



PRAIRIE TALES ON PRAIRIE TRAILS *2021

Grade Level: 4th Grade

Setting: Prairie Natural Area

Theme: A healthy prairie ecosystem is an important place where many special animals and plants make their homes.

Description: Students learn what a healthy prairie contains during a hike where they look for assigned species and/or their connections to the prairie ecosystem.

Time: 30-45 min

Recommended Group Size: 15

BIAS: Stewardship

FOSS Kit: Environments

State Standards: Life Science 2: Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior and reproduction.

Materials List:

- Background Information (Green Binder)
- Fact Sheet on Prairie Species
- Binoculars (one per student if possible)
- Prairie Species Pictures

ENGAGE (Introduction):

- Remind kids that a “tale” is a story and today the prairie will reveal its story of interconnections through the plants and animals that live here.
- Turn toward the prairie and ask the students to describe what they see.
 - Ask: Does the prairie look empty? Why are there few or no trees (harsh climate, storms, heat, winds, semi-arid)? Can someone give me a name of an animal that lives on the prairie?

Nat Note: Check to see if the students understand the meaning of semi-arid. Explain that this dry environment means there is not enough moisture for trees, plants are shorter, and many animals live underground. These are some of the ways plants and animals have adapted to the prairie environment.

- Ask: Has anyone heard of an ecosystem? Can anyone tell me what makes up an ecosystem? (A community of living and non-living elements interacting in their environment). For example, a prairie dog (living) digs into the soil (non-living).
- “Eco” comes for the Greek, *oikos* which means house. Ask: Can you find any plants or animals making a home here?

- Let them come up with ideas about what makes up their ecosystem- note a school is a good example as they all share this experience of food, water, shelter, space, and people who care about them.
- All of these things are like pieces in a puzzle and together they make your school complete.
- Ask: What if a piece is removed? What if your school had no bathroom or no cafeteria? Would it be as healthy or complete?

EXPLORE: (Show the prairie species pictures and explain the hiking activity.)

- Today we are going to discover what makes a healthy prairie home or a complete prairie ecosystem.
- Ask the students if they like to look for animals and plants on the prairie.
- Provide a picture to each student and have them look for their species along the hike and think about how they fit into the ecosystem. **Alternative-** Split the students into teams (based on number of photos). Teams can work together along the hike to find their ecosystem inhabitants and make inferences of their connections to the prairie ecosystem.
- When a student finds a prairie species or signs of one, have them point it out to the group. Discuss/review it's connection to the prairie ecosystem.

Nat. Note: The species on the pictures represent common Colorado prairie species. The students may not see the species but can see clues the species left behind or observe and find ways the species is connected to the prairie ecosystem. If time allows, establish 3-4 stopping points along the trail to stop and look at the interpretive signs or discuss connections between the common species and what they are looking at in the prairie ecosystem as they hike. The Naturalist can use the information sheet provided to expand on ideas presented and give fun facts about the prairie species. You can speed up or slow down your group as time permits.

EXPLAIN/ELABORATE: Done at the end of the hike at CR- When hiking to the cabin this is in the small valley BEFORE you get to the cabin and the bathrooms. When hiking from the cabin this is past the prairie dog colony and BEFORE leaving the trail to enter the parking lot.

- Gather students around and ask: How do you think all the species are connected to each other in the prairie habitat? Hand out species pictures (if they were collected back from the hike) and have the students make connections between them.
- You can discuss what happens if one of the plants/animals is missing from the nature web. See who is connected to it and discuss what may happen to the ecosystem if part of the food web isn't there.

EVALUATE/CALL TO ACTION:

- Talk about conservation of the prairie. Ask: Are there any ideas of how to be good stewards of the prairie? Don't dismiss any ideas.
- Give suggestions:
 - Learn everything you can about the prairie. The next time you are assigned a report for school, choose a native prairie species to learn about.
 - Visit natural areas and share what you know with your family and friends.

- Pick up trash, stay on trails to respect the plants and animals that live there.
- Remind students of the theme of the hike.
- Ask if they agree with this theme.
- Ask them to tell you their favorite part of the prairie ecosystem.



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