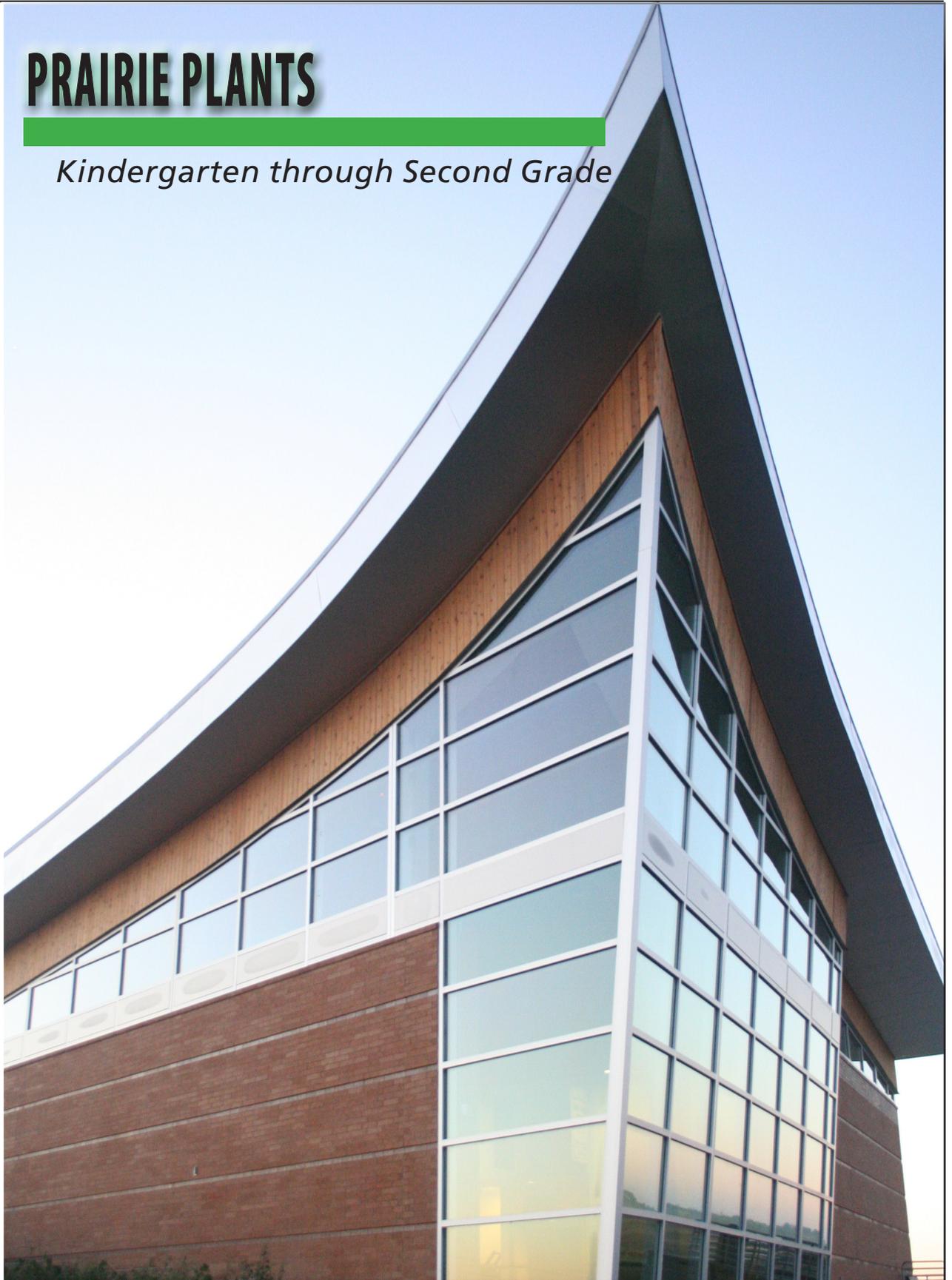


**Free Land was the Cry!**

# PRAIRIE PLANTS

*Kindergarten through Second Grade*



## Homestead

National Park Service  
U.S. Department of the Interior

Homestead National Monument  
of America, Nebraska



# ACKNOWLEDGEMENTS

## Coordinator

Tina Miller, Education Coordinator,  
Homestead National Monument of America

## Teacher Ranger Teachers

Craig Rafert, Social Studies Teacher at Sutton, NE  
Ellen Janssen, Fourth Grade Teacher at Beatrice, NE

