

Wild about Prairies

Interest Project Patch

For Cadette, Senior and Ambassador Girl Scouts



To complete this Interest Project Patch, Cadette, Senior, and Ambassador Girl Scouts must complete:

- Two activities from the Skill Builders section
- One activity from the Technology section
- One activity from the Service Project section
- One activity from the Careers section
- Two additional activities from any sections

Wild about Prairies Interest Project Patch

Skill Builders

1) Prairie Ecology

Learn about prairie habitats. Find out what type of plants and animals live in prairies, and what they need to survive, including nonliving factors such as soil, water, and climate; requirements for plants; and food and shelter requirements for animals.

2) Prairie Plants

Visit a prairie at least two times, with a month or more between visits or during two different seasons. **Or** look at pictures of a prairie taken in two separate seasons. Observe differences in the plants. Find out what makes the plants unique to prairies. Learn about their special adaptations or characteristics they have that help them survive in their climates and what happens to them during the winter months?

3) Plant Identification

Although prairies are made up primarily of flowers and grasses, they have more species diversity than almost any other ecosystem. A single prairie may contain over 100 species of plants. With the help of field guides, plant mounts, the Internet, or a plant expert, identify at least 7 different species of prairie plants.

4) Management and Restoration Techniques

Government agencies, businesses and private citizens have devoted much time to managing and restoring prairies in the last 50 years. Learn about the process of restoring or managing a prairie including soil preparation, seed planting, plant propagation and fire management. Find out how long it would take to establish a new prairie and what must be done to maintain it.

5) Prairie History and Culture

Prairies played important roles in the lives of the pioneers who settled the Midwest in the 1800s. Find out about someone who lived on the prairie during this time by reading an autobiography or biography. Compare their life to yours. Make a list of ways their lives were similar and different to yours. Include things like what they ate, how they entertained themselves, and what kind of chores or daily responsibilities they had. How did the prairie influence their lives?

Technology

1) **Mounting Plants**

Botanists often use pressed, dried plants that have been mounted on cardboard to aid in prairie plant identification and research. Make at least 3 plant mounts of your own. (See the Prairies booklet for specific instructions.)

2) **Common Uses**

Prairie plants were very important to Native Americans and pioneers who lived on them. Many of the plants were edible or had medicinal uses. Find out which plants are edible or are used as herbal or medicinal treatments today.

3) **Seed Processing**

Learn about the technology and tools used in processing prairie seeds and propagating prairie plants. Read about, observe or help use a seed processing mill. Find out what must happen to the milled seeds to get them to grow.

4) **Fire Management**

Fire is essential for managing a prairie. Find out about the equipment used for a prairie burn. Learn about safety precautions, techniques and weather requirements for successful prairie burns. What training or permits are required to burn in your area.

5) **Habitat Loss**

Most of the original prairies in the U.S. have been lost due to urban development, agriculture and other human activity. This loss of prairie habitat has caused a decline in the population of many species of plants and animals, causing them to become threatened, endangered, or even extinct. Find out which species have been affected and what is being done to protect these threatened or endangered plants and animals.

6) **Native American and Pioneer Crafts**

Technology was much less advanced during the 1800's. Native Americans and pioneers who lived on the prairie had to make most of the things they needed to survive. Make a prairie pioneer or Native American craft such as something used in the home or a child's toy. Or cook something the prairie pioneers would have eaten. You can find Native American or pioneer crafts and recipes in books or on the Internet. See the "Booklet" for some ideas. **OR** Select an item made by someone who lived on a prairie in the 1800's and follow the development of that item into the 21st century. Share what you discover with others.

