**Is Ice Ionic? Yes!**

That’s your question for this lab. You may know the answer to this question already – it wouldn’t exactly be a shocking one, but with this lab I want you to examine an option you may not have considered: That ice is ionic.

Now, ice is not ionic. However, you’re going to be doing this lab in such a way that you’ll be trying to demonstrate that it is. You should do a variety of tests to make this determination and the bulk of the evidence should point to the fact that ice is ionic. Note: You may not falsify the results of any of your experiments, nor should you make your determination based on less than three tests. Keep good records and we’ll see how you do.

**Lab:** Use specific experimental data to demonstrate that ice is an ionic compound. You should include at least actual experiments below, along with their data and your analysis of why they show ice is ionic. You may be creative with how you interpret things, but may not lie outright.

**Experiment 1:**

* What it was:
* Result:
* Why this demonstrates that ice is ionic:

**Experiment 2:**

* What it was:
* Result:
* Why this demonstrates that ice is ionic:

**Experiment 3:**

* What it was:
* Result:
* Why this demonstrates that ice is ionic:

**Postlab questions:**

1) Do you believe that your experiments properly support the hypothesis that ice is an ionic compound? Explain your answer using data collected in these experiments.

2) Did knowing the desired result you wished to achieve ahead of time cause you to interpret the results differently than if you were doing the experiment without preconceptions? Explain your answer, and explain how this affect should be minimized when doing scientific experiments.