**Post-Activity Assessment – Option 1**

Prepare a research report that includes the elements listed below.

1. Statement of Goal
   * What is the goal of this design problem?  What are the constraints?
2. Dimensions and data for your most optimized fiber:
   * Photo of fiber next to a ruler, photo of resistance being taken with a multimeter.
3. Calculations written out for your most optimized fiber:
   * Photo of calculations of cross-sectional area, resistivity.
4. Data calculations page:
   * Photo of calculations page (back of worksheet) with data for at least five fibers.
5. Write a conclusion paragraph that includes the following:
   * *My/our optimized fiber has a resistivity of…*
   * *I/we found that the key to decreasing resistivity was (graphite content/wire diameter/other)… Explain using your data*
   * *Resistivity is not the same thing as resistance because it measures…*
   * *It is important to have a low resistivity in fibers because…*
   * *Fibers of graphene or graphite are called organic electronics because…*
   * *Graphene/graphite is used in development of these fibers because it has the following properties…*
   * *This type of fiber can potentially be used for…*