

# **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.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.