

Good Morning

- Please take a handout from the front.
- Begin reading it over.
- Get a laptop and a temperature probe.
- We will go over the procedure and a theoretical calculation.

Today

- Ice-Water Lab
- Time permitting: return/discuss core 3

Water and Ice lab

- You will calculate the theoretical heat of fusion for water.
- This will be done using calorimetry.

Procedure

- Get a 400ml beaker and fill it with hot water.
- Get a 250ml beaker and fill it with ice.
- Get a calorimeter and a thermometer.

- Mass the calorimeter. Record.
- Fill the calorimeter about half way with hot water. Mass and record.
- Take the initial temp of the hot water.
- Add a small hand full of ice to the hot water. Do not let water splash out of the calorimeter. Do not add water from the ice beaker.

- Stir the ice water mixture. You want to get a final temperature in the single digits.
- Once the final temperature levels out, record it on the data sheet.
- Mass the calorimeter with the cold water.
Record
- Dump water down the sink, dry the calorimeter, temperature probe and desk and return all materials to where you got them.

Calculations

- Mass of water: mass of hot water and calorimeter - mass of calorimeter.
- Change of temp of water: Final - Initial.
- Mass of ice: Final mass - mass of water - mass of calorimeter.
- Change of temp for water: final - 0.

Clarification

- Though we end up with all water at one temperature, assume that the masses of the ice and the hot water are two parts of a system.



Theoretical Data

- We will go through calculating the data for this lab.
- Take notes so that you can calculate the data for your lab later.

Reminders

- Walk slowly with hot fluids.
- Chairs and backpacks under desks.

Core 3

- I am handing back the third core.
- Check IC that the grade (out of 10) is the grade that appears on IC.
- Make ups tomorrow after school if you would like.
- Note concepts that you would like me to review.



- Mass of C: 18g
- Mass of S: 60g
- Unlimited oxygen

