

TREES AND KEYS

LESSON PLAN



WOLF RIDGESM
ENVIRONMENTAL LEARNING CENTER

TREES AND KEYS



CLASS DESCRIPTION: A Plant Class

Students will learn how to construct and use a simple dichotomous identification key. Given a map and a simplified tree and shrub key, students will travel between trees and attempt to identify them correctly. Temperate and tropical forests will be compared and students will learn about species diversity.

Total time: 3 hours (two hours outdoors)

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

Activity level: moderate

Travel: 1 1/4 mile

Total uphill travel: 200 feet

GUIDING QUESTION

What tools and techniques help us discover and identify the major trees at Wolf Ridge?

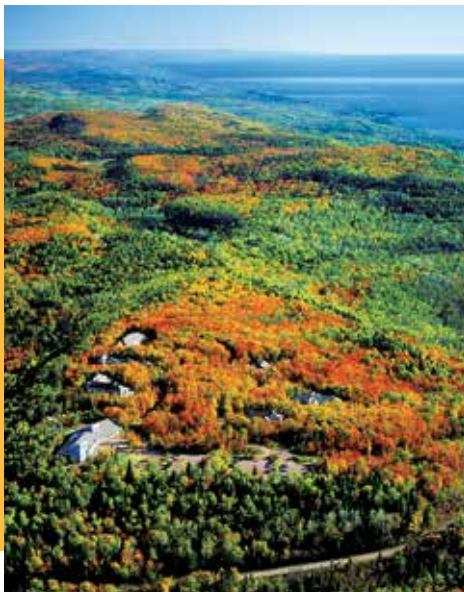
CONCEPTS

1. A growing human population is making increasing demands on natural resources.
2. Humans have a great ability to alter natural systems, and a responsibility to consider the effects of our actions.
3. A complex natural system is more stable than a simple one, and more able to absorb disturbances.

OUTCOMES

Upon completion of the Trees and Keys class students will be able to:

- Construct, understand and use a simple dichotomous key to identify up to 18 trees and shrubs around Wolf Ridge.
- Evaluate their role in the stewardship of natural resources.
- Appreciate the plant diversity found in the forests of Wolf Ridge.



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

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



Equipment

- 10 clipboards with pens and maps
- 1 Teacher clipboard
- 12 winter and summer keys
- 12 answer recording sheets
- scratch paper
- large iron key
- examples of tree keys
- Minnesota forest treasures poster
- difference in diversity poster
- 1 student i.d. key transparency
- 1 pet key transparency
- 1 winter/summer tree key transparency
- 4 Student Keys w/overhead markers
- 18 tree lore cards

Appendices

- Glossary
- References
- Sources
- Class Sheets
- Spiral Learning Sheet
- Planning Outline

Set-up (15 min.)

- Classroom/class prep description
- Safety Management

I. What do we think? (10 min.)

II. How do dichotomous keys work? (45 min.)

- A. What good are keys?
- B. Pet Key
- C. Creating a Kid Key
- D. Wolf Ridge Tree Key

III. What is it like to use a key? What trees live here? (110 min.)

- A. Practice Trees
- B. Start
- C. Check-in
- D. Optional Game with Tree Lore Cards

IV. What can we appreciate about diversity? (10 min.)

- A. Diversity is the Key
- B. Tropical and Temperate Forests
- C. Deforestation

V. What do we think now? (5 min.)

- A. Review
- B. Stewardship Actions

Clean-up (15 min.)