

Names: \_\_\_\_\_

# 4

## Light it Up Calorimetry of Food

With your group, you will create a procedure to determine the amount of energy stored in a food product of your choice from a collection of possible materials. You may need to reference online resources to aid you in the development of this procedure.

**Purpose:**

**Materials:** (only include the ones you plan to use)

**Procedure:** (use a list format to create a step-by-step procedure; be as specific as possible)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

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**Data:** (create a data table to show the relevant information that will help you look at how much energy is stored in the food; think about how you might measure the energy; you will also want to measure as much as possible about the food and liquid in the container)

**Analysis:** Calculate the number of calories in your food:  $\text{calories} = (\text{grams of water}) / (\text{Temp}_{\text{after}} - \text{Temp}_{\text{before}})$ . Ms. Wilson should have pre-determined calorie values listed for you. Compare them to the values you calculated.

Do the pre-determined values match up with what you measured? Why do you think this happened? If the energy is less in your food than the pre-determined amount, explain where the energy might have gone. If it is more, where did it come from?

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**Conclusion:** Pull it all together! Summarize what you did, what your results were, how they compare with the pre-determined values, and how could you make this experiment better? PLEASE WRITE USING COMPLETE SENTENCES!