## Layout Artist

Shayde Goracke-Voller, Graphic Designer

## Primary Authors

Tina Miller, Education Coordinator, Homestead National Monument of America  
Aubrey Streit Krug, University of Nebraska-Lincoln Graduate Student  
Tracy Tucker, University of Nebraska-Lincoln Graduate Student

## Interns

Sasha Denton, History major at Doane College  
Andy Fuxa, Communications major at Nebraska Wesleyan University  
Leah Goossen, Art major at the University of Nebraska-Lincoln

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Homestead National Monument of America  
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Tricia Parker, Reading/Writing Director, Nebraska Department of Education  
Deb Romanek, Mathematics Director, Nebraska Department of Education  
Vicki Scow, World Language Education, Nebraska Department of Education  
Summer Stephens, Director of Curriculum and Assessment, Beatrice Public Schools  
Larry Starr, Director of Social Studies, Nebraska Department of Education  
Jim Woodland, Director of Science, Nebraska Department of Education



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*Some of the ideas in this lesson may have been adapted from earlier, unacknowledged sources without our knowledge. If the reader believes this to be the case, please let us know, and appropriate corrections will be made. Thank you.*

# PROGRAM DESCRIPTION



What is a tallgrass prairie and which plant species live there? How have these species adapted to survive the harsh conditions of the prairie environment? How has the human understanding of the prairie changed over time? How have humans impacted and used prairie plants?

Activities and field experiences in this program help students answer these questions by exploring the past and future of the plants that make up the tallgrass prairie.

The geologic history of the North American continent shaped the soil and climate that forms the prairies, making a region with high humidity, intense heat, and decreased rainfall. Prairie plants adapted to these environmental conditions (for example,



with roots that form a dense, rain-holding sod, and with tall leaves and stems that catch sunlight and more water) in order to withstand heat and drought and thrive in an extremely variable climate.

People throughout history have used prairie plants: American Indian cultures found medicinal uses, for instance, and now scientists are researching plants' potential to function as biofuel. Human settlement of the tallgrass prairie region has contributed both to the depletion and the restoration of plants in the prairie ecosystem.

By studying plants on the prairie, students learn to identify species and adaptive characteristics, but they also begin to understand prairie plants within the wider contexts of ecology and environmental history.

# CURRICULUM OBJECTIVES

- Students can begin to define prairie in terms of their own and others' stories.
- Students can name several plants that grow on a tallgrass prairie.
- Students can identify basic plant parts, such as root, stem, etc.
- Students can describe what plants need to survive, such as water, nutrients, etc.
- Students will be able to imagine what it was like for the homesteaders on the prairie.
- Students will be able to name one thing homesteaders did with the prairie.
- Students will be able to name four colors they saw and two sounds they heard on the prairie or other area.

# NATIONAL STANDARDS

## NS.K-4.3 LIFE SCIENCE

As a result of activities in grades K-4, all students should develop understanding of

- The characteristics of organisms
- Life cycles of organisms
- Organisms and environments.

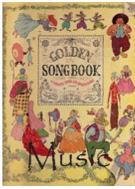
## NL-ENG.K-12.6 APPLYING KNOWLEDGE

- Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts.

## NSS-G.K-12.2 PLACES AND REGIONS

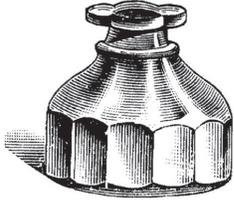
As a result of their activities in grades K-12, all students should

- Understand the physical and human characteristics of places.
- Understand that people create regions to interpret Earth's complexity.
- Understand how culture and experience influence people's perceptions of places and regions.

