Stream Study Synopsis 5th—6th, upper

* Please encourage your students wear their own rubber boots if possible. If not, we have rubber boots to share with children and adults.

Hartley Nature Center

Summary

How healthy is Tischer Creek? Students conduct chemical analysis and record temperature, biotic quality and habitat observations to come to a conclusion.

MN Academic Standards

supported during HNC program. More standards can be supported with pre- and post lesson activities.

Science

5.4.2.1.1 ~ MN natural systems
6.2.1.2.1 ~ physical changes
6.2.1.2.2 ~ mass is conserved

Authenticity

Describe if/how this is an authentic experience for students

Goals & Objectives

This program will:

- Visit a stream or creek within Hartley Park
- Use physical and chemical measurements to determine its health

Students will be able to:

- Use scientific equipment to collect data
- Report the physical, biological, and chemical measurements of the creek
- Interpret sampling results to determine creek health

Activities

In the classroom:

- What is a watershed? How does Tischer Creek fit in?
- How do we measure stream health and why do we care?

In the field:

- Visit the creek and measure its health using temperature, turbidity, biologic sampling, and dissolved oxygen and pH testing
- Record results on data sheets

Bad Weather Alternative

Station Rotation:

- Observe aquatic macroinvertebrates using microscopes and magnifying glasses, if possible.
- Conduct temperature readings, turbidity testing, dissolved oxygen and pH testing using water samples brought in from the creek (HNC educators will bring samples in classroom before your arrival)
- Interpret sampling results to determine creek health
- Sketch organisms with the naked eye vs. microscopic view.