Service Projects

- 1) **Seed Collecting**
Help with a prairie restoration by participating in seed collecting or planting. (See booklet for suggested organizations sponsoring restoration activities.)
- 2) **Plant Propagation**
Help with a prairie restoration by propagating prairie plants. Obtain seeds and directions on the steps taken before planting. Plant the seeds and care for the plants until they are big enough to be planted in a prairie.
- 3) **Wildlife Conservation**
Participate in a prairie wildlife conservation project such as: building, installing, and/or maintaining bird houses, bird feeders, butterfly boxes or bat houses in a prairie or oak savannah. Or participate in an animal identification project such as a bird count, bird banding, or butterfly monitoring.
- 4) **Educate Others**
Inform others about the importance of prairie habitat and things people can do to protect prairies and prairie wildlife. Create a poster, pamphlet, or newsletter to display your information. Or produce a play or poetry reading.
- 5) **Lead Craft Activities**
Teach others to make the Native American or pioneer craft, toy or food you learned in the technology section. Provide information on how the item was used by the people who made it.

Careers

- 1) **Visit a Nursery**
Visit a prairie nursery where seeds and plants are processed and sold. Find out if it is a “for profit” or “non-profit” business. Who are its major clients? What is the nature of the business? (Do they just sell seeds and plants, or do they provide other services such as restoration consulting or actual restoration work such as planting and burning.) How much do their services or products cost?
- 2) **Interview a Restoration Ecologist**

Contact a restoration ecologist or prairie biologist to find out about her/his job. What does a typical day entail? Do their duties change with the seasons? What kind of schooling and experience is required to hold their position? Is there room for advancement in their field and what salary ranges might be expected with these types of jobs.

3) Prairie Art

Prairies are valuable not only for their plant and animal resources but also for their esthetic value. They contain beautiful flowers and brightly colored birds and insects. Prairies are often the subject of paintings, poetry, and pottery. Prairie plants are also used to make many types of artwork from weavings and wall hangings to fabric dyes. Create your own work of art using prairie plants as either the subject of the art project or the medium to create a work of art.

4) Visit a Museum

Visit a museum that has artifacts and displays of people who lived on prairies in the midwest in the 1800's. Find out how the museum obtained the artifacts and how the displays are created. Ask about the education and experience needed to work at the museum in different jobs related to the displays.

To order badges and patches from Badgerland Council Contact the Madison Girl Scout Center Trefoil Shop at 608.237.1173.



Girl Scouts of Wisconsin – Badgerland Council
Wild About Prairies
Interest Project Award Booklet

The following information and activities are designed to help Girl Scout Cadette, Senior and Ambassadors complete the requirements for Badgerland Council's **Wild About Prairies** Interest Project Award. Each section corresponds to the I.P.A. requirements.

To visit a prairie or help with seed collecting and other service projects, contact the following organizations or call your local DNR for locations near you!

Girl Scouts of Wisconsin – Badgerland Council has prairies at Camp Stetler in Richland Center and Echo Valley Farm near Mt. Horeb.

Dane County Parks has prairie locations all over Dane County. Contact Wayne Pauly at 608-224-3603

U.S. Fish and Wildlife has prairies in Iowa County. Contact Kurt Waterstradt at 608-221-1206, ext. 16 or kurt_waterstradt@fws.gov

Governor Nelson State Park is located in Waunakee. Contact the Park Superintendent at 608-831-3005.

City of Middleton Parks Department has many prairies. Contact Penni Klein, Public Lands Manager at 608-827-1044.

The Nature Conservancy has land all over our council, especially in the Baraboo area. Contact Katie King for the prairie closest to you. 608-251-8140.

The Ice Age Trail has prairie locations in several parts of Black Hawk Council. Contact Don Ferber at 608-222-9376 for specific locations.

The UW-Madison Arboretum is located in Madison. Call 608-263-7888 for more information or to set up a visit.

Skill Builders

Prairie Ecology and Prairie Plants: The easiest way to find this information is to search the internet under prairie ecology, prairie plant, or prairie plants and animals. However, the easiest way to complete these two requirements along with most of the I.P.P. in one sitting is to contact one of the organizations listed on the front page and meet with one of their staff who works with prairies. You might be able to accomplish the same via email, but it will take far more time on the staff member's part. You might want to suggest both options to the staff member and let them choose which they prefer.

Plant Identification: There are several good identification books you can use. Try your local library. It will probably be easier to have someone who knows prairie plants teach you to identify 7 plants than to try to use field guides. But field guides do work too.

