EPS 200 (Stapleton) Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Experimental Design Project Grading Checklist

**Point Values:** 3 = Excellent! 2 = Present, but with minor flaws 1 = Major flaws 0 = Missing

**Presentation Quality:**

1. \_\_\_\_\_ Narration clarity -- Is the narration clear and easy to understand?
2. \_\_\_\_\_ Visual clarity -- Can the audience clearly see what needs to be seen in order to fully understand the presentation?
3. \_\_\_\_\_ Reasonable time table – Does the audience have enough time to read the captions and digest information?
4. \_\_\_\_\_ Overall impression – Is this easy to watch (as opposed to it being painful and difficult)?

Bonus. \_\_\_\_\_ Exceeding expectations – Did the creators of this presentation go beyond what was required in the context of creativity, cinematography, scientific meticulousness, or some other facet of their production?

**Question and Variables:**

1. \_\_\_\_\_ Is the question stated clearly?
2. \_\_\_\_\_ Did you clearly identify the independent and dependent variables?

**Hypothesis:**

1. \_\_\_\_\_ Does the hypothesis provide a specific prediction about how the independent variable will affect the dependent variable? *[This can be done without using the words “independent variable” or “dependent variable.]*
2. \_\_\_\_\_ Did you provide a reasonable, logical explanation given for choosing this hypothesis?

**Materials and Methods**

1. \_\_\_\_\_ Are the methods shown in enough detail so that a viewer could repeat your steps and achieve similar results?
2. \_\_\_\_\_ Did you clearly communicate your sample size and confirm that your study amounted to *at least* a 10x10 test?
3. \_\_\_\_\_ Did you clearly show/demonstrate your measurement tool or process? [If you used a written test or special equipment, you should have included detailed still photographs so that viewers can pause the video to scrutinize their content.]
4. \_\_\_\_\_ Is it clear from the video that your measurements are accurate and precise?
5. \_\_\_\_\_ Did you clearly show how your measurement process resulted in **numbers** that could be used in later statistical testing?
6. \_\_\_\_\_ When applicable… if bias was a significant issue in your study, did you take reasonable steps to eliminate it? Did you at least discuss how you dealt with it?
7. \_\_\_\_\_ When applicable**…** if your investigation posed a question about large populations of individuals (e.g. boys vs. girls), you should have made an effort to sample a representative cross-section of those populations. If this applies to your investigation, did you explain how this was done in your video? Was your sampling method logical? At the very least, did you explain how your sampling *should* have been done?

**Controlled Variables:**

1. \_\_\_\_\_ Did you list and discuss **at least three** important variables – and explain how you controlled them?

**Possible Confounding Variables:**

1. \_\_\_\_\_ Did you list and discuss at least two confounding variables that you may not have been able to control?

**Results:** provide the audience with both a narrow view and a broad view of your data. Show all of the data points. Then show a summary of your data.

1. \_\_\_\_\_ Did you share a visual representation conveying the full extent of your data points? (e.g. data table, scatter plot…)
2. \_\_\_\_\_ Did you share a concise summary of your data (e.g. averages, simple bar graph…)

**Statistical Testing:**

1. \_\_\_\_\_ Did you name the type of statistical test that you used?
2. \_\_\_\_\_ Did you show at least one screen shot of the web calculator’s calculations (including both your entered data and the p-value)?

**Conclusion:** Give the answer to the question that you set out to answer.

1. \_\_\_\_\_ Did you explain what your p-value says about your null hypothesis?
2. \_\_\_\_\_ Did you explain what your p-value says about your actual (alternate) hypothesis?
3. \_\_\_\_\_ Is the logic behind your conclusion sound? Did your test/experiment actually address your question? If not, did you at least provide an explanation regarding why you really did not test what you set out to test?

**Score =**