

Name:

Date:

Class:

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?

Dimensions and data for your most optimized fiber:

- Photo of fiber next to a ruler, photo of resistance being taken with a multimeter.

Calculations written out for your most optimized fiber:

- Photo of calculations of cross-sectional area, resistivity.

Data calculations page:

- Photo of calculations page (back of worksheet) with data for at least five fibers.

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...*