Management and Restoration Techniques: This can be found via internet, library or direct discussion with someone who manages prairies. See front page for contacts.

Prairie History and Culture: Try your local library, book store, or the internet for options.

Technology

Mounting Plants: Collect samples of the plants. Because many prairie plants are very tall, just collect the upper part. Be sure to have flowers, stems and leaves on your samples. Purchase large sheets of paper around 18 x 24 inches. (Large drawing tablet paper works well.) Cut 2 pieces of heavy corrugated cardboard at least as big as the paper. Place a sheet of paper on each piece of cardboard. Place the plants flat between the 2 sheets of paper sandwiched between the cardboard. Press placing heavy books on top of the entire sheet of cardboard. Press them for several days. If the plants or flower heads are particularly thick or moist, change the paper in the press each day until the plant is flat and dry. Glue the dried plants to pieces of posterboard and write the plant names on the boards. (Scientists usually write the plant's common name, Latin name and location of plant collection next to the plant in one of the corners.) The process of creating mounted pictures will help you remember the plant names and any identifiable characteristics of the plants. You may want to mount all 7 prairie plants you identify in the "Skill Builders" section to help you remember their names and characteristics. Although plants can be collected and mounted at any time, to aid in identification, it is best to pick the plant when the flowers are blooming. You may wish to collect the dried flower heads or seeds to add to the mount later in the season. This will help you identify the plants by their seeds, as well as by flowers and leaves.

Common Uses: This might be best answered with an internet search or book about prairie plants. but a prairie ecologist might be able to answer this for you.

Seed Processing: An internet search or prairie book could help you here too but getting to see a hammer mill in action can be a lot of fun. They are relatively easy to operate so you might even be allowed to help instead of just watching. Seeds are processed in the fall often in Late October, November, or into December. It will be difficult to find this process happening in other months. The following contacts would probably be willing to show you or let you help with seed cleaning:

Penni Klein, Public Lands Manager for the City of Middleton Parks Department at

608-827-1044.

Wayne Pauly, Naturalist for Dane County Parks at 608-224-3603

Kurt Waterstradt, Wildlife Biologist with the U.S. Fish and Wildlife department
at 608-221-1206 ext. 16 or kurt_waterstradt@fws.gov

Seed nurseries will also process seeds with seed mills. A few are listed below. To find more, contact the Wisconsin Prairie Enthusiasts. You can email them directly from their website at www.theprairieenthusiasts.org.

Wisconsin Prairie Enthusiasts
John R. Mecikalski
johnm@ssec.wis
(608)849-8358
Dane County

Agrecol
1984 Berlin Road
Sun Prairie, WI 53590
608-897-8547
Contact: Steve Banovetz

Little Valley Farm
Route 3, Box 544
Snead Creek Road
Spring Green, WI 53588
608-935-3324
Contact: Barbara Glass

*Christi Bickford
Taylor Creek Restoration
17921 Smith Road
Brodhead, WI 53520
608-897-8641 Ext. 33
www.appliedeco.com*

Bluestem Farm
S5920 Lehman Road
Baraboo, WI 53913
608-356-0179
Contact: Martha Barrett

Nature's Nursery
6125 Mathewson Road
Mazomanie, WI 53560
608-795-4920
Contact: Melody Moore

Prairie Ridge Nursery
CRM Ecosystems, Inc
RR 2, 9738 Overland Road
Mt. Horeb, WI 53572
608-437-5245
Contact: Joyce Powers

Fire Management: Fire is another topic that is far more exciting if you see it in person. Although it is not likely you will be allowed to assist in a burn, you could probably arrange to observe from a safe distance. Burns are held in both fall and spring and sometimes in the winter too. March and April are the heaviest spring burn months. October and November are the busiest fall burn months. Here is some general burn information. To find out more or to observe or possibly assist with a burn, contact the appropriate people listed for these organizations: Girl Scouts of Black Hawk Council, Dane County Parks, The Nature Conservancy, The UW-Madison Arboretum, or City of Middleton Parks Department. (See first page of booklet.)

