Experiment 2.10 – The Mass Of Dissolved Salt

Purpose

- To determine if a change in mass occurs when salt dissolves in water

Hypothesis

- You need to make a claim about whether or not you think a change in mass will occur when salt dissolves in water.

Materials

- Salt (NaCl)
- Water
- Plastic Vial
- Weighing Paper
- Paper Towel
- Electronic Balance

Procedure

1. Fill the plastic vial about ½ full of water
2. Mass 1.50 g of salt on a piece of weighing paper. In order to make weighing paper, fold a 4 in X 4 in square piece of paper down the middle.
3. Place the vial containing the water on the balance with the weighing paper and salt. Record the mass in the data table to the nearest 0.01 g.
4. Pour the salt into the vial containing the water.
5. Swirl gently until all the salt has dissolved.
6. Mass the vial with the salt water and weighing paper. Record this mass in the data table to the nearest 0.01 g.

Data Table

Table 1

Mass of System Before Dissolving	
Mass of System After Dissolving	
Change in mass (Δm)	

Table 2

Group #	Change in mass (Δm)	Group #	Change in mass (Δm)
1		9	
2		10	
3		11	
4		12	
5		13	
6		14	
7		15	
8		16	

Observations

- Record 3 observations about the lab

Calculations

Questions

1. Considering the precision of the balance, and all the results obtained by the class, what does your class conclude about the mass of salt and water as the salt dissolves?

2. Can you suggest any reasons why all the members of the class do not get the same mass difference?

Conclusion

- At least 4 paragraphs. See the "How to write a lab report" file on my website