Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_ Date \_\_\_/\_\_\_/\_\_\_

**Sources of Electrical Energy**

**Lab #4 – Generate Electricity with Heat**

**Equipment and Materials**

* 18 inch of copper wire
* 18 inch of iron wire
* Galvanometer or voltmeter
* Candle and matches

**Procedure**

1. Strip 3 inch of insulation from each end of both the iron and copper wires.
2. Connect each wire to the galvanometer.
3. Twist the other end of the iron and copper wires together tightly.

**Caution:** Do not overheat the junction of the two wires in the next step. Remove the wires fromthe flame from time to time and let them cool.

1. Light the candle and hold the twisted iron-copper “thermocouple” over the flame, and watch the meter needle carefully.
2. Observe the meter when the wires are heated and when they are cooled.