



Conditions necessary for making a solution

A. Choose the Correct Answer:

1. What is a solution made of?

- a) Only water
- b) Two or more substances mixed together
- c) A solid and a gas only
- d) Only one substance

2. What happens when sugar is added to water?

- a) It disappears completely
- b) It forms a solution by dissolving in water
- c) It floats on top of water
- d) It sinks to the bottom

3. Which of the following helps substances dissolve faster in water?

- a) Keeping the water still
- b) Using cold water
- c) Stirring the mixture
- d) Adding less water

B. Fill in the Blanks:

1. A solution is formed when a _____ dissolves in a _____.
2. To make a solution, we need a _____ and a _____.
3. Stirring a solution helps the _____ dissolve faster.

C. Case Study:

Riya and Sam decided to make lemonade. Riya added sugar and lemon juice to a glass of water. She stirred the mixture until the sugar dissolved. Sam, however, added sugar to cold water but did not stir it. After a few minutes, Riya's lemonade was sweet and clear, while Sam's still had sugar at the bottom.

Case Study Questions:

1. Why did Riya's sugar dissolve faster than Sam's?
2. What did Sam forget to do while making his lemonade?
3. How does stirring help in making a solution?
4. What can Sam do to dissolve the sugar faster next time?

D. Short Answer Questions:

1. What is a solution?
2. Name two examples of solutions we use in daily life.
3. How does temperature affect the process of making a solution?



E. Long Answer Questions:

1. Explain the steps needed to make a solution.
 2. Why is it important to mix or stir while making a solution? Give examples.
 3. Describe the difference between a solution and a mixture with examples.
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