

Skills Worksheet

# Vocabulary and Section Summary B

## Acids and Bases

### VOCABULARY

After you finish reading the section, try this puzzle! Use the clues below to solve the crossword puzzle!

#### ACROSS

acid

2. any compound that increases the number of hydronium ions when dissolved in water

bromthymol blue

4. an indicator that is pale blue in water and turns yellow in the presence of an acid

#### DOWN

1. a compound that can reversibly change color depending on conditions such as pH

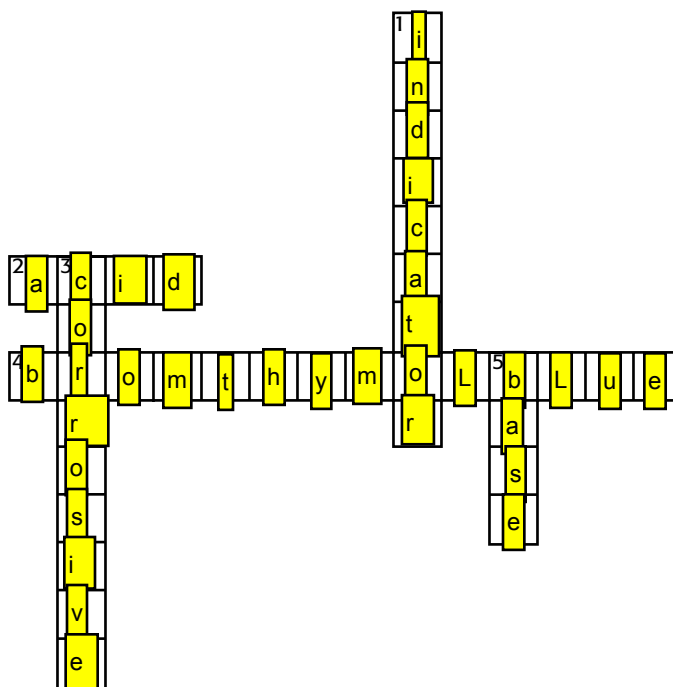
indicator

3. describes a substance that can destroy body tissues, clothing, and many other things

corrosive

5. any compound that increases the number of hydroxide ions when dissolved in water

base



# Vocabulary and Section Summary B

## Solutions of Acids and Bases

### VOCABULARY

After you finish reading the section, try this puzzle! Fill in the blanks with the correct terms. Then, use the words to complete the word search puzzle on the next page.

#### Clues

1. Sulfuric acid, hydrochloric acid, and nitric acid are all \_\_\_\_\_ **strong** \_\_\_\_\_ acids.
2. The reaction of an acid and a base to form a neutral solution of water and a salt is called a(n) \_\_\_\_\_ **neutralization** \_\_\_\_\_ reaction.
3. The value that is used to express the acidity or basicity of a solution is \_\_\_\_\_ **pH** \_\_\_\_\_.
4. An indicator can identify whether a solution contains an acid or a(n) \_\_\_\_\_ **base** \_\_\_\_\_.
5. An ionic compound formed when a metal atom replaces the hydrogen of an acid is called a(n) \_\_\_\_\_ **salt** \_\_\_\_\_.

**Vocabulary and Section Summary B** *continued*

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L | C | X | R | G | S | Q | J | S | X | A | G | I | T | X |
| N | X | Y | Q | S | Q | M | F | N | S | X | E | H | N | U |
| P | H | K | J | O | U | A | J | D | P | F | G | E | I | X |
| D | E | Y | C | M | J | O | T | M | Z | D | U | W | Q | Y |
| H | T | F | B | S | L | P | S | Q | D | T | S | J | T | Z |
| I | E | Q | G | L | G | K | C | Q | R | S | I | X | L | X |
| H | N | O | K | K | N | W | E | A | B | E | L | R | A | G |
| B | N | P | E | O | T | Z | L | S | V | G | W | A | S | V |
| F | N | B | E | E | S | I | G | I | A | R | Q | P | M | W |
| J | X | G | S | J | Z | G | K | V | S | B | R | Z | U | X |
| Z | Q | O | V | A | X | D | M | Q | N | I | Z | L | X | C |
| E | R | Z | T | S | Z | J | R | N | J | F | S | N | X | E |
| F | U | I | J | F | R | M | A | K | D | P | Q | V | H | V |
| C | O | J | C | L | G | C | M | V | V | M | L | Y | R | K |
| N | G | N | O | R | T | S | N | H | I | U | L | R | W | C |

**SECTION SUMMARY**

Read the following section summary.

- Every molecule of a strong acid or base breaks apart to form ions. Few molecules of weak acids and bases break apart to form ions.
- An acid and a base can neutralize one another to make salt and water.
- pH is a measure of hydronium ion concentration in a solution.
- A salt is an ionic compound formed when an acid reacts with a base.

Skills Worksheet

# Directed Reading B

## Section: Elements in Living Things

### THE BONDING OF CARBON ATOMS

1. Name two reasons why carbon has a central role in the chemistry of living organisms.

Carbon is light weight and can bond with 4 other atoms. This gives carbon the most diversity of possible combinations to make large molecules. This allows life to be very diverse.

2. Each carbon atom has four valence electrons.
3. Each carbon atom can make a total of four bonds.
4. Models of carbon backbones show how atoms are connected.
5. A covalently bonded compound that contains carbon is called a(n) organic compound.

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

single bond

6. type of bond carbon atoms most often form

a. propane

ethene

7. simplest example of an organic compound with a double bond

b. ethyne

c. single bond

propane

8. compound whose carbon atoms have only single bonds

d. ethene

ethyne

9. organic compound that has triple bonds between carbon atoms

### OTHER ELEMENTS IN LIVING ORGANISMS

10. What type of compounds do all living things depend on?

All living things depend on organic compounds, because carbon makes many possible combinations.