Honors Chemistry Hour\_\_\_\_\_ Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dr. Wexler

Specific Heat Capacity Worksheet 2

Date:

1. A 500 g piece of iron changes 7°C when heat is added.  How much heat energy produced this change in temperature?

2. When 300. cal of energy is lost from a 125 g object, the temperature decreases from 45.0°C to 40.0°C. What is the specific heat of this object?

3. 1,200 cal of heat energy is added to a liquid with a specific heat of 0.57 cal/g°C.  If the temperature increases from 20.°C to 33°C, what is the mass of the liquid?

4. A piece of food is burned in a calorimeter that contains 200.0 g of water.  If the temperature of the water rose from 65.0°F to 105.0°F, how much heat energy was contained in the food?

5. If 5750 joules of energy are added to 455 grams of granite at 24.00 C, what is the final temperature of the granite? Cp granite is 0.79 J/g oC.