

Biology II Unit 12 Study Guide/Checklist

BioIIU12SG (Midway Field Study)

Research Question: What is the state of the Midway River at Northridge Park?

You are to complete a report that addresses each of the following guiding questions:

- A. Introduction -----
- Why do monitoring?
 - Threats to Midway?
 - How might this information be useful?
 - What might a participant gain from this experience?
- B. Midway Perspective -----
- What is the historical condition of the Midway?
 - What are some statistics of the Midway Watershed?
- C. Indicator Species -----
- What is a BMI?
 - Why are they useful in stream monitoring?
 - What are typical invertebrates one would expect to find in good or poor quality streams?
 - How does one collect them?
- D. Physical and Chemical Analysis -----
- What are some of these tests?
 - Why are they important in determining the health of a stream?
 - How do these factors affect stream life?
 - How does one conduct some of these tests?
- E. Using a Biotic Index -----
- What is a biotic index?
 - Why are they useful?
 - What information is needed to complete one?
- F. Results-----
- What results did the class get for the Midway?
- G. Analysis and Conclusions -----
- What did the biotic index tell us?
 - Compared to other years, were there any red flags?
 - What could be done to improve conditions on the Midway?
 - What did you learn as a participant?

Helpful Websites:

<http://waterontheweb.org>

www.duluthstreams.org

<http://www.fdlcc.edu/ei/rw/index.html>

Stream Report is due Tuesday, June 2

10pts Participation/Professionalism

20pts Report (test)

Report to include:

- **Organized**
- **Guiding Questions Answered**
- **Appropriate Graphics (tables, charts, graphs)**
- **Your Own Fingerprint (thoughts, analysis, originality, graphics)**

This last unit of the year will involve a field study of the Midway River, our home stream. You will be involved in learning how a stream is monitored for health, collecting data on our stream, and assessing the health of the stream using a biotic index and regional stream standards.