**Citizen Project Template**

***Directions****: This template is intended to structure your presentation for your end of year project. You can use this template to draft your thoughts or you can place these components and their responses directly into your final presentation.*

**Citizen Science Project**

***Name of project \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

***Group members name(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

***Project URL: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

**Question:** *What question(s) does this citizen science project attempt to answer?*

**Statement of Problem:** *Clarify the “real-life” problem the citizen science project is addressing in a clear and concise statement(s). The topic the c.s. project is investigating should be clearly understood by reading the problem statement.*

**Relevance:** *Explain why this project is relevant and meaningful to the general population. Why should someone care about the outcomes of this project?*

**Background Information:** *Synthesize the information needed to enhance one’s understanding of this project. This is information needed to understand the relevant scientific concepts as well as the purpose, relevance, methodology, and results of the study. Be sure to include intext citations as well as a bibliography.*

**Background Information (continued):**

**Hypothesis:** *Based upon both your observations and background research, develop a statement that predicts what you think will happen as a result of your investigation.*

**Experimental Design: *Develop an experiment to answer the question you proposed. A good experiment will result in accurate, repeatable results that may or may not support your hypotheses. The experimental design must include the following:***

* **Variables:** 
  + **Independent Variable – *What the scientist is changing on purpose to try and get an outcome that answers the experimental question.***
  + **Dependent Variable - *What will respond to (or depend upon) the independent variable. This response can be measured and/or observed either support or reject the hypothesis.***
* **Treatments**
  + **Experimental Treatment(s) – *The specific types or levels of the independent variable.***
  + **Control Treatment(s) – *The “normal”, unmanipulated type of the independent variable. The control is used as a basis for comparison to determine if the treatments had a different effect.***
* **Constants – *Part of the experiment that will remain unchanged throughout the experiment. The constants will ensure that the results generated during the experiment are only do to the independent variable, not other environmental factors.***
* **Number of Trials – *The number of times the experiment is repeated. The more the experiment is repeated with similar results, the greater the likelihood of the accuracy of the results.***
* **Draw a sketch of your experiment.**

**Materials:** *List all materials used during your participation in the C.S. project. This includes the tools needed to measure the data.*

**Procedure (big picture):** *Describe the methodology used in the C.S. project as a whole.*

**Procedure (your role):** *Describe how you participated in the C.S. project AND how this fits into the larger projects goals and methodology.*

**Data Collection:** *Develop an appropriate way of gathering & recording data during your participation in the C.S. project. If this is an electronic data entry process, include a screen shot and explain how you will access the site while in the field.*

Provide a sample data table before doing the experiment.

**Data Analysis:** *Construct a graph(s) to provide a visual means for understanding information learned during the C.S. project. This may include measures of central tendency (e.g, mean, median, mode), tests for significance and correlation, graphs, and observational anecdotes. Graphs should include a title, axes labels, and units of measurement.*

Provide a sample graph before doing the experiment.

**Conclusion:** *Refer to the data to determine if the experiment supports the hypothesis. Include the following:*

1. *Describe how the data supports or rejects your hypothesis, using specific examples from your data and your graphs.*
2. *Using your data collected, observations, and information learned through the C.S. project, explain what your results mean and why you think you got the results that you did.*
3. *Explain how your findings fit into the larger research goal of the broader C.S. project.*
4. *Using your data collected, observations, and information learned through project, propose ways in which your experiment can be improved and additional questions that can be answered through further research.*

**Conclusion Continued:Literature Cited:** *Give credit to the sources referenced in your experiment. See “Literature Cited” handout for help in properly citing your sources****.***