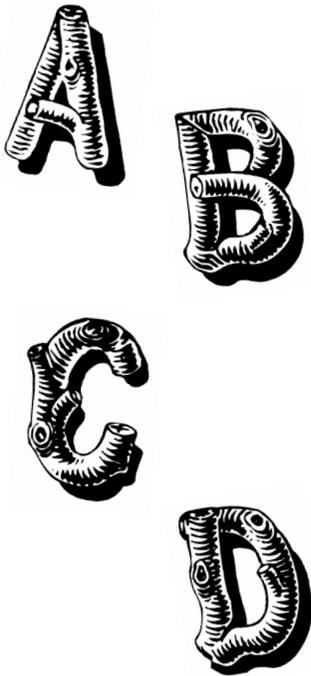
<b>SPECIAL ICONS</b>						
	Indicates a reproducible handout is included	Indicates an additional science activity	Indicates an additional math lesson	Indicates an additional social studies lesson	Indicates an additional music or art activity	Indicates an additional language arts lesson

## Pre-Visit Activity #1 (suggested)

### Enrichment Activities



Have students make letters in their own “prairie alphabet” to sum up what they learn.



## Other Activities

# PRAIRIE STORIES

## What Does Prairie Mean?

Ask students what prairie means to them.

For example: what do you think of when you hear the word prairie?  
How does the dictionary define prairie?

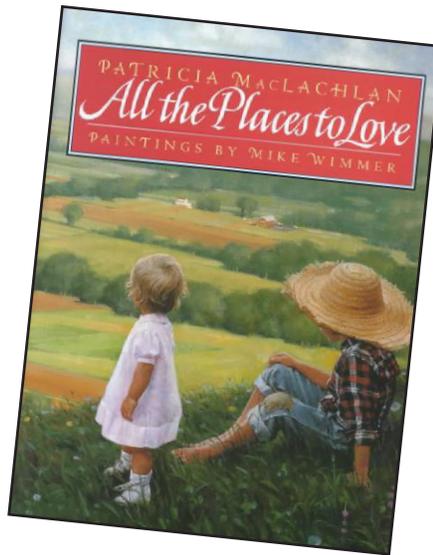
Read aloud one or more picture books on the topic, such as *A Prairie Alphabet*, *If You're Not From the Prairie*, *All the Places to Love*, or *A Tallgrass Prairie Alphabet*. A list of recommended books is located in the Additional Resources section.

**Afterwards, discuss students' answers to the questions:**

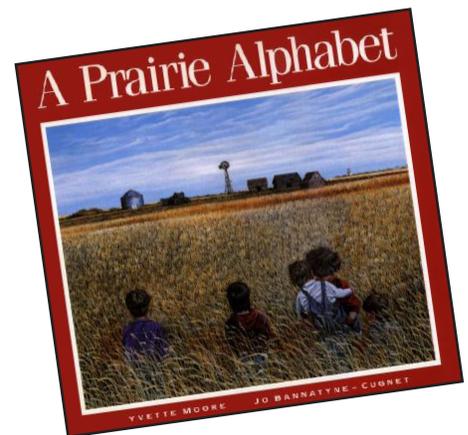
What does this book tell you about what a prairie is?

Where are prairies?

Do you live on one?



## Books to Read



## Language Arts



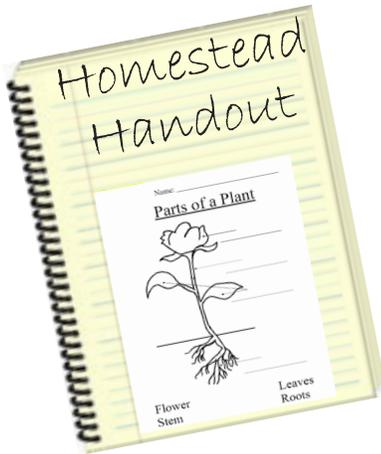
## Prairie Stories

Have students write and illustrate a story about prairies.

