**Inquiry into Animal Behavior**

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_

AP Biology, Mrs. Oldendorf

**Homework:**

**Go to the website**: <http://www.phschool.com/science/biology_place/labbench/lab11/intro.html>

Read through the lab tutorial and complete the lab quiz. Record your answers here:

1. 2. 3. 4.

**Answer the following questions regarding the online lab:**

1. How do isopods orient themselves with respect to moisture?
2. Was orientation achieved through taxis or kinesis? Explain.
3. How might this behavior show ultimate causation?

**Now it’s time to design your own experiment:**

On a separate sheet of paper, or on the back of this sheet, complete the following to design your own animal behavior experiment.

**Problem**: Design a controlled experiment to test a hypothesis about a specific case of animal behavior.

**Background:** Animals exhibit a variety of behaviors, both learned and innate, that promote their survival and reproductive success in a variety of ways. Many behaviors have a genetic and learned component. You may consider using round worms, drosophila, pill bugs, earth worms, etc.

Here some suggestions for variables: *Temperature, light, pH, substrate (surface –wet/dry, etc)*

**Materials**: Materials are dependent on the design of your experiment. We will not be performing these labs or carrying them out, so the materials you list are the ones you would require should you actually perform the laboratory.

**Procedure:** What are the steps you will follow in order to set up your experiment. Be specific as to how you will set it up and collect your data, and how you will be evaluating the effect of the variable you are testing.

**Analysis:** How will you analyze your results? How will you be able to do a chi-square analysis? (You must be able to do a chi-squared analysis on your results)