

**LESSON: Hoopin' It Up on the Prairie****GRADE: 5th****TIME: 45 min.****SUMMARY:**

The field leader opens with a discussion about the definition of habitat and types of plants, animals, and decomposers they would expect to find. Next students generate investigative habitat questions. Each group chooses one inquiry question to work on while outside. In the prairie, each group randomly tosses a hula-hoop into the prairie. Each group must follow their hula-hoop and work to find the answer to their habitat question. Students must also sketch and describe their hula-hoop habitat. Later students share their findings and make suggestions about how they would change or improve their investigation for next time.

OBJECTIVES: Iowa Core**Science****Ecosystems: Interactions, Energy, and Dynamics**

- **5.LS2.1** Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

Literacy**Speaking and Listening**

- **SL.5.1.** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.5.4.** Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.



MATERIALS & RESOURCES:

- Blank paper or nature journals
- Pencils & Colored pencils
- Clip boards
- Field Tools – thermometer, ruler, etc. (*optional*)
- Beginning field guides or ID sheets for prairie plants and animals
- Hula hoops – one per group

PRESENTATION:

Explain to students that today they are going to be conducting investigations about prairie habitat. Write the word “habitat” on the board. Ask a student volunteer to explain what the word habitat means. Discuss examples of plants, animals, and decomposers students anticipate finding on the prairie.

DIRECTIONS:

1. Tell the students that today they will explore a small portion of habitat. Before they can go outside to explore prairie habitats, they must come up with questions to guide their investigations. Help the students brainstorm questions. For example, are plants, animals, or decomposers more abundant in the prairie? How many signs of animal and insect life can we find in our prairie habitat? What creatures live in the soil? Guide students to ask questions that they will be able to answer by making observations outside. Record questions on the white board.
2. Explain that soon the class will be splitting into groups and heading outside to explore and try to answer their questions. Groups will be making observations to answer the questions they have about prairie habitats. Afterward, we will compare our observations and share our discoveries.



3. Help student prepare their journal entries by modeling on the board. **See example on final page.** Each student should select a question that they would like to answer during this investigation. This question should be written in their nature journals so that students will remember what they are investigating while they are outside. Ask students what they think will be the most important observations to record while outside. Have students split a page of their nature journals into four boxes and label each box with one important thing to observe outside. Examples might include: plant life, animal life, soil observations, and weather (temperature and moisture). On the next page of their journals, students should draw a large circle. This is where they will draw their observations.
4. Tell students that they are now almost ready to go outside to explore. Put students into small groups, and put an adult with each group if possible. When the class gets outside, each group will toss a hula hoop into the prairie and make observations of what is inside their hoop. While journaling, students should try to be quiet, so that each naturalist can think about their questions and concentrate on their observations. However, the adult leaders are welcome to ask their fellow naturalists questions or help the students look for details in their hoops.
5. Distribute one hula hoop to each group. Have all the groups form a single file line to get ready to head outside. Make sure that the students have all of their materials. Remind students that naturalists are happy outside, explorers, adventurers, respectful, prepared, responsible and quiet. They ask questions, use words, numbers and pictures, and share their discoveries.
6. When outside, provide them with boundaries. While the students are journaling, rotate among groups. Ask students questions like: How many types of plants have they found? What types of insects have they found? What is the soil quality in their hoop (hard/soft, wet/dry, silt/sandy/clay)? Have they found any signs of animal life? Why or why not?
7. After about 10 minutes, ask students to line up to head back inside. While students are walking to go back inside, they should think about the discoveries they made and get ready to share them with the other naturalists.



8. Ask the students to consider the questions they posed at the beginning of the activity. Ask them to write at least one sentence answering the question they chose in their journals. Encourage students to also write about things they discovered or anything that surprised them. Ask students to sketch a model of the movement of matter amongst plants, animals, decomposers, and the environment.

9. Ask student volunteers to share the question they had and the sentences they wrote to answer that question. Be sure to ask students how they came to their conclusions or what evidence they collected that supports their answers. Ask students how they might change or improve their investigation next time.

REFLECTION/JOURNAL PROMPT:

At the end of the lesson, explain to students that today they discovered how magical the prairie can truly be if they just look closely at it. It is so much more than grass and it can even be very different at different locations! There are endless discoveries to be made about different habitats. They don't even have to come to prairie to track these changes; they can do it in their very own yard, at a park, or anywhere outside. Explain that the world needs more naturalists who will stop to examine the beauty of different habitats and that because they did such a good job today, they seem like perfect candidates.



Journal Example

<p>Name, Date, Location, Weather, Time Prairie Habitat</p>		<p>How many different kinds of plants will we find in our prairie habitat?</p>	
<p><u>Soil</u></p>	<p><u>Weather</u></p>		
<p>-the soil is dark brown, warm and damp under the plants -soil temperature is 72 degrees</p>	<p>-78 degrees weather temperature -it is cloudy and warm</p>		
<p><u>Plant Life</u></p>	<p><u>Animal Life</u></p>	<p>I found four different kinds of plants growing in my hoop. Some were smooth yellow and others were scratchy and yellow.</p>	
<p>- There are lots of short yellow flowers with rough stems -there are four different kinds of plants in my hoop</p>	<p>-I saw six ant hills in my hoop -There a was a green grasshopper hiding and blending in with my plant</p>		