

Name \_\_\_\_\_

Scientific Method: The Cricket Lab

Before you begin, save this Lab Report Template on your computer as LastNameSciMeth

Read all the instructions below BEFORE you start!

Purpose:

- To practice the steps of the Scientific Method
- To learn how to use an OnLine Lab simulation
- To determine which environmental variables influence how fast a cricket chirps
- To practice constructing data charts and graphs.

Hypothesis:

Cricket chirps are affected by \_\_\_\_\_

Procedure:

1. Go to [https://www.gq.maricopa.edu/biology/glacier/scientific\\_method/index.swf](https://www.gq.maricopa.edu/biology/glacier/scientific_method/index.swf)
2. Follow instructions below for how to get into the site  
YOU DO NOT HAVE TO LOGIN...Click *Continue* and then enter your first and last names
3. Do the tutorial on scientific method first if you want to review the steps (*optional*)
4. Follow the instructions for investigating the role of environmental variables on cricket chirps.
5. Write your results in the data charts below **Values in red are the baseline (control values)**  
For your investigation, choose values that are higher and lower than those indicated in red.  
You may add rows to the data chart as needed.  
*You need to record as you go because this OnLine site does not work well if you use the back button!*
6. Graph your results using Create-a-Graph (<http://nces.ed.gov/nceskids/graphing/>) or Graph-Pad (<http://antoine.frostburg.edu/cgi-bin/senese/graphpad.cgi>)  
Hint: Cricket Chirp Rate is the dependent variable and will be on the y-axis on all graphs!  
You only need to construct graphs for the variable(s) that affect cricket chirp rate.

Results: (Data Charts and Graphs):

Discussion:

*(Summarize what you did, describe your results, indicate whether or not you met your purpose or supported your hypothesis, indicate sources of error, and suggest improvements in the experimental design.)*

Conclusion:

*(One sentence testable statement about which variables affect cricket chirps)*

Reflection:

*(Personal commentary about what you learned from the lab activity, simulation)*

