

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

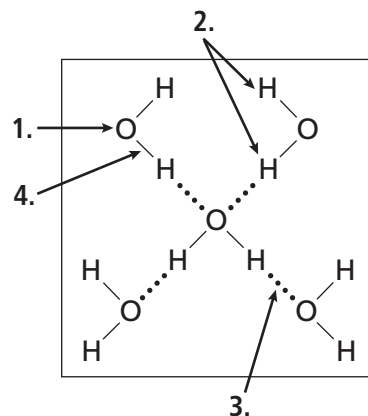
slightly positive end

1. _____

2. _____

3. _____

4. _____



In your textbook, read about mixtures with water.

For each statement below, write true or false.

- _____ 5. A mixture is a combination of two or more substances in which each substance retains its individual characteristics.
- _____ 6. A suspension is a mixture that has a uniform composition throughout.
- _____ 7. In a mixture, the solvent is the substance that is dissolved.
- _____ 8. A mixture of sand and water is a heterogeneous mixture.
- _____ 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) _____. The more (11) _____ a substance releases, the more acidic the solution becomes. Substances that release hydroxide ions when dissolved in water are called (12) _____. Acids and bases are key substances in (13) _____. The concentration of hydrogen ions in a solution is called (14) _____. Pure water is (15) _____ and has a pH value of 7.0. (16) _____ are weak acids or weak bases that can react with strong acids or strong bases to keep the pH within a particular range.