**Cell Respiration Lab Report Guidelines**

**(30 points)**

1. Title (2pts)
   1. Include the variables. “The Effect of I.V. on D.V.”
2. Introduction (4pts)
   1. Introduce the experiment. Relate the experiment to concepts learned in class. Explain why we did the experiment in the first place.
   2. Describe the experiment. (A step by step procedure is not necessary.) Be sure to explain why KOH was necessary.
3. Hypothesis (2pts)
4. Data Presentation (10pts)
   1. Data table: Calculate the average change in volume for germinating vs. non-germinating beans. Then calculate the standard deviation and standard error.
   2. Graph the average change in volume for germinating vs. non-germinating beans. Include standard error bars.
   3. T-Test. Do a T-Test to determine if the germinating volume changes are significantly different from the non-germinating volume changes.
5. Conclusions and Discussion (12pts)
   1. Interpret the data. Discuss what your results mean when you consider the original experimental question.
   2. Address the validity of the experiment. Were there any errors or issues in terms of the experimental design or conducting the experiment that should be addressed? (Note: there is no perfect experiment. You must identify at least one issue.) Are you still confident in the results? Why or why not?
   3. Discuss a way(s) to change and improve the experiment.
   4. What is a question(s) for further investigation? What experiment would you like to do next?

* Do not use the first person.
* Submit your lab report as a Word document to TurnItIn. Choose “upload a file”; do not choose “copy and paste” when submitting to TurnItIn.
* Due 10:00pm Thursday 3/5/15.