Assessment Tool (Rubric): Because the major assignment for this lesson is considered a “lab activity,” I will use the same grading rubric as I did in the previous lesson. The rubric is included below.

1. On-Task Behavior:

5 Points: The student is intensely engaged in all phases of the laboratory investigation: the student is active in designing the experimental protocol; assists in set up of apparatus and collection of data; continuously interacts with other lab group members regarding the reliability of the measurements being made; ensures that data is recorded and secured (i.e. the data is saved in multiple locations, appropriately named and labeled, accessible to all lab group members); is never distracted by other studies or students and does not distract other lab groups.

4 Points: The student clearly displays four of the five behaviors.

3 Points: The student clearly displays three of the five behaviors.

2 Points: The student clearly displays two of the five behaviors.

1 Point: The student clearly displays one of the five behaviors.

1. Care in Collecting and Recording Data:

5 Points: The student exhibits great care and awareness in carrying out the experiment: the student ensures lab apparatus is set up and used safely; makes certain that the protocol is followed and that it will lead to accomplishing the goals of the investigation; makes measurements that reflect the appropriate level of precision for the instruments being used; in consultation with the other members of the lab group makes appropriate adjustments to the experimental setup to ensure the quality of all measurements; uses appropriate criteria for judging whether measurements should be discarded or made again.

4 Points: The student clearly displays four of the five behaviors.

3 Points: The student clearly displays three of the five behaviors.

2 Points: The student clearly displays two of the five behaviors.

1 Point: The student clearly displays one of the five behaviors.

1. Overall Understanding:

5 Points: The student’s work clearly demonstrates a full understanding of the appropriate concepts. The student uses appropriate terminology and makes connections.

4 Points: The student’s work somewhat demonstrates understanding of the appropriate concepts. The student uses appropriate terminology and makes some connections.

3 Points: The student’s work vaguely demonstrates understanding of the appropriate concepts. The student uses some appropriate terminology and makes some connections.

2 Points: The student’s work barely demonstrates understanding of the appropriate concepts. The student uses little appropriate terminology and makes few connections.

1 Point: The student’s work fails to demonstrate understanding of the appropriate concepts. The student uses no appropriate terminology and makes no connections.