

Directed Reading B

Section: Solutions of Acids and Bases

STRENGTHS OF ACIDS AND BASES

- _____ 1. What is the amount of acid or base dissolved in water called?
- concentration
 - strength
 - pH
 - neutralization
- _____ 2. When an acid dissolves in water, which of the following is dependent on the number of molecules that break apart?
- the acid's concentration
 - the acid's color
 - the acid's durability
 - the acid's strength
- _____ 3. In which of the following do all the molecules of an acid break apart in water?
- a strong acid
 - a strong base
 - a weak acid
 - a weak base
- _____ 4. In which of the following do only a few of the molecules of an acid break apart in water?
- a strong acid
 - a strong base
 - a weak acid
 - a weak base
- _____ 5. In which of the following do all the molecules of a base break apart?
- a strong acid
 - a strong base
 - a weak acid
 - a weak base
- _____ 6. In which of the following do only a few molecules of a base break apart?
- a strong acid
 - a strong base
 - a weak acid
 - a weak base

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ACIDS, BASES, AND NEUTRALIZATION

- _____ **7.** What is the reaction between acids and bases called?
a. a neutralization reaction
b. an explosion
c. a strength reaction
d. evaporation
- _____ **8.** What do the H^+ ions of an acid and the OH^- ions of a base form when they react?
a. oxygen
b. water
c. sugar
d. hydrogen gas
- _____ **9.** What can show whether a solution contains an acid or a base?
a. an indicator
b. pure water
c. antacids
d. salt
- 10.** The _____ scale is used to express the acidity or basicity (alkalinity) of a system.
- 11.** The pH of a solution shows the concentration of what type of ion?

Match the correct description with the correct term. Write the letter in the space provided.

- _____ **12.** pH of a neutral solution **a.** greater than 7
- _____ **13.** pH of a basic solution **b.** less than 7
- _____ **14.** pH of an acidic solution **c.** 7
- 15.** What are three examples of common materials with a pH of less than 7?

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16. What are three examples of common materials with a pH of more than 7?

17. Name two types of pH indicators.

For each organism listed, write the preferred pH or pH range.

_____ **18.** pine trees

_____ **19.** lettuce

_____ **20.** fish

21. How does acid rain form, and what is its effect on nature?

SALTS

22. What two substances are produced when an acid neutralizes a base?

23. What is a salt, and how does it form?

24. Name three salts, and tell what they are used for.
