

Water Quality Project Research and Proposal

Field Ecology

For this project, you will investigate the relationship between the water quality and one other factor of Jackson Creek. Your goal will be to evaluate the correlation between all of the water quality parameters we've been studying (temperature, pH, turbidity, and dissolved oxygen) and one other measureable abiotic or biotic factor of the creek. The document you create today will be a proposed plan for your study. You should work individually on this assignment using Google Docs. When you are done, please submit your work through Showbie.

Proposed Water Quality Study:

1. Brainstorm five biotic (living) factors and five abiotic (non-living) factors that might affect or be affected by the water quality of Jackson Creek. List (and briefly describe, if needed) each of these factors (10 factors total).
2. Identify the ONE biotic or abiotic factor from your list above that you feel would be the most interesting and reasonable to study for your project. Make sure that this is a factor that you will definitely be able to observe and measure during the timeframe of the project (for example, "snow" would not be a good factor to look at because we can't guarantee that it will snow next week).
3. Do some research – what are some of the things you can measure about the factor you have chosen? Come up with at least 5 good measuring words to choose from.
4. Do some research into the possible interactions between your factor and the water quality of creek water and briefly document your research. You should look at all four of the parameters we're studying:
 - a. Temperature (how might this affect the factor you've chosen?)
 - b. pH (how might this affect the factor you've chosen?)
 - c. Turbidity (how might this affect the factor you've chosen?)
 - d. Dissolved oxygen (how might this affect the factor you've chosen?)
5. In "what is the relationship between" form, write a question that examines the interaction between your chosen factor and water quality. Write your question in the format: "What is the relationship between the water quality of Jackson creek and _____ (*measuring word*) of _____ (*biotic or abiotic factor*)?"