

The Prairie That Nature Built Animal Tracking Project

There is a lot of life on the prairie, although sometimes it's hard to spot. Animals can camouflage themselves in a variety of ways. And we can spot them by sitting quietly, looking closely and listening or by looking for their tracks. All animals leave tracks; birds, insects, even snakes. Tracks tell you a lot about the animals that live on the prairie as well as in your neighborhood.

Here's a fun way to preserve an animal's tracks!

Here's what you'll need:

Long strip of cardboard

Paper clips

Plaster of Paris

Water

Bowl for mixing your ingredients

Spoon

Water based paint



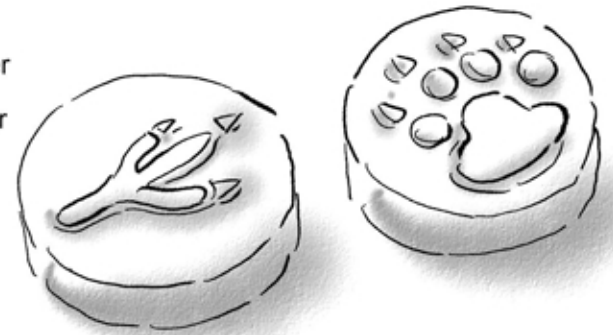
Step 1:
Find a muddy area where animals like to visit, maybe close to a stream. You can also make a muddy patch in your yard and bait it with some food.



Step 2:
Once you've found a clear track, make a collar of stiff cardboard to fit around it. Secure the ends with paper clips and push the collar into the mud around the track.



Step 3:
Mix the Plaster of Paris with water until it is pourable, but not too thin. Pour about an inch of plaster into the collar. Let it set before removing.



Step 4:
When you get the cast home let it harden completely. Then you can paint it.



And now that you know how to make a mold of a track, you can find more tracks to preserve!

The Prairie That Nature Built Bird Feeder Project

There are so many different birds that live on the prairie; bluebirds, chickadees, prairie chickens, red tailed hawks, burrowing owls and more.

What birds live in your neighborhood? Here's a fun (and messy!) project to make to discover the birds in your area.

Here's what you'll need:

Cardboard tube (an empty paper towel roll)

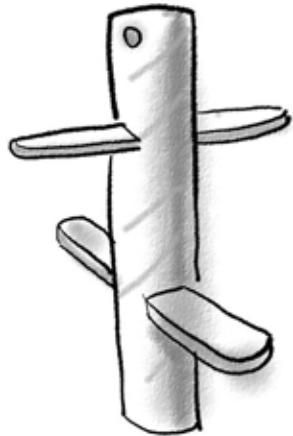
2 wooden craft sticks

Peanut butter

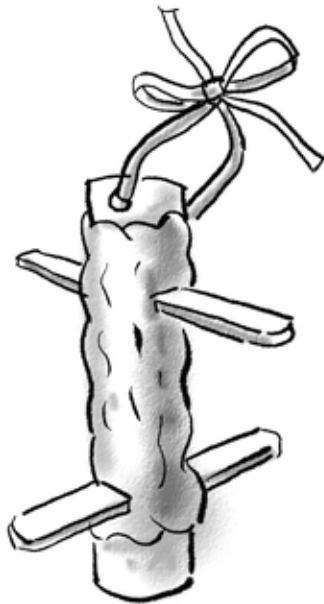
Bird seed

Plate for bird seed

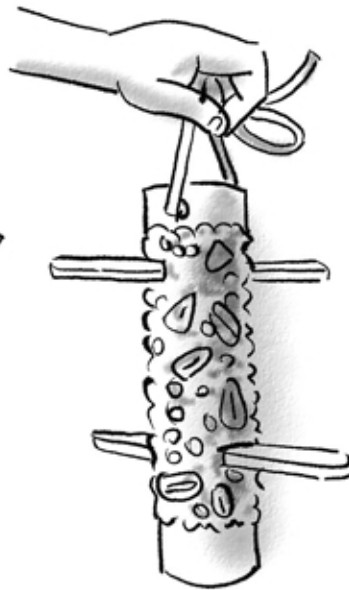
Heavy yarn, wire or ribbon



Step 1:
Cut slits in paper towel roll and insert craft sticks. Cut holes in the top for hanging your feeder.



Step 2:
Thread a thick yarn or ribbon through the holes at the top. The feeder can be heavy so make sure it can support its weight. Then use a kitchen knife to slather the tube with peanut butter.



Step 3:
Now comes the really messy part. With your seeds spread in a large plate, roll the tube in the seeds and pat them into the peanut butter to make them stick on your feeder.



Step 4:
Hang your feeder in a tree where you can watch your birds enjoy their meal!

The Prairie That Nature Built <http://www.dawnpub.com>

We see what life above ground on the prairie looks like. And there's an entire world underground as well. Use your imagination to draw what life below ground looks like. Then color everything. Have fun!



Worms & Dirt Cupcakes inspired by The Prairie That Nature Built



These are the critters
that worm and squirm
Alive in the dirt so dark and thick
Under the prairie that nature built.

