FORMAT FOR LABORATORY REPORTS

1. All labs require a lab write-up. Labs can be either informal (10 points) or formal (25 points). The laboratory report is the method by which the experimenter conveys the essence of an experiment to a reader.
2. Data collection must be done in class on the ipad. The lab write should be started in class and may be finished at home. They are due the next school day after the completion of each activity and are submitted using infinite campus. In addition a copy of each lab is kept in the lab section of your notebook.
3. The final report must be in your own words. If a report is identical to another student grades will be zero for all involved students.
4. The required components are:

**LAB # NAME:**

**TITLE OF EXPERIMENT PARTNER’S NAME:**

**ABSTRACT:** This section is included in all lab write-ups and summarizes your lab report. It belongs at the very beginning of your paper, but should be written last. Use bullets or a graphic organizer to show that you have included all aspects of a scientific explanation. (CER)

* **QUESTION:** Write a question showing what you are investigating in the activity.
* **CLAIM:** A claim is a statement about the results of an investigation. It is a one sentence answer to the question you investigated. It should state what you can conclude about the relationship between the dependent and independent variable.
* **EVIDENCE:** In words explain how your data (qualitative and quantitative) supports your claim.
* **REASONING:** This section ties together the claim and the evidence. It shows how and/or why the data count as evidence to support the claim. It should include one or more scientific principles that are important to the claim and evidence.
* **ERROR ANALYSIS:** Include major sources of errors in labs that require you to calculate specific values. Not all labs will require this section.

Note: The next three sections will be included in formal labs only. (25 points)

 **PURPOSE:** State the problem being examined briefly in your words.

 **MATERIALS:** State the instruments and chemical used.

**PROCEDURE:** Give a brief description of the method followed. DO NOT copy the directions from the lab.

All labs (formal and informal) will include the following sections:

**DATA and OBSERVATIONS:** This is the most important section of the lab report. It includes both quantitative measurements and qualitative observations. Whenever possible create an organized data table. Make sure you include units and be careful of significant figures.

**ANALYSIS OF DATA:** You will usually need to work with data to get the information needed to solve the problem. Include all formulas used and make sure you show all your work. You will not get credit for answers only. Be careful of significant figures and always include units. Graphs are very often used to make relationships apparent. Graphs must be done using your computer (insert chart or excel) or ipad (use graph paper in noteability). All graphs must have an appropriate title. The x axis is for the independent variable and the y axis is for the dependent variable. Remember to label each axis and include units. Not all labs will require a graph.

**QUESTIONS:** Answer any questions stated in the lab. Do not copy the questions; just rephrase the question in your answer.

**SUMMARY and ERROR ANALYSIS:** In each experiment the final answer to the original problem should be stated. If there are questions in the summary make sure you address them. If you are asked to calculate your percent error use the formula given on table T of your reference table. If you are asked for an error analysis include specific examples of where you could have made an error. Look at all measurements made and never respond by saying human error.