Calorimetry Notebook

Friday, February 1, 2019 1:12 PM

2/1 - 1:05pm - 1:50pm

2/7 -1:25pm-1:55pm

Procedure for burning marshmallow outside the calorimeter:

1. Place marshmallow onto the paperclip contraption and weigh it in grams; collect how much the marshmallow weighs in lab notebook.

2. Fill the flask to 35 milliliters using a graduated cylinder, then place the flask in the calorimeter(shown below). Place a thermometer in the beaker and record the initial temperature of the water in degrees Celsius.

3. NEXT to the calorimeter (NOT inside), light the marshmallow on fire with the burner. When the marshmallow ignites, push the contraption under the calorimeter.

4. Gently stir the water using the thermometer after this point. Also use the thermometer to record the highest temperature of the water.
5. Take the paperclip contraption and weigh it (including both the contraption and the leftover food), and then record that in lab notebook.
6. After this, repeat steps 1-5 for the other half of the marshmallow pieces, replacing the water in the beaker each time and dumping out the leftover particles from the experiment before.

- Calorimeter
- Graduated cylinder
- Hot glove
- Marshmallows (as food item)
- Erlenmeyer flask
- Heat shield

Date	**Marshmallow (each piece = 1/8 of regular size)**	Temp. of water before experiment (C)	Temp. of water after (C)	Mass of food before (g)	Mass of food after (g)	Volume of water (mL)
2.1	Trial 1 (marshmallow fell off) - 2.6	21.2	22.7	3.92	3.86	35
2.1	Trial 2 (marshmallow fell off) - 2.6	21.8	24.6	3.76	3.58	35
2.1	Trial 3 (marshmallow fell off) - 2.6	22.1	23.0	3.43	3.39	35
2.7	Trial 4 - 2.7	21.2	26.0	3.5	3.3	35

- Things to keep in mind
    - Make sure pieces are "big and fat" and "flat and low" ==> so that they don't fall off