$\qquad$
$\qquad$
$\qquad$

## Acids, Bases, and Solutions

## Acids and Bases in Solution

## Understanding Main Ideas

Complete the concept map shown below and answer the following questions on a separate sheet of paper.

5. What is the difference between a strong acid and a weak acid?
6. What is the difference between a strong base and a weak base?
7. Which solution has a greater concentration of hydrogen ions $\left(\mathrm{H}^{+}\right)$, a solution with a pH of 3 or one with a pH of 7 ? Explain.
8. What are the products formed when a base reacts with an acid?
9. What is the pH of a neutral solution?

## Building Vocabulary

Match each term with its definition by writing the letter of the correct symbol or definition on the line beside the term in the left column.
$\qquad$ 10. hydroxide ion
a. ionic compound that can form from the reaction of an acid with a base
$\qquad$ 11. pH scale
b. reaction between an acid and a base
c. series of numbers that indicates the concentration
12. hydrogen ion of hydrogen ions in solution
d. $\mathrm{H}^{+}$
$\qquad$ 13. neutralization
e. $\mathrm{OH}^{-}$
$\qquad$ 14. salt

