Water Quality Project Research and Proposal

Field Ecology

For this project, you will investigate either the turbidity or the dissolved oxygen of Jackson Creek. Your goal will be to evaluate the correlation between these parameters 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. When you are done, please submit your work through Google Classroom

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. Pick the ONE biotic or abiotic factor 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). List this factor here:

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. What can you determine about the possible interactions between your factor and the turbidity of creek water? Briefly document your research.

5. What can you determine about the possible interactions between your factor and the dissolved oxygen of creek water? Briefly document your research.

6. Based on the results of your research, choose a measuring word for your factor and pick EITHER pH or turbidity to investigate as a measurement of water quality. In "what is the relationship between" form, write a question that examines the interaction between your chosen factor and water quality parameter. Write your question in the format: "What is the relationship between the _____ (*either turbidity or dissolved oxygen*) of Jackson creek and _____ (*measuring word*) of _____ (*biotic or abiotic factor*)?"