Name _____ Date _____ Class _____

Study Guide

CHAPTER 6

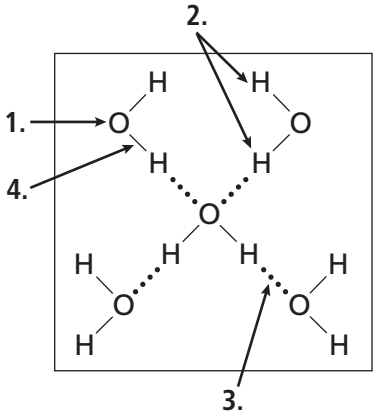
Section 3: Water and Solutions

In your textbook, read about water's polarity.

Label the diagram. Use these choices:

covalent bond **hydrogen bond** **slightly negative end** **slightly positive end**

1. slightly negative end
2. slightly positive end
3. hydrogen bond
4. covalent bond



In your textbook, read about mixtures with water.

For each statement below, write true *or* false.

true — **5.** A mixture is a combination of two or more substances in which each substance retains its individual characteristics.

true at the beginning — **6.** A suspension is a mixture that has a uniform composition throughout.

false, solute — **7.** In a mixture, the solvent is the substance that is dissolved.

true — **8.** A mixture of sand and water is a heterogeneous mixture.

false, heterogenous — **9.** A suspension is a homogeneous mixture in which water is mixed with a substance that does not dissolve in it.

In your textbook, read about acids and bases.

Use each of the terms below only once to complete the passage.

acids **bases** **biology** **buffers** **hydrogen ions** **neutral** **pH**

Substances that release hydrogen ions when dissolved in water are called (**10**) acids . The more (**11**) hydrogen ions a substance releases, the more acidic the solution becomes. Substances that release hydroxide ions when dissolved in water are called (**12**) bases . Acids and bases are key substances in (**13**) biology . The concentration of hydrogen ions in a solution is called (**14**) pH . Pure water is (**15**) neutral and has a pH value of 7.0. (**16**) buffers are weak acids or weak bases that can react with strong acids or strong bases to keep the pH within a particular range.

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