YUCK!

They look like yucky worms in dirt but are really made of yummy chocolate, Oreo cookies and gummy worms!

YUM!

Ingredients:

- 1 box of chocolate cake mix
- 3 eggs
- 1/3 cup of vegetable oil
- 1 1/4 cups of water
- 1 package of gummy worms
- 1 box of instant pudding
- 1 cup of finely crushed Oreo cookies

These tasty little cupcakes are easy to make using a boxed cake mix prepared according to package directions.

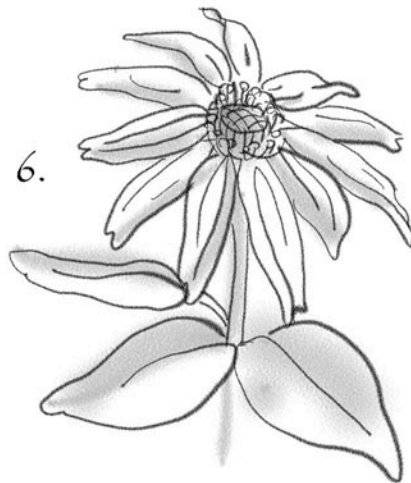
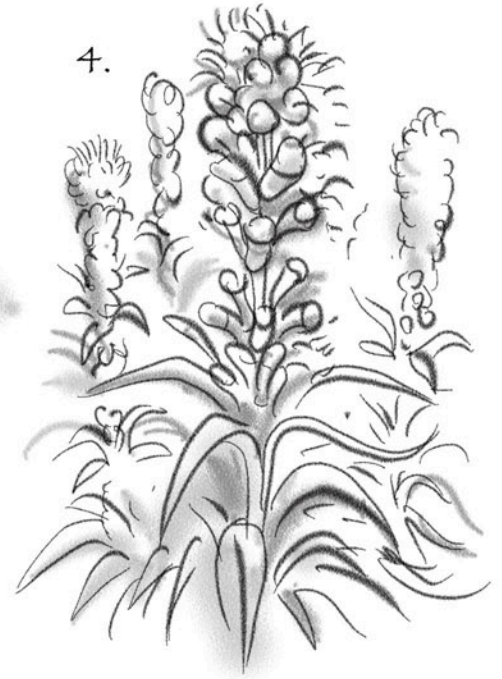
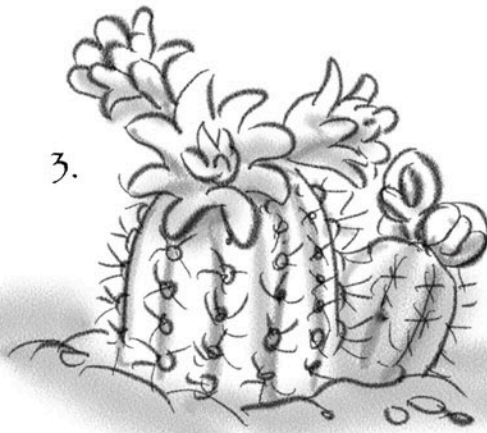
You can use frosting or replace that with a generous scoop of chocolate pudding sprinkled with crushed Oreos to look like dirt and mud.

Top the cupcakes off with a few gummy worms poking through and you've got very yummy cupcakes.



Prairie plants

1. prairie larkspur
2. butterfly milkweed
3. flowering cactus
4. blazing star
5. purple coneflower
6. black-eyed Susans
7. blanket flower
8. goldenrod

