Name _____ Period _____ Date _____

Activity 3.1 Calorimetry Lab

Directions: Make sure that the distance between the bottom of the can and the piece you are testing is only about an inch or so.

Part 1. Add _____ml of water to your can. Remember 1 ml = 1 g for water so you do not need to "weigh" the water.

Part 2. Find the mass of your 2 Marshmallows using the very accurate balance, record here _____g
Part 3. Remove the thermometer from the can - Burn your food by lighting from the below.
Part 4. Water Temp before _____ Temp after _____ Difference = _____ ^{o}C
Part 5. Calculate the number of heat calories produced by your food sample.

_____^{o}C X _____g = _____calories (heat)
Change in Temperature — Mass of Water

Part 6. Find **Food** Calories
_____ ÷ 1000 = _____Calories (food)
Heat calories

Part 7 Take the Calories from Part 6 and divide by the mass of the food you started with.
_____Calories ÷ _____ grams of food = _____ number of Calories per gram (C/g)

Repeat the Steps above for the other two foods. Record all of the data into the table below.

	Mass of water (g)	Water temp **Start**	Water temp **finish**	Δt	Heat calories	Food Calories	Food Calories /gram	Published Calories/ gram
Marshmallow								
Chip								
Oil								

Notes about each part: