

Name: _____

Date: _____

Period: _____

Lab – Solubility of Sugar

I can design a technique to determine how temperature affects solubility.

Solubility - the ability of one substance (solute) to dissolve into another substance (solvent)

Procedure:

1. Gather the following materials: 500 grams of sugar, 250 ml beaker, triple beam balance, glass stir rod, Scoop, burner, thermometer
2. Collect 100ml of tap water
3. Measure & record temperature
4. Collect 500 grams of sugar
5. Slowly add a scoop of sugar to water
6. Stir slowly with glass rod
7. Continue steps 5 & 6 until some sugar remains undissolved in the water.
8. Mass the remaining sugar
9. Calculate the amount of sugar (solute) dissolved in the 100ml of tap water.
10. Dispose of water & carefully wash your beaker to be sure you have removed all of the sugar
11. Collect 100 ml of tap water and heat it on a burner until it is 50°C
12. Repeat steps 5 to 10
13. Repeat steps 11 & 12 but with 100°C tap water.

Data:

Water Temperature	Starting mass of sugar	Ending mass of sugar	Amount of sugar dissolved in water
	500 g		
50°C			
100°C			

Data analysis & Conclusions on the back

Data Analysis:

Graph Temperature of solvent vs. Mass of solute dissolved

[illegible]

Conclusions:

Referring to your graph and data discuss how temperature affects solubility. _____

[illegible]

Hypothesize as to the reason why warmer solvents allow for greater solubility. Think Ek or Eth. _____
