Mission Assignment: Explain how a solution is made

KS3-06-02

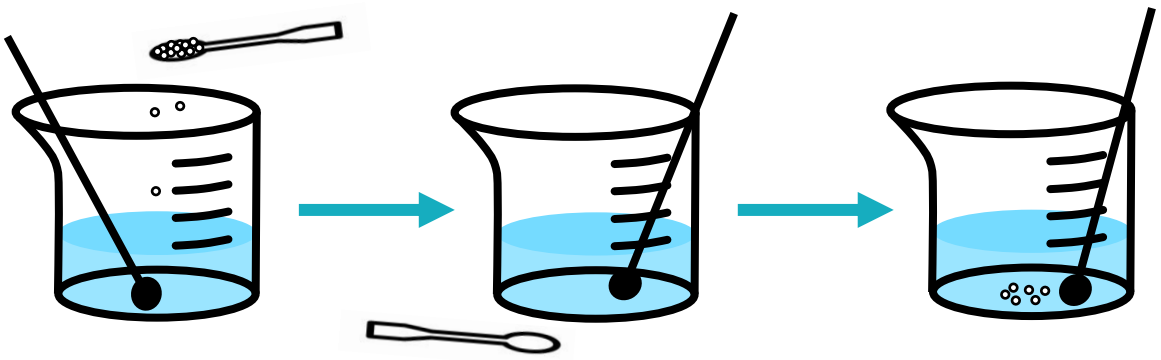
Investigate how the saturation point of water is affected by its temperature.

Method

1. Fill three beakers with 150 ml of water. One beaker should have cold water in it, one should have room temperature water, and the third should have hot water in it.
2. Add a level spatula of solute to each beaker of water and stir to make a solution.
3. Keep adding solute to the three beakers until the saturation point of one beaker is reached i.e. when
4. the solute remains visible in the solution.
5. Each time a spatula of solute is added, tally it in the table below.
6. Once a beaker has reached its saturation point, no more solute should be added to it.
7. Keep adding solute to the beakers whose saturation point has not been reached.
8. When the second beaker is saturated, continue adding solute to the third unlit that is finally saturated too.

Equipment

- Soluble substance (salt or sugar)
- Water
- Kettle
- Ice
- Beakers
- Spatula (or teaspoon)
- Stirrer



	Cold water	Room temperature water	Hot water
Number of spatulas of solute added			

Challenge: Explain how the water particles change as temperature increases and how this affects how easily a solute dissolves.

Mission Assignment: Explain how a solution is made

KS3-06-02

Questions

1. Which beaker of water do you think will have the highest saturation point? Explain your idea.

2. In this investigation, name the solute, solvent, and solution

   Solute: _____

   Solvent: _____

   Solution: _____

3. Describe the difference in saturation point between the three beakers of water.

4. Explain your results. Include all the keywords from the lesson in your answer.

Solvent	Solute	Solution	Dissolved	Saturation point