**Title**

First and Last Name

Group Members’ Names

Sample Start Date-Sample End Date

May 9, 2018

**Abstract**

* Purpose
* Key result(s)
* Most significant point of discussion
* Major conclusion
* Double spaced

**Introduction**

* Usually the Introduction is one paragraph that explains the objectives or purpose of the lab. In one sentence, state the hypothesis. Sometimes an introduction may contain background information, briefly summarize how the experiment was performed, state the findings of the experiment, and list the conclusions of the investigation. Even if you don't write a whole introduction, you need to state the purpose of the experiment, or why you did it. This would be where you state your hypothesis.
* *Why was this study performed?*
	+ Answers to this question may be derived from observations of nature or from the literature.
* *What knowledge already exists about this subject?*
	+ The answer to this question must review the literature, showing the historical development of an idea and including the confirmations, conflicts, and gaps in existing knowledge.
* *What is the specific purpose of the study?*
	+ The specific hypotheses and experimental design pertinent to investigating the topic should be described.

Materials

* Item 1
* Item 2….

Procedures

* Step 1….
* Step 2….
* Step 3….

Data

* Graph Tables: Tables and graphs are visual representations. They are used to organize information to show patterns and relationships. A graph shows this information by representing it as a shape. Researchers and scientists often use tables and graphs to report findings from their research. You need to make a graph that has the independent variable along the x-axis and the dependent variable along the y-axis. Your 8 Graphs will include time vs.:
	+ CO2
	+ O2
	+ pH levels
	+ Temperature of the environment
	+ Temperature of the soil
	+ Temperature of the water
	+ Ammonia
	+ Nitrates
* Graph Table Reflection
	+ Under each of the graph tables, you need to write 4-5 sentences describing the changes you are noticing with the ecosystem, a how the results supports or discredits the idea of human populated self-contained biomes.
* Pictures of the system: you need to include all three pictures from week 1, week 4, week 7, week 10, week 12 and week 14.
	+ Under each week, you need to write 4-5 sentences describing the visual changes you are noticing with the ecosystem, and how the results supports or discredits the idea of human populated self-contained biomes.
* Drawings/Pictures of the water and soil under the microscope. You need to include all three drawings/pictures from week 1 week, final week and at least 3 in between.
* Under each week, you need to write 4-5 sentences describing the visual changes you are noticing with the ecosystem, and how the results supports or discredits the idea of human populated self-contained biomes.

Claim

* Conclusion about a problem. Answers who, what, where, when and why (when possible)
* Concise statement (1-2 sentences)
* Relates directly to the question and hypothesis
* Focuses on only the most important features of the experiment or investigation

Evidence

* This is information that you will be using to prove your claim. For example, “to prove our (claim), we looked at CO2 level, O2 levels, pH levels,……, over the course of 13 weeks.

Reasoning

* Is a justification that shows why the data counts as evidence to support the claim and includes appropriate scientific principles
* 9 paragraphs
	+ Illustrates understanding of how experiment fits into the “big picture”
	+ Incorporates background knowledge, and makes connections to science concepts studied in class, to draw conclusions about experiment
	+ Take specific evidence and justify how that evidence connects to the claim

Reflection

* Small summary or story of an event that happened during the experience that stands out.
	+ list the main points or key experiences.
	+ personal response to the points
* Does the research challenge you or society socially, culturally, emotionally, or theologically? If so, where and how? Why does it bother you or catch your attention?
* How has the research changed your way of thinking? Did it conflict with beliefs you held previously, and what evidence did it provide you with in order to change your thought process on the topic?
* Does the research leave you with any questions? Were these questions ones you had previously or ones you developed only after finishing?
* Did the research fail to address any important issues? Could a certain fact or idea have dramatically changed the impact your results?

Citation

* + Anything you used to write this paper.
	+ Make sure that it is in proper APA formatting.