

Heat Review:

Name _____

1. What is specific heat capacity? Explain differences between high and low specific heat capacities. Explain how you calculate specific heat capacity.

2. How does calorimetry work?

3. A student burns a piece of food collects the following data:

Mass of food before burning 15.15g

Mass of food after burning 12.35 g

Mass of water 100.00g

Temperature of water before burning 25.0 °C

Temperature of water after burning 33.5 °C

Use the data to calculate the heat released by the food into the water.

Heat = mass_{water} x change in temperature of water x 0.001 Cal/g °C

Calculate the Calories per gram of food burned.

4. Explain why an experiment should be repeated several times.

5. Explain what a calorie is.

6. Explain what information you can get from a nutrition label and why it is important.

7. If a student gets the following data from the food burning lab where the accepted value is 5.00 Cal/g, what would you suggest to him or her to improve their results?

Trial 1: 3.55 Cal/g

Trial 2: 1.08 Cal/g

Trial 3: 2.47 Cal/g