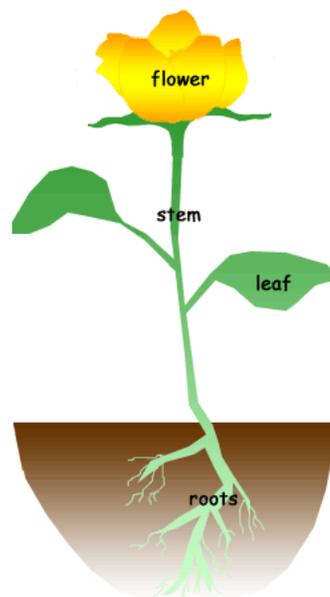
# PRAIRIE PLANTS

## Pre-Visit Activity #2 (suggested)

### Identifying Prairie Plants



Make copies of the Homestead Handout “Parts of a Plant” and have students identify the parts of the plant.



Using your own pictures/videos or the PowerPoint from Homestead National Monument of America’s website ([www.nps.gov/home](http://www.nps.gov/home)) located under the For Teachers section, show students several kinds of prairie plants to teach them plant names.

Review the parts of the plants as you show the pictures.

# RANGER-LED EXPERIENCE

## *Sounds of the Prairie*



### Listen To The Prairie

Most of the native prairie sod in the United States was plowed up for farm land by early farmers. There still exist some scattered remnants of native prairie, but they are few. The tallgrass prairie at Homestead National Monument of America is a restored tallgrass prairie. When Congress established the site in 1936, the uplands of the monument were eroded due to continual plowing and the drought of the 1930s.

The National Park Service decided to restore the tallgrass prairie to give visitors an idea of what homesteaders found in the “Great American Desert.” The restoration continues and the National Park Service manages this area as a prairie.

As you walk with the Park Ranger or teacher today make sure to listen for the sounds of the prairie, touch plants with Park Ranger or teacher permission, and smell the flowers and grasses.

## *Going Back In Time At The Homestead National Monument of America*

### Stop 1:

#### The Homestead Cabin – Introduction

A long time ago there were no houses, roads or towns as we know it. People moved west to start a new life. They built houses like this one. Reach out and touch the logs on the cabin. What do you feel? This cabin is over 100 years old. One family that lived here had 10 children. Where did the children sleep?

We are going to take a trip back in time. Pretend that you are one of the children who lived



in this cabin a long time ago. Let us find out what the world was like back then. We are going to walk out on the prairie.

# RANGER-LED EXPERIENCE

Listen to what the prairie has to tell you about long ago. See how many colors you can find and how many sounds you can hear. Remember you can touch some of the plants, but please don't pick them. Poison Ivy is along the trail and can make you sick, so be careful what plants you touch. Remember: leaves of three, let it be!

## Stop 2: Freeman Graves

(Read what is engraved on the tombstones.) Do you know of people who were buried on their farms?

Look out at the prairie. The prairie is a big place. The grasses can grow over my head about 6-8 feet and can get so tall that people disappear from sight just a few feet from you. Let's see if this is true. (If it's fall, do the next step)

Ask a volunteer to walk off the trail a short ways into the grass until you can barely see them. See how easy you can lose someone on the prairie.

The horses and milk cows eat prairie grasses like Big Bluestem and Indian Grass. Big Bluestem is called the ice cream grass because animals like it so much. The prairie was called a sea of grass. Close your



eyes. Imagine the grasses and flowers in front of you going on forever and forever. As far as you can see there is prairie and the sky, and nothing else. Your nearest neighbor is a mile or more away and this is your playground. What kind of games could you play? Reach out and gently touch the grass near you. Gently stroke the grass. What does it feel like? What color is it? Now listen to the wind as it blows through the grasses. Can you hear the grasses talking, telling you a story? What are they saying?