Fire is the one tool that is responsible for maintaining prairies. Without fire, prairies become forests or weed patches. Prairie plant roots are very deep. Trees and weeds have very shallow roots that are just below the earth's surface. When fire comes through a prairie, it burns everything above ground. Most trees die because they cannot survive if their tops are burned. The tops of prairie plants are only alive in the spring and summer. Then they die so fire does not hurt the already dead tops. The fire creates enough heat that everything a few inches below ground is also killed. So if the trees don't die when their tops are burned, they definitely die when their roots are burned. Weeds also die because their roots are burned as well. Prairie plants survive because their roots are deeper underground so they are protected. The ash created from burning the tops of the plants creates nutrients for the soil, helping the new prairie growth in the spring. So fire acts as nature's weed killer.

It occurs naturally mostly through lightning strikes. In the 1800's it was common for hundreds or even thousands of acres of prairie to burn at one time. Once people settled the prairies more densely, they suppressed prairie fires to keep them from burning up homes and property. (People also didn't realize fire was good for the prairie, so they put out the fires thinking they were helping the prairie.)

People now purposely set prairie fires, carefully managing the fire with tools to keep it from spreading beyond the part they want burned. Obviously, if it gets away, fire may destroy property and lives, so it must be used extremely carefully. Weather conditions must be just right to make the fire burn safely, but effectively. The prairie is burned in a specific order depending on weather conditions, slope of the land and type of plants and trees in or near the prairie borders. Many factors affect the fire. For more information on prairie burn techniques and strategy, contact Juli Speck at the Girl Scout Center or one of the other organizations listed above.

Habitat Loss: The internet or books about prairie plants and animals or endangered species are your best option here. Try searching the Wisconsin DNR's website for endangered species.

Native American and Pioneer Crafts: Visiting a library or searching the internet should produce several options. You can make simple toys that children played with such as buzz saws, barrel hoops and rag dolls. Try playing some common games that children played such as marbles or tangrams or make simple crafts such as dipped candles or woven baskets. Directions for a few of these ideas are listed below.

Corn Husk or Rag Dolls

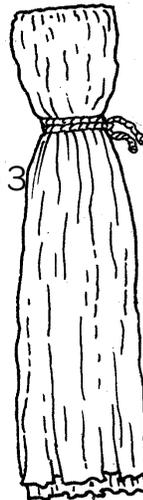
STEP 1: Trim A LITTLE of the pointed edges off the husks so they are more even.

STEP 2: Form the doll's head by taking a large piece of husk and folding it in half. Place a stone about 1 inch in diameter under the fold. Tie a piece of string around the husk just below the stone to create a head shape. The ends of the husk should extend several inches below the neck.

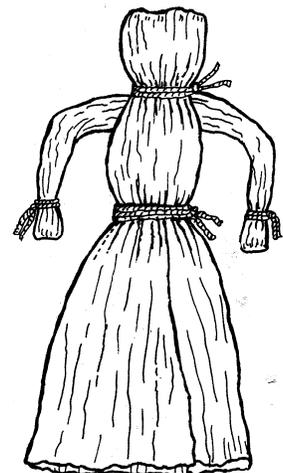
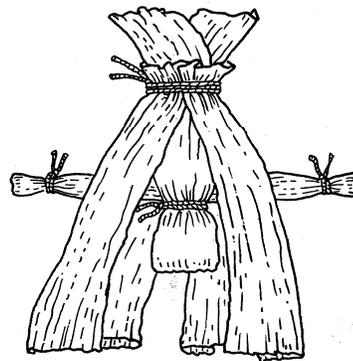
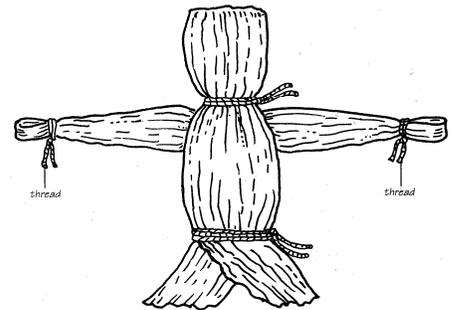
STEP 3: For the arms, cut a husk about 7 inches square and roll it up. Tie it at each end to form wrists. Slide the "arms" between the two husks, below the figure's head so they stick out evenly on both sides of the body. Tie another string below the arms to form the waist.

