

Solubility of Gases

1

Pick the Right Answer!

- 1 **According to the text, what does it mean for something to be "soluble"?**
 - a It can evaporate into the air.
 - b It can dissolve into water.
 - c It can freeze into a solid state.
 - d It can react with other substances.

- 2 **How does the solubility of gases change with temperature, according to the text?**
 - a It increases with higher temperatures.
 - b It decreases with higher temperatures.
 - c It increases with lower temperatures.
 - d It stays the same regardless of temperature.

- 3 **What happens to the solubility of water when it gets warmer?**
 - a It becomes more soluble for gases.
 - b It becomes less soluble for gases.
 - c It remains the same for gases.
 - d It only affects the solubility of solids.

- 4 **According to the text, why does shaking an unopened can of soda cause it to explode?**
 - a It increases the solubility of water.
 - b It decreases the solubility of water.
 - c It releases carbon dioxide from the water.
 - d It increases the pressure inside the can.

- 5 **Why is the solubility of gases important for healthy lakes, according to the text?**
 - a Fish need dissolved oxygen for life.
 - b Plants need dissolved carbon dioxide for photosynthesis.
 - c Both fish and plants rely on each other's gas production.
 - d All of the above.

6 How do fish obtain dissolved oxygen from water, according to the text?

- a Through their gills.
- b Through their mouths.
- c Through their skin.
- d Through their fins.

7 Based on the information in the text, which statement is true about the solute and solvent in the context of gases dissolving in water?

- a Oxygen is the solute and water is the solvent.
- b Carbon dioxide is the solute and water is the solvent.
- c Oxygen is the solvent and water is the solute.
- d Carbon dioxide is the solvent and water is the solute.

2

Can You Tell which Sentences are True and which are False?

- 1 Solubility of gases in water is a constant property that does not change with temperature.
- 2 Oxygen is considered the solute when it dissolves in water.
- 3 The solubility of gases in water increases as the temperature decreases.
- 4 Carbon dioxide is the gas that leaves the water when a can of soda is shaken and opened.
- 5 Fish need dissolved carbon dioxide for survival.
- 6 Plants produce the gas that fish need to breathe.
- 7 The solubility of gases in water is not important for the health of lakes.
- 8 The solute in the text is carbon dioxide.
- 9 The solvent in the text is oxygen.
- 10 The solubility of gases in water is relevant for both fish and plants.