## Stop 3: Freeman's T

Stop at the beginning of the fence and show students Freeman's T Shaped land.

Look around you. Can you see grasses? Do you see any flowers? Grasses are not the only plants on the prairie. There were many different types of flowers like the sunflower and the prairie rose. The flowers added splashes of color to the prairie. When women came west to homestead, they may not have cared about the prairie, but they did like pretty prairie flowers. Women would sew seeds into the hems of their skirts to bring with them across the prairie.

## Stop 4: Native Plant Display

The prairie was your grocery store, the place where all you ate came from. Let's see what is in the



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# RANGER-LED EXPERIENCE

grocery store? (Find the compass plant.) Your brothers and sisters and you might have come to the prairie together to get the sap of a compass plant. You would tear off a few leaves and squeeze the sap out of the plant. You would let it dry up for a long while and then you would have chewing gum. Don't try this at home as it takes a long time to dry and if you don't get it dried correctly it will stick to your teeth.

Teas could be made from lead plant or bergamot.

And to make your cabin smell good you could use white or blue sage plants.

## Stop 5: Cub Creek



This is Cub Creek. It is a very old creek. Why would your homestead family move next to this

creek? Your family chose this spot because of the water and the trees. The creek supplied you with water to drink and water for your garden or crops like corn. It was very important. Animals came to the creek to get water. Animals like deer and rabbit were an important food source to you and your family. The trees gave you wood to heat the wood stove for your house and cook your food. The trees gave you wood to build a barn or shed or house or even a fence. What do you see and hear? Look carefully, you might see an animal getting a drink.



## Stop 6: Education Center

What did you see, hear or smell when you were on the prairie?



**Homestead National Monument of America is proud to be a pioneer in distance learning technology.**

**Contact the Education Coordinator at (402) 223-3514 to schedule your virtual field trip on Prairie Plants.**

# GROWING PRAIRIE PLANTS

## Prairie Plant “Recipe”

Based on your location and season, choose an appropriate prairie plant species to grow. Germinate seeds or obtain seedlings of the plant. Gather materials for planting, such as tools, soil, containers, water, etc.

With students, plant the seedlings in individual containers. As you assemble the “ingredients,” talk about how you are providing what the plant needs to grow: water, soil, light, etc.

Using the recipe cards provided in the Homestead Handouts, have students fill out a “recipe” that explains what this plant is and what it needs to grow.



Students can take plants home to care for or to give as gifts; plants could also be kept in the classroom for observation.

## Post-Visit Activity #1 (suggested)

### Science



Explore how plants and animals work together as an adaptation. Monarchs and milkweed, for example, are interdependent. Using purchased Monarch eggs (which arrive on milkweed leaves), raise Monarchs for release. Teacher support is available online, at this site: <http://www.teachingwithmonarchs.com/moninst.html>



# CHARACTER EDUCATION

## CARING

Caring students help, give, love, and are kind. You can tell a person is caring by what she or he does. They are caretakers of people, pets, plants, possessions and our planet, Earth.

### 5 Minute Focus

Discuss and list plants that grow on prairies such as tall grasses, sunflowers, milkweed, coneflowers, etc.

- What do they need to grow?
- How do we take care of them?

Fold a sheet of construction paper in half. Have students trace their hand on one side. On each finger write one of the things we are caretakers of. Draw a picture of a prairie on the other half of the paper.



# ADDITIONAL RESOURCES

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Bannatyne-Cugnet, Jo. *A Prairie Alphabet*. Tundra, 2009.