STEP 4: To form the skirt, place 3 or 4 husks around the doll's waist, but point them up, so they extend above the doll's head. Tie the husks around the waist, then fold them down over the tied string to create the skirt.

Step 2



Step 3



Dolls usually did not have faces. Many girls sewed bits of corn silk or yarn for hair and added a corn husk bonnet that also had to be sewn. Glue was not readily available in the 1800's but it certainly makes it easier for 21st century replicas. Rag dolls can be made using the same pattern. Fabric scraps can be obtained from someone who sews, or possibly donated by a fabric store. Hair can be added to the rag dolls using yarn. Clothing can also be added over the dolls body. Rag dolls were common among prairie children, especially since girls learned valuable sewing skills while making them.

Dipped Candles

Candles were probably the most common source of artificial light on the prairie in the 1800's. They were made to be used rather than for decoration. Children often helped make the family's candles by hand-dipping them. Candles were often made of bee's wax or tallow (animal fat).

*Adult supervision is strongly recommended for this activity. Using a double boiler, melt wax in a can or pot about 8 inches tall. **Never place a pot of wax directly on a burner or heat source. ALWAYS use a double boiler! Cut a wick for your candle about 6-8 inches long. Once the wax is melted, place the can on a table along side a can of very cold water. To make the candle, alternate dipping the wick in the wax, then the water. For the first several times, the wick will need to be straightened after it comes out of the water. Eventually, as wax builds up on the wick, the candle will stay straight. Keep dipping until the candle is about $\frac{3}{4}$ inch thick or the width of your thumb. Your candle can be placed in a lantern, candle holder or atop an empty bottle.

Tips: There are a few key things to making the candle work.

- 1) Take time to let the candle cool in the water between dips in the wax. If you don't let it cool long enough, when it starts to get thick, the candle bends or the wax pulls right off the wick. If it bends, roll it on the table to straighten it out then let it sit in the cold water for a few minutes before resuming the process.
- 2) Make sure to wipe all the water off the candle before dunking it back in the wax pot. Water droplets cause bubbles.
- 3) The more times you dunk the candle, the thicker it gets. Contrary to popular belief, holding the candle in the wax container DOES NOT make it thicker. It only serves to melt the wax off the wick. Dip it quickly in the wax then slowly in the water, then allow a short time to cool before going back into the wax.
- 4) If the wax starts to get a "skin" on top or solidify on the edges of the container, heat it back up again before continuing or it will collect too quickly and cause the candle to become lumpy. If this happens, roll the candle on the table to smooth out the lumps then let it sit in the cold water for a few minutes.
- 5) Periodically you will need to cut excess wax off the bottom of the candle to keep it from building up. Take a butter knife and slice the bottom $\frac{1}{2}$ inch or so off the candle then pinch it or roll it on the table to make it "look nice" before continuing.

- 6) This actually works well with a group of 10 – 20 people. Place one can of wax and one bucket of ice water on a table. Have all participants make a single file line next to the can. Once they dip their wick, they walk around the table and go to the back of the line. By the time it is their turn to dip their wick again, their candle has cooled enough. Just keep walking in a circle and dipping until the candle is about $\frac{3}{4}$ inch thick.

Prairie Pioneer Foods

Here's some general information about prairie pioneer food you may not realize:

There were no large grocery stores in the 1800's. They didn't even have refrigerators. They did not have good ways of preserving food. What little food was sold at stores could be bought in the General Store. Most of the food was grown, raised or made at home and could only be kept for a short period of time before spoiling. Fruits and vegetables were grown in gardens and almost every family had one. Women "canned" to preserve them so they could be eaten during the rest of the year. Whole pickles were commonly sold at the general store and were one of the favorite treats at fairs.

