



*Revised 4/17/20  
Neal Smith National Wildlife Refuge*

## **Prairie Plants Change**

**3rd Grade**

**60 Minutes**

**Spring**

### **Summary**

Students share colors, lifecycle stage, and other details they observed of fall prairie plants by referring to their fall journal entries from “plant life cycles.” (If students do not have fall journal entries, they will speculate as to how prairie plants may have looked in the fall). Next, students make predictions and ask questions about how prairie plants may look during the spring recording these in their nature journal. Outside, students choose a prairie plant and use descriptive words and detailed sketches to portray prairie plants during spring and answer their inquiry questions.

Afterwards, students share their discoveries and explain how and why prairie plants change through various seasons.

### **Next Generation Science and Iowa Core Standards**

#### **Next Generation Science**

- **3-LS1-1**
  - Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
- **3-LS3-1**
  - Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.
- **3-LS3-2**
  - Use evidence to support the explanation that traits can be influenced by the environment.



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## **Literacy**

### **Writing**

- **W.3.2**
  - Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
  - Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.
  - Develop the topic with facts, definitions, and details.

### **Speaking and Listening**

- **SL.3.1**
  - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.3.4**
  - Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.
- **SL.3.6**
  - Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

### **Materials and Resources**

- Blank paper or nature journals
- Journal entries from fall (optional)
- Pencils
- Colored pencils
- Clip boards
- White board
- Dry erase marker

### **Presentation**



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Explain to students that today, they will be learning about the lifecycle of prairie plants and how plants change in different seasons. Write the words “prairie plants.” Gauge students’ background knowledge by asking them, “How do plants change throughout the year?” Facilitate further discussion if necessary. If students studied plants in fall during the “plant life cycle” lesson, ask them what they learned then. Have them refer to their journals.

## **Directions**

1. Next, draw a T-Chart on the board. Label one side of the T-Chart “Fall Plants” and the other side “Spring Plants”. Ask students to open their nature journals from their fall observations (if they have them) to help them find answers. Ask more guiding questions like what lifecycle stages did they find in the fall? Were most plants blooming or in seed? What color were the plants? What discoveries do they remember making about fall plants?
2. Explain that today they will be trying to figure out how plants have changed since the fall season. Ask students to predict differences that they may find between spring plants and fall plants.
3. Explain to the students that they are now almost ready to go outside and explore their prairie plants. Have students get in small teams with an adult chaperon. Pass out clipboards, datasheets and crayons/colored pencils to each student.
4. Help students prepare their journal entries by modeling it on the board. **See example on the final page.** Have students divide their paper into 4 quadrants. At the top of the entry include the weather, time, date, location, and title. Label the quadrants “Seeding”, “Sprouting”, “Blooming” and then “Lifecycle Discoveries”. Fill in the quadrants in on the board with possible questions and discoveries using words and pictures to provide students with an example. When they complete their data sheet, they can just focus on one plant or several plants. They should use the “Lifecycle Discoveries” quadrant to write a sentence or draw about something they never knew before or something that surprised them, or a possible question that came to their mind.



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5. Tell students that in a few minutes they will be ready to go outside to explore with small groups to different spots on the prairie. When journaling, everyone should try to be quiet, so that each naturalist can think about their questions and concentrate on their drawing. 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. Once outdoors, provide students and directions with boundaries. While journaling, rotate among groups. Ask students questions like: How many colors do they see on their plants? How many blooming plants have they found? What are the parts of the flowers that they can find? How do they know the difference between seeds and flowers? What shapes are the seeds and how are they moving? Have they found any seedlings? Why or why not?
7. After about 15 minutes, ask students to line up to head back inside. Instruct students that while they are walking to go back inside, they should think about the discoveries they made and get ready to share them with the other naturalists. Have students also contemplate why studying the lifecycles of plants might be important.
8. Once inside, walk around the room and look at the students' journal entries. Ask students what discoveries did they make about spring prairie plants today? What did they learn by looking closely at prairie plants? What lifecycle stage did they find the most of? The least of? Record their answers on the board under the "Spring Prairie Plants" side. Ask students to verbally explain how prairie plants have changed over the year.
9. If students drew similar plants, ask why there might be variations. Just like humans, we can all be the same species, but look slightly different. Do you think the environment a plant grows in influences what it looks like? Why or why not? Refer to journal entries for evidence.



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## Resources

### Reflection

At the end of the lesson, explain to students that today they discovered how magical plants can truly be if they just look closely at them. Tell students that if they like change, then they should study plants. Every day a plant changes- whether they bloom a flower, or grow taller, or change to brown in the fall, or gain seeds- there are endless discoveries to be made about prairie plants. They can do it in their very own yard, or park, or anywhere outside. Explain that the world needs more naturalists who will stop to examine the beauty of plants.

### Journal Prompt

	Name		
Weather		Date	
Temp	<u>Plant Investigation</u>		Time