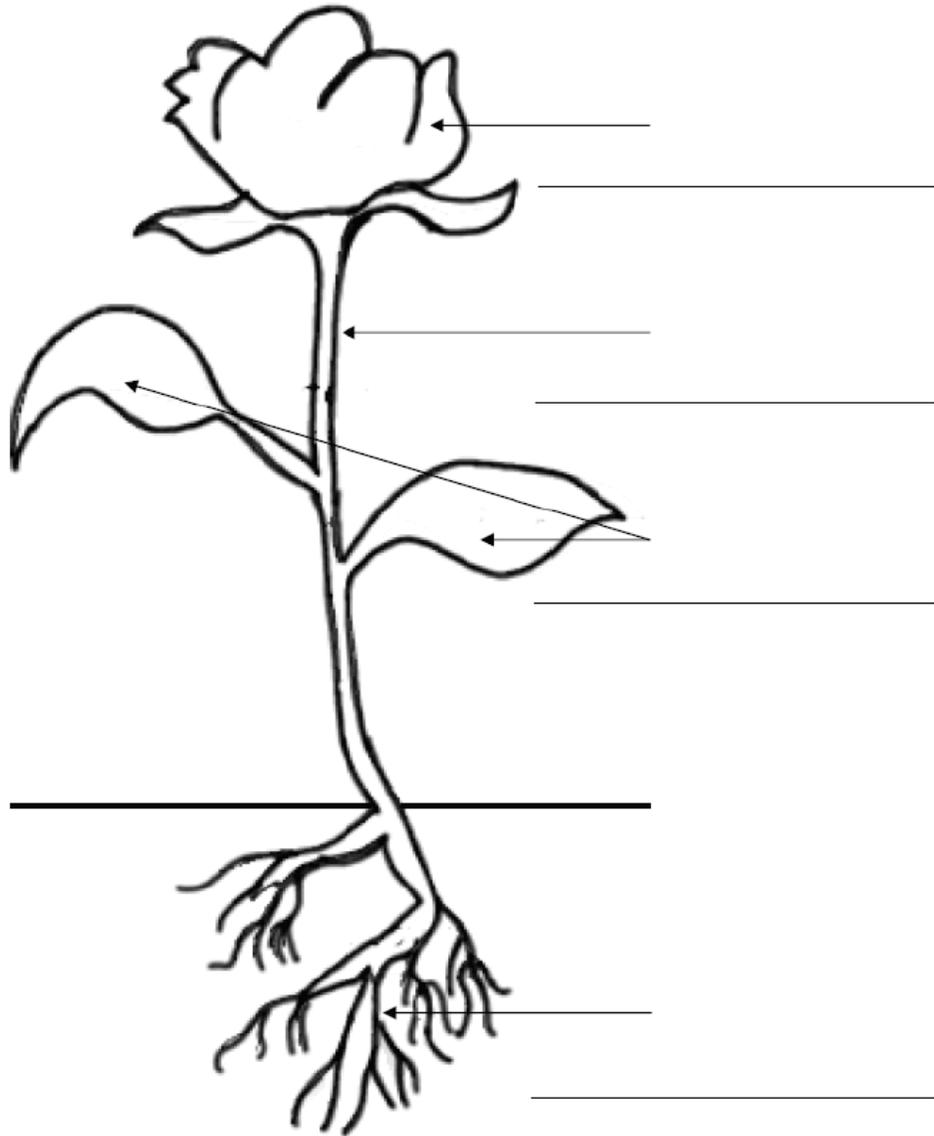
Bouchard, David. *If You're Not From the Prairie*. Raincoast Books, 2002.

MacLachlan, Patricia. *All the Places to Love*. HarperCollins, 1994.

McGehee, Claudia. *A Tallgrass Prairie Alphabet*. University of Iowa Press, 2004.

Name: \_\_\_\_\_

# Parts of a Plant



Flower  
Stem

Leaves  
Roots

Name: \_\_\_\_\_

### A Recipe for Growing Prairie Plants

Name and picture of plant:	Steps for how to grow this plant:  1.  2.  3.  4.  5.
Ingredients this plant needs to grow:	
1.	
2.	

Name and picture of plant:	Steps for how to grow this plant:  1.  2.  3.  4.  5.
Ingredients this plant needs to grow:	
1.	
2.	