

AMI Study Proposal

Field Ecology

This is an individual assignment. Please type your work and send it as a Microsoft Word attachment to dan.bregar@corvallis.k12.or.us. Your subject line should read "Per. X your name AMI Proposal".

1. **Introduction** –

- a. Question – In 2-3 sentences, write the “what is the relationship between” question that our class is asking for this study and add a few details that clearly explains what our goal is.
- b. Background Information (aquatic macroinvertebrates) – In 2-3 paragraphs, summarize the background research you have conducted regarding AMI’s and functional feeding groups.
- c. Background Information (turbidity) – in one paragraph, describe what turbidity is and how it is related to aquatic macroinvertebrates.
- d. Hypothesis – in one paragraph, explain what you think the answer to our question will be AND explain the scientific facts (from your research) that lead you to this prediction.

2. **Methods** –

- a. Aquatic macroinvertebrates – in a step-by-step list, describe the methods you will use to collect and count aquatic macroinvertebrates from the creek. Also include a detailed description of the calculations we will use to find the diversity of AMI’s in each collection area.
- b. Turbidity – in a step-by-step list, describe how you will measure the turbidity from your sites.

3. **Data table** – Include a blank data table that has room for all the AMI data you will collect and calculate, along with corresponding turbidity values.

4. **Proposed Analysis** – Describe how you will use the turbidity values you measure along with your calculated AMI diversity to answer your question. Be sure to explain how you will interpret your data table and graphs, including a brief discussion of how you will interpret your statistical analysis (the correlation you see and the R^2 value).