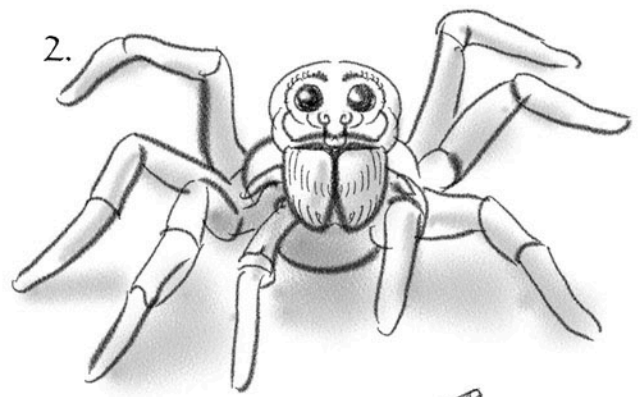


Prairie insects and arachnids

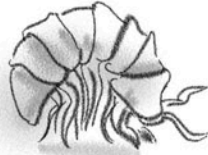
1. pill bugs



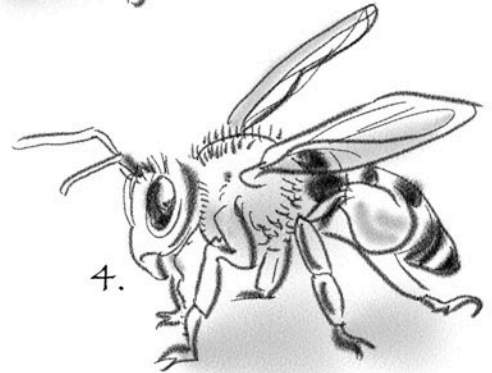
2. wolf spider



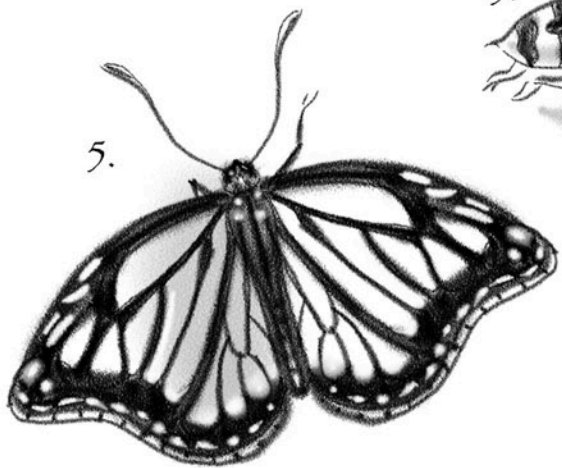
3. wasps



4. honey bee



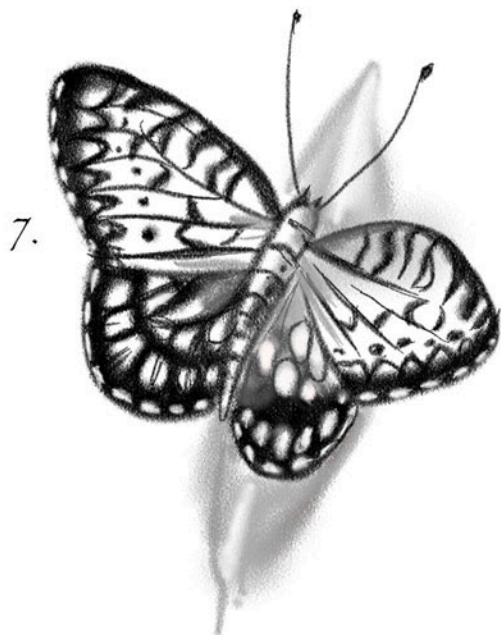
5. monarch butterfly



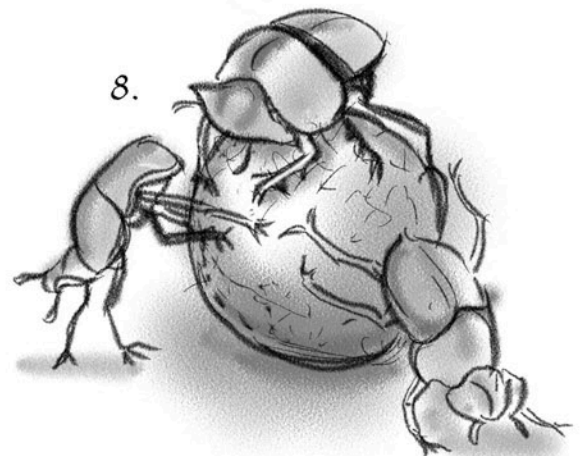
6. swallowtail butterfly



7. regal fritillary butterfly



8. dung beetle



3.

4.

5.

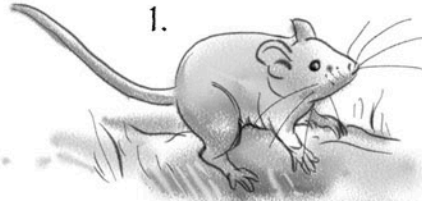
6.

7.

8.

