**Natural Selection**

*Go to the Natural Selection Simulation at* [*www.biologysimulations.com*](http://www.biologysimulations.com)

Experimental Question: How does environment affect the survival of these organisms?

**Procedure:**

1. Click on “Introduction” to read about the simulation.
2. Write a **hypothesis** for each environment:
3. Desert Sand:
4. Mountain Rock:
5. Grassland:
6. Run the simulation 3 times for each environment (desert, mountain, and grassland) and record your data.
7. Calculate and record averages for your data.
8. Complete the analysis and discussion questions.

**Data:**







**Graph:**

Graph the average data for each environment.

**Analysis:**

Describe and explain the results from each environment.

**Discussion:**

1. Describe factors that can cause environmental change.
2. Describe industrial melanism and the effect it had on peppered moths.
3. Describe an example of another species that has undergone evolution in response to human driven changes to its environment.
4. What could lead to different populations of the same species living in different environments?
5. Grizzly bears and polar bears are very closely related, so much so that they can reproduce to form hybrid offspring. Use your understanding of natural selection to describe how polar bears became a separate classification from the grizzly.
6. Describe how grizzly and polar bear evolution may be affected by climate change.