HSPVA Biology: Seed germination lab

You will design your own lab in order to investigate how a factor affects the number and/or rate of seed germination. Your group needs to discuss what you would like to investigate and how you will conduct the experiment. After you have discussed what you would like to investigate, fill out the following form.

Team Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Brainstormed ideas (at least 4 different ones)

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Problem statement (question you want to answer): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Independent variable:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dependent variable: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Constant variables: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hypothesis: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Materials needed (include amounts!)

Procedures: (These must be detailed enough for me to be able to conduct the same experiment!!!!)

**Seed Germination Lab Report**

* You will write a lab report for your seed germination lab.
* Your lab report must include the following:
	+ Title (2 pts)
	+ Team member names (2 pts)
	+ Pre-lab information:
		- Problem statement (2 pts)
		- Independent variable (2 pts)
		- Dependent variable (2 pts)
		- Constant variables (at least 5 important ones) (4 pts)
		- Hypothesis (2 pts)
	+ Materials (5 pts)
	+ Procedure (detailed enough so that anyone could repeat your experiment) (12 pts)
	+ Data-in a clear data table that is labeled and contains units (12 pts)
	+ Graph of your data (title, correctly labeled axes, units, correctly plotted) (15 pts)
	+ Analysis of data-describe the data that you collected in words. (15 pts)
	+ Conclusion-include the following: (25 pts)
		- Was your hypothesis right or wrong? INCLUDE and explain your DATA to support this statement.
		- What is the answer to your problem statement?
		- Explain the data that you collected. How do you explain the results?
		- Discuss any errors in the experimental design, and explain how you could improve this lab in terms of minimizing experimental error.
		- What is a related experiment that you might like to do based on the results of your experiment?