Prairie mammals

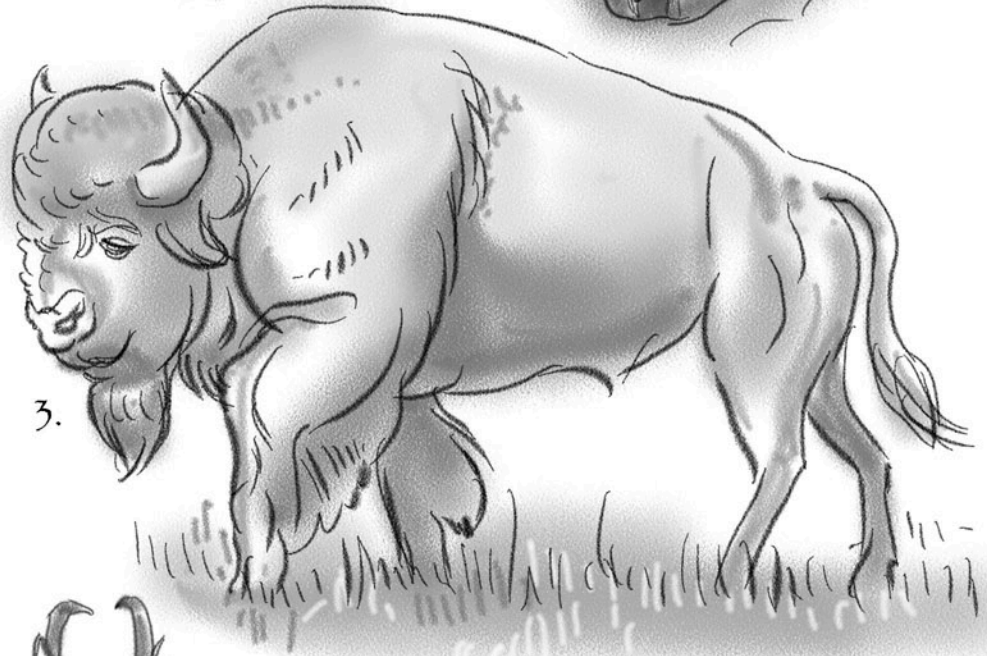
1. deer mouse



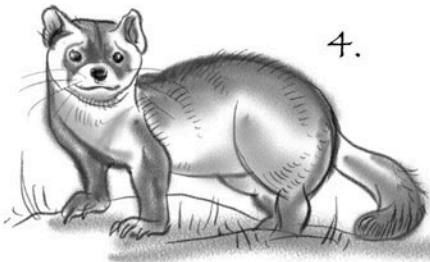
2. prairie dog



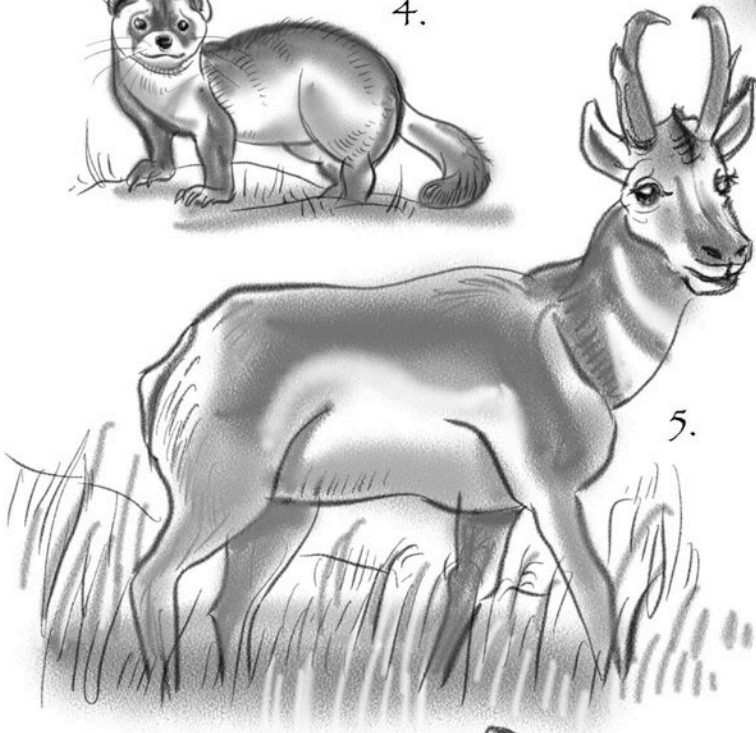
3. bison



4. ferret



