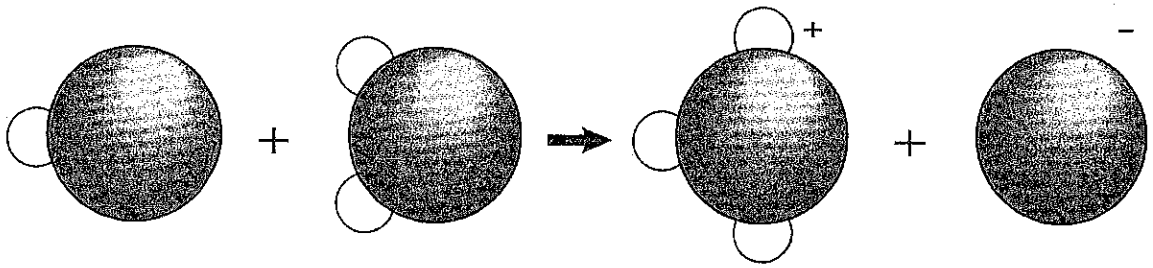
Name Date Class

SECTION 3 Study Guide

Acidic and Basic Solutions

Chapter 3

Directions: *Use the diagram below to answer questions 1 through 5.*



Directions: *Look at the left side of the diagram.*

1. What common substance is a three-atom molecule like the one in this illustration?

Directions: *Look at the right side of the diagram.*

2. Explain what has happened to the two-atom molecule.

3. Identify the four-atom ion formed if the ion from the two-atom molecule is a hydrogen ion.

4. What kind of solution—acid or basic—has been produced?

5. Will this solution conduct electricity? Why or why not?

Directions: *Answer the following questions on the lines provided.*

6. List three properties of acidic solutions.

7. List three properties of basic solutions.

8. Which ion increases in concentration when a strong acid is added to water?

9. Which ion increases in concentration when a strong base is added to water?

10. How are the relative strengths of acids and bases compared?

11. Name the process that occurs when you drop an antacid tablet into a glass of lemonade.