dissolves so many different substances.
5. The solubility of oxygen in water increases as water temperature decreases. Explain why having water at a temperature of 2oC under a sheet of ice would be important for living organisms in terms of oxygen solubility.
6. Describe an example of cohesion and adhesion that you might observe during your daily life.

**READ PAGES 40-43 AND ANSWER THE FOLLOWING QUESTIONS:**

1. What can you say about the properties of hydrogen ions and hydroxide ions in a solution that has a pH of 2?
2. An acid is any substance that forms \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in water.
3. What pH value is neutral?
4. What type of soil do plants grow best in: acidic or basic?
5. What is the difference between an acid and a base?

**For 12-17 use the following words to fill in the blanks:**

 hydrogen bond solution acid

 cohesion solvent base

 adhesion solute pH

1. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a mixture made of two parts, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which is the bigger part, and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which dissolves.
2. Attraction among molecules of the same type is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Attraction among molecules of different types is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ scale measures the concentration of H+ ions.
5. A high concentration of H+ ions makes something a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and a low concentration of H+ ions makes something a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ give water special properties such as cohesion.
7. Why are hydrogen bonds important for life?
8. What is the pH level for most human cells?