5. pronghorn antelope



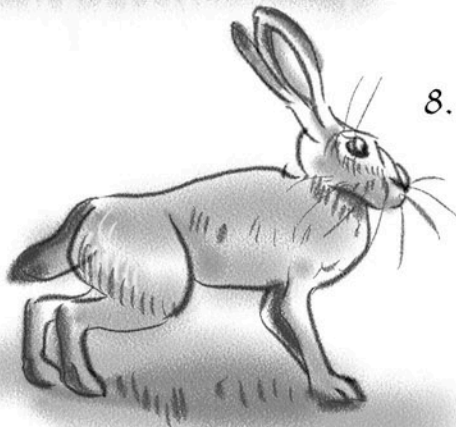
6. coyote



7. wolf

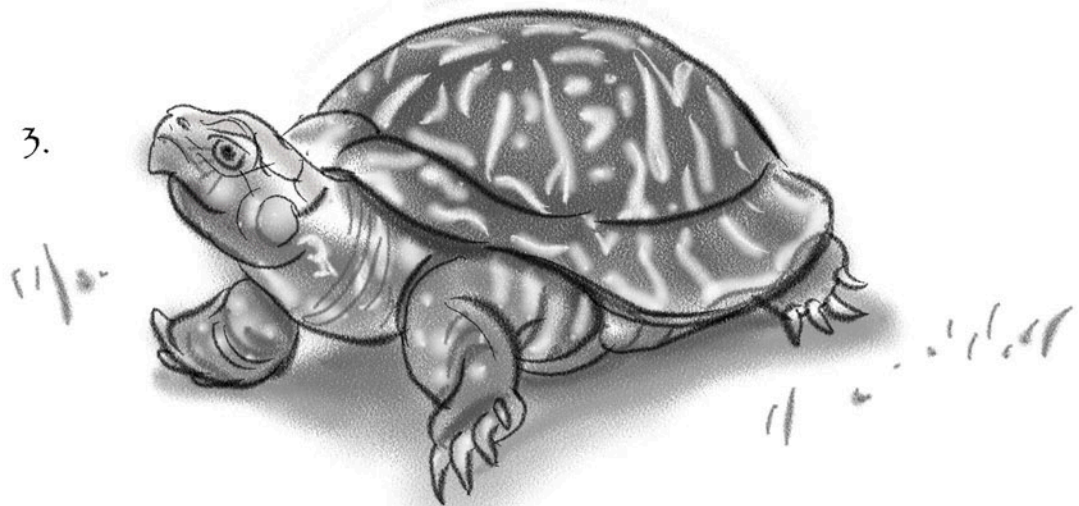
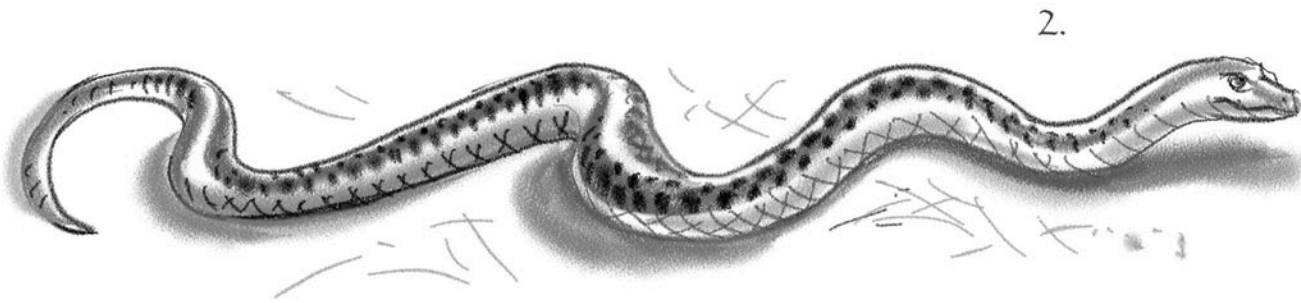
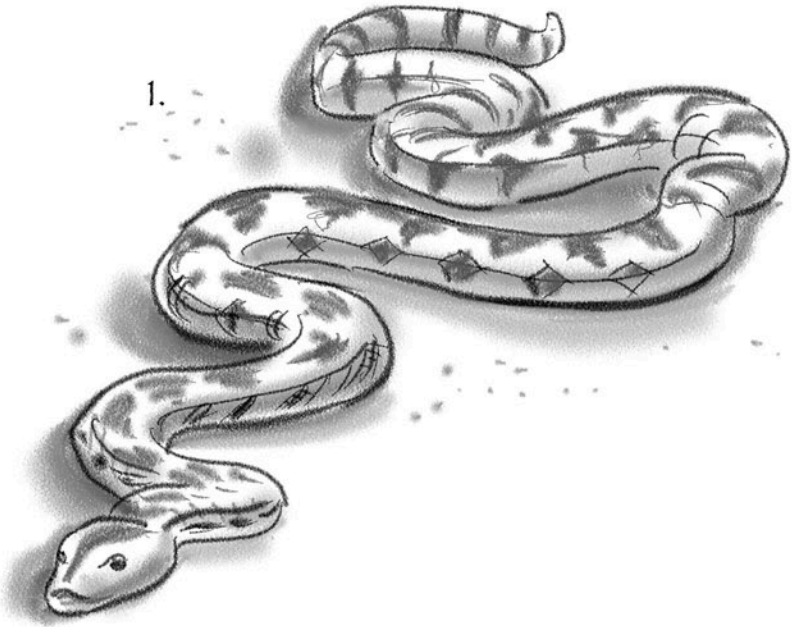


