

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.



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

Science

5.1.1.1.1 Explain why evidence
5.1.1.1.2 Science is replicable
5.1.1.1.3 Observations
5.1.1.2.2 Science investigation
5.4.2.1.1 MN natural systems
5.4.2.1.2 Natural systems have parts
5.4.4.1.1 Human interaction
6.1.3.4.1 Investigate natural systems
6.2.1.2.1 Physical changes
6.2.1.2.2 Mass is conserved
7.1.1.1.1 Scientific bias
7.1.1.1.2 Science is repeatable
7.1.1.2.3 Scientific conclusion
7.1.1.2.4 Evaluate explanations others
7.1.3.4.2 Investigate natural system
7.2.1.1.3 Chemical changes
8.1.3.4.2 Safety procedures, tools
8.2.1.2.1 Chemical changes
8.2.1.2.4 Characteristics of acids
9.1.1.2.2 Evaluate the explanations
proposed by others
9.1.3.3.2 Scientific inquiry
9.1.3.4.2 Safe and appropriate
scientific procedures

Language Arts

5.8.1.1 C, D, 6.9.1.1 C, D, 7.9.1.1 C, D,
8.9.1.1 C, D, 9.9.1.1 C, 11.9.1.1 C

Authenticity

Data such as number of species and individuals contributes to Hartley's environmental data collection.

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:

(HNC educators will bring samples of water and macroinvertebrates in classroom before your arrival)

- Observe aquatic macroinvertebrates using microscopes and magnifying glasses.
- Conduct temperature readings, turbidity testing, dissolved oxygen and pH testing using water samples brought in from the creek.
- Interpret sampling results to determine creek health
- Sketch organisms with the naked eye vs. microscopic view.