**Your name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

***Full* names of your lab group members:**

* (add more bullet points for more lab members)

**Instructions**

Answer the questions about your termite experiment below. *Although you are basing your answers on group work you did in class, you must submit your own answers in your own words*.

Please answer all questions in a different (visible!) color, such as red or blue. You should fill out THIS specific document - do not make a different one! Please leave the questions as written, and simply provide your (colored!) answers in the space below each question. **You MUST submit your final assignment as a PDF document or there will be a 10% penalty.** To save as PDF, you should go to Print, and then print to PDF rather than to an actual printer. Please see Dr. Spielman in office hours for further clarification.

1. Write the alternative hypothesis you tested, and its corresponding null hypothesis, in the space below in *two clear sentences*.
2. Explain your experimental setup according to each prompt:
   1. In 2-4 sentences, explain the precise setup of your control and treatment groups. You should describe the exact way you set this up (i.e “We took two separate pieces of identical white printer paper and used one for control and one for treatment. For the control, we drew…..” 🡨 you are allowed to begin with my words here if it helps you!)
   2. What were your independent and dependent variables? Answer in 1 sentence for each variable.
   3. Consider your dependent variable further: Think of and explain one other way you could have measured termite behavior, and explain at least one drawback for the measurement you chose. Answer in a total of 2-4 sentences.
   4. Explain precisely how you incorporated *replication* into your experiment (how many termites per group? how many trials? etc.) in 1-3 sentences.
   5. Describe, in 1-3 sentences total, **one** confounding factor that you identified and were able to address. Describe both what the factor is, and how you addressed it.
   6. Describe, in 1-3 sentences total, **one** confounding factor that you identified but were NOT able to address. Describe both what the factor is, and how you *would have addressed it* given enough time/resources, etc.
3. In the space below, insert a **table** showing your results. As we saw in class for the thyroxin and acetylcholine examples, you will have (at a minimum) two columns: One for your independent variable (i.e, control and treatment), and one for your dependent variable (the recorded measurement). If you conducted multiple trials, you should add a third column indicating the replicate number the results pertain to. *Make sure your table is on a single page and does NOT cross a page break!*
4. Interpret your results: Do they support the alternative hypothesis, or fail to support the alternative hypothesis? *If they fail to support*, do the results support a different conclusion, or are they inconclusive? Explain in 1-3 sentences total.
5. In 2-3 sentences, explain what your results *would have shown* (generally speaking – you don’t need to come up with a new table or specific numbers) if you had the OPPOSITE findings. For example, if the data supported the hypothesis, suggest one way data could have looked to NOT support the hypothesis, and vice versa,
6. In 1 sentence, explain what your results have proven to be true about termite behavior. *Think carefully here!*