

# SPARK Science Lab Worksheet

SPARK Hybrid Education Center | Upper Nov Lab Wk4: Thermochemistry

Student Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Purpose

Investigate: Thermochemistry

## Materials

- \* Materials for advanced thermochemistry lab
- \* Protective equipment
- \* Data sheets
- \* Calculator

## Procedure

1. Review background: Exothermic vs endothermic; enthalpy; activation energy; cata
2. Form a detailed hypothesis with expected data ranges.
3. Conduct lab: Calorimetry lab: measure heat of combustion of a candle
4. Record quantitative data with units.
5. Calculate results and determine percent error where applicable.

## Data / Observations Table

| Trial/Sample | Independent Variable | Dependent Variable M | Calculated Value | % Error |
|--------------|----------------------|----------------------|------------------|---------|
|              |                      |                      |                  |         |
|              |                      |                      |                  |         |
|              |                      |                      |                  |         |
|              |                      |                      |                  |         |
|              |                      |                      |                  |         |

## Analysis Questions

1. What was the quantitative result of this Thermochemistry lab?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. Was your hypothesis supported? Cite specific data values.

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3. Calculate the percent error if an accepted value is known.

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4. What systematic error might affect these results? How would you eliminate it?

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## Conclusion

In my own words, what did I learn from this lab?