

Solubility Assignment – Student Edition

I. Vocabulary Puzzle

Use the clues to complete the spaces in the puzzle.

Clues:

1. Having a low number of particles per volume.
2. Particles dispersed in a liquid, which settle over time.
3. A solid that dissolves
4. When a solution has dissolved maximum solute.
5. A solute and a solvent.
6. When a solid does not dissolve.
7. A liquid which dissolves a solid.
8. Having a high number of particles per volume.

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II. True or false

Decide if the following statements are true or false. Correct the false ones to make them true.

1. When a solid dissolves, the particles are mixed up amongst the liquid particles.

2. Increasing the temperature of a solvent decreases the solubility of a substance.

3. A dilute solution has many particles per unit volume.

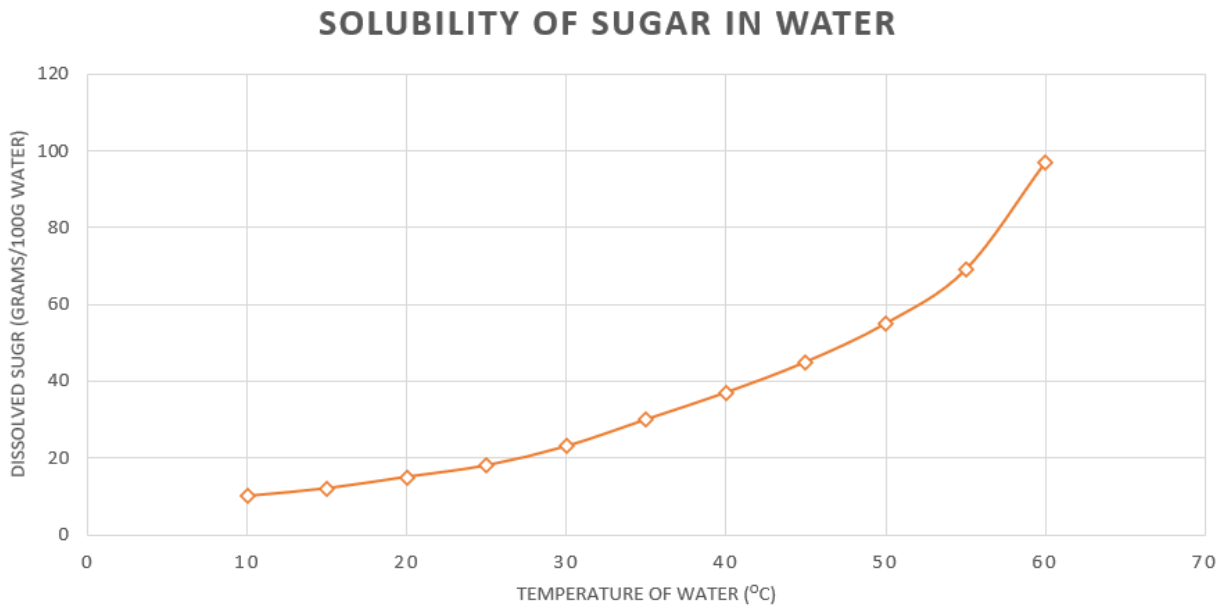
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- 4. More solute can be dissolved in an unsaturated solution.

- 5. Adding more water to concentrated solution will increase its concentration.

III. Interpreting Information

Study the graph below of the solubility of sugar in water. Use it to answer the questions that follow:



- 1. Identify the solute. _____
- 2. Identify the solvent. _____
- 3. What was the solubility of sugar at 35°C? _____
- 4. Describe the trend shown in this data.

- 5. If the solubility of sugar is 34g/100g at 55°C what does this mean?

- 6. Predict what would happen to the solubility if the temperature was increased further?

