

Heat and Temperature Change Lab Report Sheet

REPORT SHEET

There are two documents to upload to the “Heat and Temperature Change” assignment in the lab block. One is this report sheet, as described below. The other is the “selfie” described below.

You can either:

- Print out the report sheet, record the measurements as you make them, and show sample calculations by pen directly on the sheet. Once the sheet is ready, either scan it or take a picture of it. You can upload the image using the “assignment” feature on our Moodle site. Make sure the image or scan you upload has a jpeg (.jpg) or a .pdf extension

or

- Work online on the report sheet, save your word file (save it as yournameheat.doc) and upload the sheet.

NAME: _____

DATE: _____

C. Exothermic process

note: remember to include your units when reporting data

Mass of egg: _____

Mass of empty calorimeter: _____

Mass of calorimeter plus water: _____

Mass of water: _____

Temperature of water the egg is sitting in (after 12 min): _____ °C ($T_{\text{initial, egg}}$)

Did you turn off the stove? Yes / No

Initial temperature of the cool water in the calorimeter: _____ °C ($T_{\text{initial, cal}}$)

Final temperature of the water in the calorimeter
before it begins to fall: _____ °C ($T_{\text{final, cal}} = T_{\text{final, egg}}$)



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ΔT_{water} : _____

$q_{\text{water}} = q_{\text{surr}}$: _____

*(hint: procedure contains the specific heat capacity of water)
show your work*

$q_{\text{egg}} = -q_{\text{surr}}$: _____

C_{egg} : _____

show your work

D. Endothermic process

Mass of weighing boat plus baking soda: _____

Mass of weighing boat after transfer: _____

Mass of baking soda transferred to calorimeter: _____

Mass of empty calorimeter (from part A): _____

Mass of calorimeter plus vinegar: _____

Mass of vinegar in calorimeter: _____

Mass of solution: _____

Initial temperature of the vinegar in the calorimeter: _____ °C ($T_{\text{initial, cal}}$)

Final minimum temperature of the vinegar in the calorimeter : _____ °C
($T_{\text{final, cal}}$)

$\Delta T_{\text{vinegar}}$: _____

$q_{\text{vinegar}} = q_{\text{surr}}$: _____

(hint: assume that the specific heat capacity of the vinegar is the same as that of water) Show your work.



$q_{\text{reaction}} = -q_{\text{surr}}$: _____

q_{reaction} divided by mass of baking soda: _____

Observations (what did the baking soda look like? What happened when you added it?)

After you have recorded your final temperature, take a “selfie” with you and your endothermic experiment. This “selfie” should also display the setup you used for the endothermic process, including all supplies. Upload your ‘selfie” to the Heat and Temperature Change assignment in the Moodle lab block



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