Name: _____ Section: _____

Data and Calculations for Experiment 6

Be sure to record all numerical values to the correct significant figures and include units!

Identification of metal _____

Mass of DRY metal _____

Mass empty calorimeter _____

Mass calorimeter with water _____

Mass water _____

Initial temperature of water in calorimeter _____

Initial temperature of hot metal
(before adding it to calorimeter) _____

Final temperature of water + metal
in calorimeter _____

ΔT_{water} _____

ΔT_{metal} _____

1. Calculate the experimental specific heat of the metal. Show Calculation and units:

2. Find the accepted value for the specific heat of your metal in the table below (from the *CRC Handbook of Chemistry and Physics*). Calculate the % error of your experimental specific heat.

Metal	Accepted s_{metal} (J/g °C)
Al	0.903
Cu	0.385
Zn	0.387