Factors That Affect Dissolving Worksheet

Scoring guide · one credit per question · review written work against each rubric

Factors That Affect Dissolving

Question 1

Choice (1)

Stirring brings fresh solvent into contact with the sugar surface.

Question 2

Crushing exposes more total surface to the water. More sugar particles are in direct contact with the solvent at the same time.

Question 3

Choice (1)

For the same solute mass, a shorter time indicates faster average dissolving.

Question 4

Stirring speeds contact between solute and solvent and helps the system reach equilibrium faster. Equilibrium solubility at the same conditions sets the final dissolved limit.

Comparing Sugar Samples

Question 5

Choice (1)

P and Q use no stirring and differ only in whether the sugar is a cube or crushed.

Question 6

40 s − 25 s = 15 s.

Question 7

Choice (3)

Every trial completely dissolves the same 5.0 g of sugar.

Question 8

Use a 5.0 g cube in 100 g water at 25 °C with steady stirring. Compare its time with P, the cube with no stirring.