8. black-tailed jackrabbit



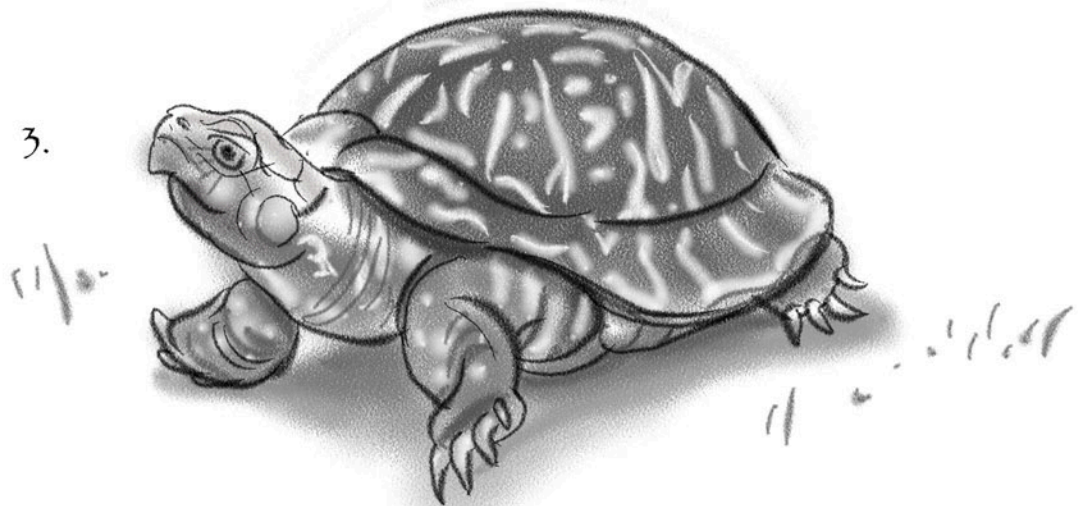
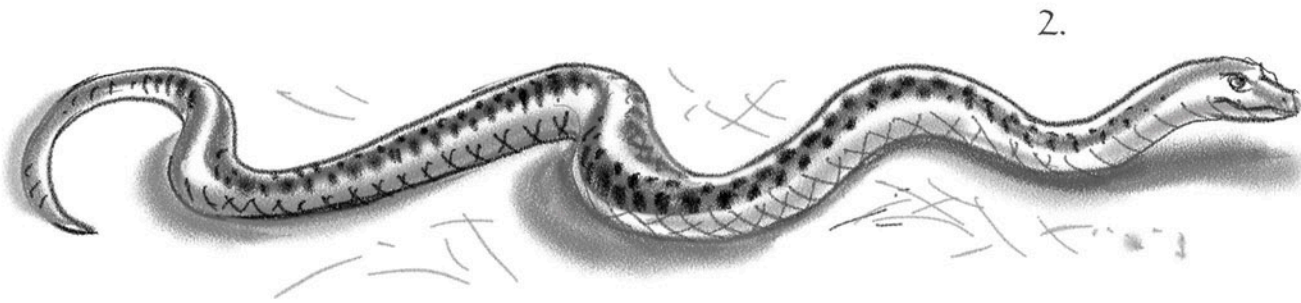
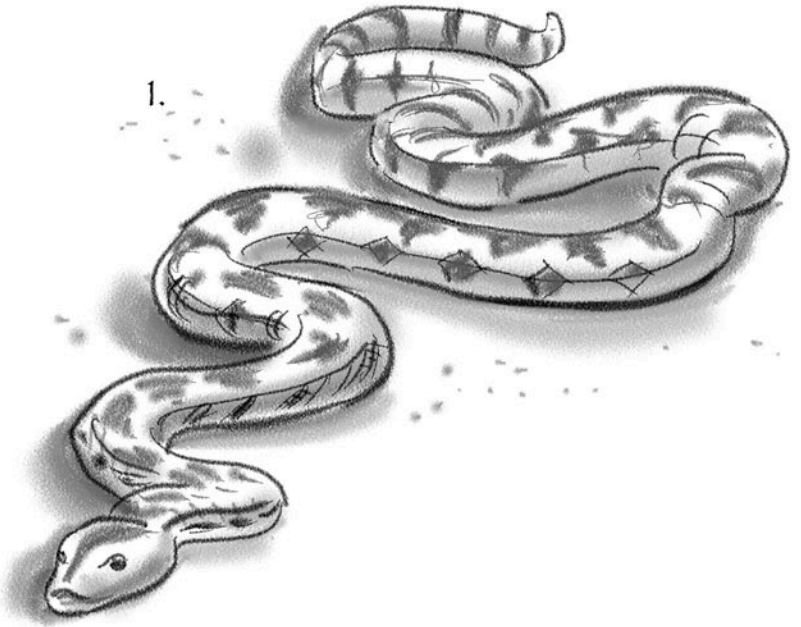
Prairie reptiles

1. bull snake
2. garter snake
3. ornate box turtle



Prairie reptiles

1. bull snake
2. garter snake
3. ornate box turtle



People on the Prairie



Introduction

In "The Prairie that Nature Built", the readers are introduced to a place where many different groups of people lived over different periods of time. They have changed the prairies and the prairies have changed them. The end of the book is a child talking about loving this prairie – this child could be a Native American or First Nations girl or boy, an immigrant sodbuster girl or boy, or a rancher's or farmer's child at the turn of the Century or the Dust Bowl.

Materials Needed

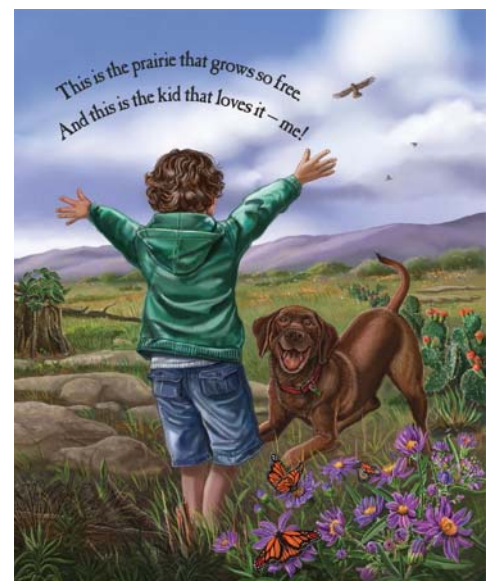
- ◆ A copy of the book
- ◆ A map of the United States or Canada with prairies in it.
- ◆ A national history book or historical resources

