

# WETLANDS ECOLOGY

## LESSON PLAN



**WOLF RIDGE**<sup>SM</sup>  
ENVIRONMENTAL LEARNING CENTER



## CLASS DESCRIPTION: A Plant Ecology Class

After establishing a common vocabulary in the study of wetlands, students will gather data regarding the vegetation, hydrology, and soil composition of several wetland types including swamps, marshes, and peatlands. After returning from the discovery hike, students will analyze their data.

**Total time:** 3 hours (two hours outdoors)

**Audience:** 6-20 students, 4th grade through adult

**Activity level:** strenuous

**Travel:** 1 1/4 mile

**Total uphill travel:** 320 feet

## GUIDING QUESTION

What is unique about wetlands?

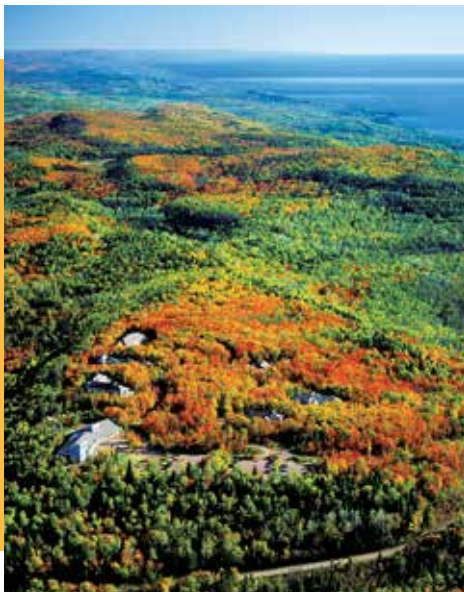
## CONCEPTS

1. All living and non-living components of an environment interact with one another to form an ecosystem.
2. Wetlands are a unique ecosystem defined by soil, plant, and water characteristics.
3. Humans have a great ability to alter natural systems, and a responsibility to consider the effects of our actions.
4. Wetlands are valuable for water storage and filtration, plant and wildlife habitat, and for their mystery.

## OUTCOMES

Upon completion of Wetlands Ecology class students will be able to:

- Define "wetland" and distinguish between several types of Minnesota wetlands.
- Summarize the formation and distribution of wetlands in MN and the US.
- Explain three values inherent in natural, undisturbed wetlands.
- Recommend actions to preserve healthy wetland environments.



**Our mission** is to develop a citizenry that has the knowledge, skills, motivation and commitment to act together for a quality environment.

6282 Cranberry Road | Finland, MN 55603-9700 | [www.wolf-ridge.org](http://www.wolf-ridge.org)

*Wolf Ridge Environmental Learning Center and the USDA are equal opportunity providers and employers.*



## Equipment

### In Kit

- Article of "bog man"
- backpack
- canteens

### At Wetlands Bldg

- posters
- rubber boots
- headnets

### Equipment for each group of 4

- soil augers
- clipboards
- data sheets
- wetland delineation booklets
- frog watch guide

### At Raven Lake Lifejacket Rack

- drainage model

## Appendices

- Glossary
- Additional Information
- Optional Activities
- References
- Sources
- Class Sheets
- Spiral Learning Sheet
- Planning Outline

## Set-up (15 min.)

- Classroom/class prep description
- Safety Management

## [Introduction & Travel to Wetlands Bldg (15 min.)]

### I. What makes wetlands unique? (20 min.)

- A. Characteristics
- B. Wetland Types

### II. How do we characterize wetlands? (15 min.)

- A. Local Wetlands
- B. Tools for Exploring

### III. What are wetlands like?(95 min.)

- A. Route
- B. Stop 1-Practice the Habits
- C. Stop 2-Marsh
  1. Wetland Formation
  2. Value
- D. Stop 3-Swamp
  1. Trees that like their feet wet
  2. Value
- E. Stop 4-Fen
  1. Drainage Basin Model
  2. Values

### IV. What makes wetlands unique? (20 min.)

## [Return to Wolf Ridge] (15 min.)

## Clean-up (15 min.)