Since there were no plastic bags or Tupperware to keep the bread fresh, women often made it every day. A favorite on fresh bread was homemade apple butter or Jam. Applebutter is easy to make. You may be able to find a recipe and make some.

Since there was no refrigeration, meat was hard to keep. The only way to have meat through out the year was to salt it heavily, then smoke it. Wild game such as deer, bear, and rabbit were more commonly eaten than domestic cows. Jerked meat was common because it was easy to pack for a lunch or snack and wouldn't spoil quickly since it was dried and salted.

Dutch ovens were common for baking. They were often used over an open fire in a home fireplace. Fruit pies were common desserts along with Molasses, ginger, and oatmeal cookies. Chocolate chip cookies didn't come around until later! Dutch ovens are available for check out at the Black Hawk Council Office. Recipe books can be found in the council library, your local library, or on the internet.

Service Projects

1) Seed Collecting: Contact any of the organizations listed on the front page of this booklet. They will be thrilled to have you help collect seeds. Seed collecting is done in the fall from as early as July or August with the majority being done in October and November.

2) Plant Propagation: This process is not as common and most who do it don't have volunteer help. Your best bet for this might be to contact a prairie plant nursery since they sell a lot of plants. Here are a few in our area. Check the Wisconsin Prairie Enthusiasts' website at www.theprairieenthusiasts.org for others.

Wisconsin Prairie Enthusiasts
John R. Mecikalski
johnm@ssec.wis
(608)849-8358
Dane County

Agrecol
1984 Berlin Road
Sun Prairie, WI 53590
608-897-8547
Contact: Steve Banovetz

Little Valley Farm
Route 3, Box 544
Snead Creek Road
Spring Green, WI 53588
608-935-3324
Contact: Barbara Glass

Bluestem Farm
S5920 Lehman Road
Baraboo, WI 53913
608-356-0179
Contact: Martha Barrett

Nature's Nursery
6125 Mathewson Road
Mazomanie, WI 53560
608-795-4920
Contact: Melody Moore

Prairie Ridge Nursery
CRM Ecosystems, Inc
RR 2, 9738 Overland Road
Mt. Horeb, WI 53572
608-437-5245
Contact: Joyce Powers

3) Wildlife Conservation: Contact any of the organizations listed on the front page or local parks in your area. Most will welcome your projects.

4) Educate Others: Be creative. Local libraries, State parks or schools are a great place to display posters or leave pamphlets. Use the internet or your local library to find the information to create your display. Other Girl Scout troops or elementary schools may be receptive to a play or other dramatic performance.

5) Lead Craft Activities: Use the craft information listed in the Technology section or the internet or library to find ideas. Girl Scout troops, parks, after school child care programs or nursing homes are often receptive to these activities.

Careers

1) Visit a Nursery: See the nurseries listed in the "Service Project section on the previous page or look for other nurseries near you.

2) Interview a Restoration Ecologist: Contact any of the organizations listed on the front page or try a professor at a local college or university. You can do an interview in person, or on the internet via email or an online chat. You may leave the choice up to the person you are interviewing. In any case, write out your questions ahead of time. You can always ask additional questions during the interview, but it is good to write things down so you do not forget and are prepared. When interviewing someone about their job, it is okay to ask about salary ranges for "this type of job", but it is inappropriate to ask how much money the person you are interviewing makes. They may offer this information, but you should not ask them directly.

3) Prairie Art: There are many different options. Try to visit a prairie for inspiration. You could try paints, pencil, charcoal, pen and ink, colored pencil, pastels, or crayons or any combination. You could use prairie plants and flowers in a relief print or dry them for a flower arrangement. Use plants and flowers in a wall hanging or weaving or to decorate a piece of pottery. Use prairie grasses to weave a basket or placemat. Incorporate them in jewelry or clothing. Many prairie plants and flowers can be used as dyes. If visual arts aren't your thing, write a poem or short story inspired by prairies. Create an interpretive dance about how prairies make you feel. The options are endless. Use the internet or library to help you with ideas.

4) Visit a Museum: See number 2, Interview a Restoration Ecologist for directions.