**Name: Date:**

**Solubility of Salt Lab**

**Day 1 & 2: Data Collection**

**Materials:**

1. 400 ml beaker
2. Glass stir rod
3. Hot plate
4. Balance
5. Thermometer
6. Scoopula
7. Weigh dish
8. Timer

**Procedure:**

**Part A:**

1. Fill the 400ml beaker with 100ml of distilled water.
2. Record its temperature.
3. Add 5.00 g of salt to the beaker and stir until the salt dissolves. Record the amount of time it takes for the salt to COMPLETELY dissolve.
4. Repeat step 3 until the salt will no longer completely dissolve, no matter how much the water is stirred. Highlight the total amount of salt added to the beaker at this point.

**Table 1**

|  |  |  |
| --- | --- | --- |
| **Total Amount of Salt Added**  **(g)** | **Temperature of the Water**  **(°C)** | **Dissolve Time**  **(00:00.0)** |
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**Part B:**

1. Place the beaker on a hot plate and heat the solution at a low setting until the temperature reads about 40°C.
2. Stir the water until all of the salt from Part A has dissolved.
3. Add 5.00 g of salt to the beaker and stir until the salt dissolves. Record the amount of time and temperature at which this occurred.
4. Repeat Step 3 until the salt will no longer completely dissolve in the solution. Highlight the total amount of salt added at this point and the temperature of the water.
5. Increase the temperature until the thermometer reads about 60°C.
6. Stir the water until all of the salt from Steps 3-4 dissolves.
7. Add 5.00 g of salt to the beaker and stir until the salt dissolves. Record the amount of time and temperature at which this occurred.
8. Repeat Step 7 until the salt will no longer completely dissolve in the solution. Highlight the total amount of salt added at this point and the temperature of the water.
9. Increase the temperature until the thermometer reads about 80°C.
10. Stir the water until all of the salt from Steps 7-8 dissolves.
11. Add 5.00 g of salt to the beaker and stir until the salt dissolves. Record the amount of time and temperature at which this occurred.
12. Repeat Step 11 until the salt will no longer completely dissolve in the solution. Highlight the total amount of salt added at this point and the temperature of the water.
13. Increase the temperature until the thermometer reads about 100°C.
14. Stir the water until all of the salt from Steps 11-12 dissolves.
15. Add 5.00 g of salt to the beaker and stir until the salt dissolves. Record the amount of time and temperature at which this occurred.
16. Repeat Step 15 until the salt will no longer completely dissolve in the solution. Highlight the total amount of salt added at this point and the temperature of the water.

**Table 2**

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| --- | --- | --- |
| **Total Amount of Salt Added**  **(g)**  **\*Be sure to include amount already added in Part A!** | **Temperature of the Water**  **(°C)** | **Dissolve Time**  **(00:00.0)** |
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