

Environmental Learning Center of Goshen College

# Wonderful Wetlands 9th - 12th

#### **Program Description**

Immerse students in a wetland ecosystem by putting on waders to dip for small animals, identifying these critters and hiking around the wetland. Throughout each activity and game, students recognize physical and biological components of each wetland type and the important functions of wetlands.

## **Program Objectives**

Students will:

- Explore a marsh ecosystem and discover the plants and animals living there
- · Sample for aquatic macroinvertebrates, learn to identify them and utilize this data as an indicator of water quality

# **Program Outline**

Students rotate in groups through four different activity stations:

- 1. Wetland Dipping: Students use waders and nets to dip for aquatic macroinvertebrates in a wetland ecosystem.
- 2. Wetland Lab: Students use microscopes and field guides to identify aguatic macroinvertebrates. Then students explore how this data can be used to determine the water quality of the wetland at the time of the program.
- Hike: Students hike around the wetland participating in various age-appropriate activities.
- 4. Game: Students play a tag game to understand how water quality impacts macroinvertebrate populations.

### Vocabulary

- Wetland
- Macroinvertebrate
- Invasive Species
- Pollution Tolerance Index

#### Quick Facts

Season	Fall: September - November Spring: April - May Summer: June
Grades	9th - 12th
Program Length	4 hours
Maximum # of Students	80 Students

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B.3.2 Design, evaluate, and refine a model which shows how human activities and nat- ural phenomena can change the flow of matter and energy in an ecosystem and how those changes impact the environment and biodiversity of populations in eco- systems of different scales, as well as how these human impacts can be reduced.

Env.1.2 Understand and explain that human beings are part of Earth's ecosystems and give examples of how human activities can, deliberately or inadvertently, alter ecosystems.

Env.2.7 Differentiate between renewable and nonrenewable resources, and compare and contrast the pros and cons of using nonrenewable resources.

Env.5.6 Identify and explain the three levels of biodiversity: genetic, species, and ecosystem.

See Standards Correlations for Wonderful Wetlands for more academic connections

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