

Saint John's Arboretum Environmental Education Field Classes

Minnesota Biomes

Objective: Students will analyze and explore the historical and current natural landscape of Minnesota, including the prairie/grassland, coniferous forest, and deciduous forest biomes. Students will compare and contrast the abiotic factors influencing the biotic factors in each biome, along with historical use and human impact. Students will discuss and explore the ways of life of the native people and early settlers of central Minnesota and how human actions currently affect the landscape.

Field Activities:

Changes in Environments-Biome Analysis: Students will examine representations of the three biomes found historically in Minnesota: prairie, coniferous forest, and deciduous forest. Students will investigate how the abiotic factors (sunlight, soil moisture, temperature, and wind) and biotic factors (plant and animals) affect each other.

Prairie Life: This activity will allow students to discuss and experience what life was like on the prairie for Native Americans and early European settlers. Students will attempt to solve daily dilemmas people experienced living on the prairie.

Native American Games: This activity will allow students to experience some of the games Native American people use in their culture. Students will discuss what other purposes the games may have provided, besides entertainment.

Minnesota Symbols Quiz: This activity will allow students to use their knowledge of the important state symbols to participate in a quiz game. Students will discuss the incredible resources MN has and how they are important to humans and the natural world.

Key points covered in each class:

- Examples of abiotic factors (sun, soil, wind, temperature) that influence biotic factors (plant and animal life)
- The three biomes found in Minnesota (prairie/grassland, deciduous forest, coniferous forest) and where they were historically found, and currently found
- Components found in each of the biomes
- Culture and way of life of Native Americans and early European settlers who lived in central Minnesota
- Human uses of the biomes and how our actions affect the biomes

Minnesota State Social Studies Standards covered during activities:

MINNESOTA HISTORY GRADES 4-8			
II. MINNESOTA HISTORY	A. Pre-Contact to 1650	The student will demonstrate knowledge of Minnesota's indigenous peoples.	2. Students will explain the major historical aspects of Dakota and Ojibwe culture, social organization and history, and compare and contrast them.

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Minnesota State Social Studies Standards covered during activities (continued):

II. MINNESOTA HISTORY	C. Early Settlement and Statehood 1810-1860	The student will know and understand the factors that led to rapid settlement of Minnesota in the 19th century and the changes the new Minnesotans brought with them.	1. Students will explain why early settlers came to Minnesota and analyze their impact on political, cultural, and physical landscapes.
II. MINNESOTA HISTORY	E. Industrial Era 1865- 1914	The student will know and understand Minnesota's major industries and the economic, social, political, and technological changes that accompanied industrialization.	2. Students will describe the impact of industrialization on work, home, leisure life, politics, immigration, urbanization, and changes in the physical landscape.
II. MINNESOTA HISTORY	G. Post- World War II to the Present	The student will know and understand Minnesota's role in the major social, economic and political changes, both national and international, in the last half of the 20th century through the present, and analyze the impact of those changes.	4. Students will identify and describe significant land use changes in Minnesota, issues related to land use, and analyze the impact of those changes and issues.