

Cricket Experiment Lab Report Directions

***please also use the “Scientific Method Lab Report” outline to write your own lab report (see next page in packet)**

Purpose: You will be doing an online simulation of a lab that follows the scientific method. You need to record the data and then generate a lab report using the *Scientific Method Lab Report* Rubric that was given out and will be used again (so don't lose it!). Be careful to not just use these directions, but to follow the report outline, including headings for each section of your report.

Note: Give yourself plenty of time (at least 30 minutes each) for both the demo and the cricket online lab as you cannot go back at certain points in the simulation.

Directions:

To Start:

1. Go to: http://webapp.gccaz.edu/academic/biology/scientific_method/ (this is a safe, educational site)
2. On the opening screen, select *continue* (you do not need to enter a username)
3. Enter your first and last name and continue
4. At this point, go through the *tutorial first*, as this will help you gain a better understanding of and review the scientific method.

Note: with certain questions, you have to get them right to continue, so make sure you pay attention. This can take a little time, but it is very helpful!

5. Next, go through the **Cricket Experiment**. As you do through the *Cricket Experiment*, take notes, record your data, and use it to create a typed lab report following the given *Scientific Method Report Rubric* outline format. Download the skeleton outline of the lab report to help you with your formatting!
6. Your written report should have clear heading for each section, include: *title*, *introduction* (background & hypothesis), *methods and procedure* (materials, procedures, variables), *results* (replication, data, graphs), *conclusion*, and *work cited*. Keep in mind that there are subsections under each of these headings, as shown in the parenthesis. Some sections can be lists (materials, procedures, variables) but complete sentences should be used whenever possible.

Have paper and a pen or a word document open as you go through to make sure you take notes on what you need in your report. You do not want to have to go back through the simulation as you finalize your lab report. WRITE MOST OF THE REPORT AS YOU ARE GOING THROUGH THE SIMULATION!!

Hints:

For the **background**: include the statement of the problem and some of the background info they tell you about (minimum of a paragraph).

For **procedures**: pretend as if you are actually doing this experiment in a lab with a real cricket and write the procedures from that perspective.

For the **hypothesis**: you may have to have multiple hypotheses at first. A hypothesis can be wrong, that is fine, as long as you still learn something.

For **results**: make sure to collect your data in a table as you go! Once you leave a screen, that data will be gone if you have not written it down. You can use my example data table, or create your own.

*Run the experiment with *at least three* different independent variables (things that you change) while keeping everything else constant (you may need more depending on what you find). So you will need three different tables! In your report, you still only need one hypothesis, but make sure to include each table.

Example data tables: you may copy and paste, but be sure to change title and variables as needed

Temperature

Trial	Variable manipulated: _____	Chirp Speed per min
1		
2		
3		

Graphing: Turn *at least one* of your data tables into a graph for your report. You only need to graph one table (which table to graph should become obvious). Be sure to label all axis, include units and include a title for your graph. Don't forget a brief explanation of your graph.

Conclusion: Be sure you are summarizing in your own words, not just copying what you see in the simulation.

Work Cited: don't forget to site where you got the information! I have provided the MLA style citation for you this time. However, if you use other information, like your textbook don't forget to cite that too, in MLA 8th edition. You can copy this for your report:

Williams, Wayne, and Paul Williams. "Scientific Method." *Cricket Experiment*. Glendale Community College, n.d. 30 Aug. 2013. Retrieved from http://webapp.gccaz.edu/academic/biology/scientific_method/

Try to be concise! I do not want really lengthy reports full of fluff. Be direct and to the point.

Due Date: Bring a hand-written, *completed* 1st draft to the first class for credit. We will then go over any questions you have, concerns, and important points of the report. You will get a chance to bring your 1st draft home, revise it, and resubmit the final version on the 2nd class period for the full 50 points.