

Name : _____

Solubility Practice Worksheet

1. Name the three factors influencing the rate at which a solute dissolves in a solvent.

2. Define the following words

a. Solubility

b. Saturated solution

c. Unsaturated solution

d. Supersaturated solution

3. What are the customary units of solubility on solubility curves?

4. The solubility of any substance changes as _____ changes.

5. Circle the condition that will cause the sugar to dissolve faster in water.

a. Whole sugar cube or granulated sugar?

b. When allowed to stand or when stirred?

c. At a higher temperature or a lower temperature

6. Identify the solute(s) and the solvent for each of the following examples of solution.

a. Sugar, lemon juice, and water make up lemonade.

Solute _____ Solvent _____

b. A few drops of food coloring can change the color of water.

Solute _____ Solvent _____

c. Pulp mills discharge a gas that spreads through the air. The gas can be smelled kilometers away.

Solute _____ Solvent _____

Name : _____

Solubility Practice Worksheet

Answers

1. Name the three factors influencing the rate at which a solute dissolves in a solvent.

surface area (solute in solid-state), temperature, and amount of stirring

2. Define the following words

a. Solubility

The maximum amount of solute that can dissolve in a solvent at a given temperature.

b. Saturated solution

A solution that has dissolved as much solute as it is capable of dissolving.

c. Unsaturated solution

A solution in which the amount of dissolved solute is less than the saturation point of the solvent.

d. Supersaturated solution

A solution contains more dissolved solute than is required for preparing a saturated solution.

3. What are the customary units of solubility on solubility curves?

Degrees Celsius and grams of solute/100g of water

4. The solubility of any substance changes as temperature changes.

5. Circle the condition that will cause the sugar to dissolve faster in water.

a. Whole sugar cube or granulated sugar?

b. When allowed to stand or when stirred?

c. At a higher temperature or a lower temperature

6. Identify the solute(s) and the solvent for each of the following examples of solution.

a. Sugar, lemon juice, and water make up lemonade.

Solute Sugar, lemon juice Solvent Water

b. A few drops of food coloring can change the color of water.

Solute Food coloring Solvent Water

c. Pulp mills discharge a gas that spreads through the air. The gas can be smelled kilometers away.

Solute Gas Solvent Air