Key Concepts Common Core Standards (ELA 3-5)

- ◆ Writing: Text Types and Purposes 3.3, 3.7, 4.3, 4.7, 5.3, 5.7

Procedure

1. Read the book and talk about the different time periods of a prairie.
2. Set up four time zones in the classroom: 1800s to 1850s; 1850s to 1900 (including American Civil War); 1900 to 1930s; 1930s to 1940s, and let students choose a time zone or be assigned to one.
3. If students have ancestors who lived on the prairies in a time zone, have them choose to be a boy or girl in that family. Or they can be assigned a type of person from one of the categories so that there are all categories and time zones covered: Native American, Immigrant, Farmer or Rancher – dividing up. Each must then choose a specific nationality (specific tribe, country they came from, background.). (Make sure there are Native Americans in each time period to show they didn't go away and non-immigrant Hispanic Americans in what was once Mexico!)
4. As a class and as individuals, research the people's history of the prairie.
5. Have each student figure out some of the food that people got from the prairie and how.
6. Have each student write two daily logs about the things done in a day on the prairie – one in winter, one in summer – in that time period. Imagine what would school be like? Chores? Fun? Food? Clothing?
7. Have everyone dress up like their character, with a name tag and historical period. Have a history pageant going through the different times, with everyone telling a little about their days.



Who Am I and Where Do I Live?



Additional Resources

- ◆ You can read: *A Prairie Boy's Summer* and *A Prairie Boy's Winter* by William Kurelek *Prairie Day* by Laura Ingalls Wilder; *Renee Graef*; *Prairie School* by Lois Lenski; *Prairie School* by Avi, Bill Farnsworth; *The Star People: A Lakota Story* by S.D. Nelson and others.
- ◆ The Smithsonian's *Connor Prairie Interactive History Park* in Indiana has materials about a Lenape Indian Village (<http://www.connerprairie.org/Teachers/Classroom-Resources/Lenape-Camp.aspx>); an 1836 prairie town (*Who would you be?* <http://www.connerprairie.org/Plan-Your-Visit/1836-Prairietown/Who-Would-You-Be-in-Prairietown.aspx>), a Civil War interactive adventure -- : (<http://civilwar.connerprairie.org/>), a prairie homestead video and materials (<http://www.connerprairie.org/Teachers/Pre-Visit-Info-and-Forms/Orientation-Presentation.aspx>)
- ◆ Other grasslands Living History Centers: the Living History Farms in Iowa (<http://www.lhf.org/>); the Wessels farm in Nebraska: <http://www.livinghistoryfarm.org/>; The Eidem Homestead in Minnesota (<http://www.brooklynpark.org/city-government/recreation-and-parks/eidem-homestead/>) and Gibbs Museum of Pioneer and Dakota Life in St. Paul, MN (<http://www.rchs.com/gbbsfm2.htm>); a pioneer town in Arizona: <http://www.pioneeraz.org/>; El Rancho de Los Golondrinos in Santa Fe, NM: <http://www.golondrinas.org/>; McFarland Ranch in Galt, CA (<http://mcfarlandranch.org/education.htm>); in Doris Ranch in Willamette Valley, OR (<http://www.willamalane.org/pages/parks/dorris.shtml>)

Download a FREE



**Prairie That Nature Built
3D Pop-up App!**

**Watch the characters pop up and
move as you listen to the story
being read aloud! For iPad,
iPhone and Android devices.**

Prairie Plant Paradise



Introduction

In "The Prairie that Nature Built", the readers are introduced to the many plants and flowers and wildlife of a prairie. This is a chance to grow some.

Materials Needed

- ◆ A copy of the book
- ◆ Large paper cups
- ◆ Soil
- ◆ Prairie seeds from a native seed catalog (try to avoid seeds that need a germinator)
- ◆ Sunny window or grow light
- ◆ Sunny garden spot to plant the seedling later

Common Core Standards (ELA K-2)

- ◆ ELA Writing: Research to Build and Support Knowledge
k.7, 1.7, 2.7 3.7

Procedure

1. Choose some prairie seeds from a catalog or website such as sunflower, milkweed, butterfly, yellow or purple coneflower, or black-eyed Susans.
2. Match the photo of the plants of the seeds from the catalog or website with the flowers in the book so you know what you are planting.
3. Get large paper cup and put some pinprick holes in the bottom.
4. Fill with soil.
5. Place one or two seeds into the dirt.
6. Water but not until sopping. Put on plate to catch water
7. Place in sun. Keep soil moist but not soggy.
8. When the plant is as tall as the paper cup is deep, then it's time to transplant them to the garden. When you do, dig a hole taller than the cup. Be careful with the roots, stretching them out a bit to see their structure. Have someone dangle the plant over the hole while someone else gently place dirt around it to fill up the hole. Pat around it.
9. Watch the plants grow.
10. Watch to see if goldfinches come to the sunflowers and monarchs to the milkweeds and coneflowers.
11. Keep a journal with weekly sketches and measurements of the seedlings and plants.
12. Watch what insects and birds come to them.



