

Flora of the Prairie

Lesson Description:

The Black Belt region's Selma Chalk lies beneath the Blackland Prairie. This area stretches from northeast Mississippi to west central Alabama forming a crescent shape. Tall prairie grass and native flowers once covered much of central Alabama. Millions of years ago a large portion of Alabama was once covered in ocean. As the ocean receded, the land became inhabited by plants. Grass was often burned by natural occurrences or by people settling the area 10,000 years ago. This frequent burning helped maintain the meadows, killing off trees and shrubs that tried to invade the area. The organic materials left behind, due to the many generations of grass, produced the black clay soil that gives the Black Belt its name.

By the 1800s, settlers flooded to the Black Belt region and cleared and tilled the prairies in order to turn the area into cotton fields. Today the Black Belt soil supports the many agricultural practices of the region, from crop growth to cattle grazing. Small amounts of prairie still exist today and are being conserved.

In this lesson, students will examine the flora present in the prairie, identify each one, then compare it to other biomes present in Alabama. Teachers are encouraged to take students on a small field trip (in person or virtually) to aid in the identification and comparison. Students can also journal about the differences in manicured landscapes and prairie using the questions posted below.

Standards from Alabama Sciences Course of Study

9th-12th Grade Environmental Science

#1 Students will identify Black Belt prairie flora then compare it to other biomes present in Alabama.

Objectives

- Students will distinguish between the native and non-native flora in the Black Belt.
- Students will identify flora species found in the Black Belt via one of multiple field trips options (either school field trip, guided field trip to UWA's Campus or virtual field trip) then compare it to species found in counties outside of the region.

Materials

- Prairie Roots card (provided)
- Alabama Plant Atlas <http://www.floraofalabama.org/>
- Map of the Black Belt
- Seek App
- Notebook and writing utensil

Activity

1. Show students on a map the regions the prairies cover. Have students look at the Prairie Flowers card. Which flowers are native? Which flowers are invasive and non-native to the prairies?
2. Browse the Alabama Plant Atlas. On the homepage, select your own county by clicking on the map. Peruse through the flowers and photos. Compare to another county present outside of the Black Belt (Shelby, Baldwin, Madison, etc)
3. Take students outside to a large grassy area. Locations such as the Prairie Restoration Project on UWA's campus are excellent locations. Students then identify via an ID book or Seek app all the different flora present. Compare the findings to a manicured area. **If permission can be obtained, students can pick and press flowers to create artwork. See flower pressing lesson plan for better details.**
4. (Alternative to #3): Students go out to a local field/natural area to look at prairie flora and take pictures. The best places to look would be alongside the roads or an open range of land. Have them journal a page or two about what flora they saw and where. Let students describe the flora they spotted, such as colors, size, and shapes. They can also use the Seek app to take photos and identify the flora and any fauna present as well.
5. (Alternative to #3, 4) View the virtual prairie field trip on the Black Belt Museum YouTube page. Certain flora will be highlighted and students can then identify them via the Alabama Plant Atlas and/or identification materials. Students can then compare results via flora found in other counties via the Plant Atlas.
6. Writing Assignment: Students should write an essay for question posted below. They can share their answers with the class or have it as part of a journal.
 - a. What are the major differences found between a manicured lawn and prairie area? Name at least 4 and describe the divergences.
 - b. Which area expressed greater biodiversity in flora and fauna? Why?
 - c. What was your favorite specie identified during the "field trip"? Why?
 - d. Did you find the Seek app beneficial in identifying species? Why or why not?

Evaluation #1 Complete #3 discussion and comprehension