

SECTION

1

Reinforcement

How Solutions Form

Directions: Complete the table below by writing the missing information in the appropriate box. Then answer the question below.

| Solution Type | Solvent | Solute | Example |
|---------------|---------|--------|----------------|
| 1. gas | | gas | |
| 2. | | solid | salt water |
| 3. solid | | | dental amalgam |
| 4. | liquid | | club soda |
| 5. | liquid | liquid | |
| 6. | solid | | brass |

7. Study the information in your table carefully. What do you notice about the state of the solvent and the type of solution produced?

Directions: Circle the term in parentheses that makes each statement true.

- When a solid is being dissolved in a liquid, stirring (speeds up, slows down) the dissolving process.
- A gas dissolves faster in a liquid if the temperature of the liquid is (increased, decreased).
- A gas's solubility is faster in a liquid when under (high, low) pressure.
- By stirring a gas in a liquid, its solubility (speeds up, slows down) the dissolving process.
- A solid dissolves faster in a liquid if the temperature of the liquid is (increased, decreased).
- The (larger, smaller) the surface area of a solid, the faster it will dissolve.

Directions: Study your responses to the exercise above. Use your responses to answer the following question.

- How do the methods of speeding the rate of solution for dissolving a solid in a liquid compare to the methods of speeding the rate of solution when dissolving a gas in a liquid?