Next Generation Science Standards (K-3)

- ◆ LS1.A: Structure and Function
- ◆ LS2.A: Interdependent Relationships in Ecosystems.

Additional Resources

- ◆ Sources for native prairie seeds: Prairie Nursery -- You can learn so much about prairies from their catalog and pick seed mixes that attract butterflies, or hummingbirds, or songbirds (<http://prairienursery.uberflip.com/i/101111>); Prairie Moon Nursery (<http://www.prairiemoon.com/seeds/>); Wildflower Farm (<http://www.wildflowerfarm.com/index.php?p=catalog&parent=27&pg=1&gclid=CKW1r7ubnLkCFepFMgodDiAAVA>)

- ◆ Get to know more about the monarch butterflies that come to your garden: <http://www.learner.org/jnorth/search/Monarch.html>; <http://www.learner.org/jnorth/search/MonarchNotes1.html#1>; <http://www.learner.org/jnorth/tm/monarch/indexCurrent.html>

Who Am I and Where Do I Live?



Introduction

In "The Prairie that Nature Built", the readers are introduced to the many different levels of activity in a prairie: under ground, in the grasses, on top of the grasses, in the sky. They were introduced to micro-organisms; small insects, worms, spiders, and other small creatures; then animals, birds, and reptiles that tunnel or live in tunnels and burrows; then small animals, insects, and birds that live in the grasses; grazers that tromp upon and eat the grasses; predators that eat the animals; and finally those insects and birds that fly.

Materials Needed

- ◆ A Copy of the Book
- ◆ Roll of Newsprint Paper and art supplies
- ◆ Index cards and pen
- ◆ Optional: Field Guides for Birds, Insects, Reptiles, etc.

Common Core Standards (ELA K-2)

- ◆ ELA Writing: Research to Build and Support Knowledge K.7, 1.7, 2.7 3.7

Procedure

1. Read the book and talk about the different levels of a prairie.
2. Make a mural together of a prairie with sky, tall grasses, ground, deep roots in the soil.
3. On index cards, work together to write down the names of creatures living in each level of the prairie, as many as you can see in the illustrations or find in the text.
4. Put the cards on the floor upside down in piles according to where they live. Have each students choose one card, dividing up the class so that an equal amount of students pick from each pile.
5. Have them pin the creature's name on their back and then draw a picture (or cut it out of construction paper) of the creature and its home, trying to make it somewhat proportional to the prairie mural.
6. Have each student research their creatures.
7. Have each person cut out and then pin, tape, or glue their creature and its home to the right place on the mural and tell what he or she learned, and why that creature lives where it does.
8. After a set of drawings have been posted, have each child put a hand on the shoulder of another student creature or a plant on the mural that he or she would have eaten. This will form classroom chains of connection. This could be done outdoors, as a form of freeze tag. Each time a whistle is blown, the creatures run to put a hand on a new creature they would have eaten. For those who eat plants, they have to find a new plant outside they could grab to say they'd eat. When the whistle blows again, they all freeze.
9. Since there are so many creatures in a prairie, students could each get a new one each day from a different level until each child has had one creature from each level and the mural is overflowing with life and homes.



Who Am I and Where Do I Live?



Next Generation Science Standards (K-3)

- ◆ LS1.A: Structure and Function
- ◆ LS1.B: Growth and Development of Organisms
- ◆ LS2.A: Interdependent Relationships in Ecosystems.

Additional Resources

- ◆ You can get a sense of the prairie heights and roots for your mural from the image of a prairie from Minnesota Department of Natural Resources site: <http://www.dnr.state.mn.us/biomes/prairie.html>
- ◆ For older students, you can play some games described by the Texas Department of Parks and Wildlife: http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_lf_w7000_0033.pdf . You can also play the 20 Questions Prairie Species Identification Game from the Illinois State Museum: http://www.museum.state.il.us/muslink/pdfs/pr_class.pdf
- ◆ Do a prairie scavenger hunt. Go in teams and find these items:
Feather, flower, saw-toothed leaf, grass seed head, something blue, something yellow, something brown, something black, something purple.
- ◆ Visit a prairie and sketch, paint, or describe on paper a favorite species or view of the prairie. Find the species in a field guide. Write a poem about a species.
- ◆ For students who are fourth grade and above and can get different plants from a prairie, you can try dying cloth from dyes made from specific prairie plants in this activity from the Illinois State Museum: http://www.museum.state.il.us/muslink/pdfs/dye_plants.pdf
- ◆ Do a sound inventory. Go to a prairie and sit for fifteen minutes without talking (close your eyes while you're listening) and write down all the different sounds you hear and try to describe them.
- ◆ Walk through a prairie and find ten different smells that you can list and tell what they smelled like and where you smelled them.
You can smell the earth, different flowers and leaves flower, a marsh, etc. Experiment with smelling with your eyes open and eyes closed.
After you've collected things to smell, can you shut your eyes and have some one hold things to your nose and see if you can remember what some of them are?

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