

Prairie EcoArt



Art + Environmental Science Curriculum for Grades 3–8



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About the Curriculum

This material is part of the Great Plains, Great Brains afterschool curriculum supported by Beyond School Bells and developed by the Great Plains Art Museum with its parent organization, the Center for Great Plains Studies. This informal curriculum was developed for afterschool or summer learning and is founded on **place-based, eco-art education**, an approach to integrate art education with environmental education. The overall goal of this curriculum is to foster a wonder of and appreciation for the Great Plains through nature-based art activities.

The **Prairie EcoArt** curriculum focuses on:

- Nature-based art activities
- Artwork of the Great Plains
- The importance of connecting with the Great Plains and sharing your visual representation of it with others

The activities in this curriculum include:

- Painting, drawing, embroidery, and dried bean art
- Going outside and collecting nature specimens for inspiration
- Starting off with an introduction to a featured artwork in the Great Plains Art Museum's collection to learn more about the inspiration for the art activity

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Facilitator Notes:

- The best time of year to teach these art activities is during the spring through the fall while nature is active and blooming.
- Encourage students that their work can be abstract and interpretative. For example, a drawing of a leaf does not have to look scientifically accurate in proportion, color, or detail.
- These art activities are designed to be flexible. You can run them in an 8-week club, or integrate an activity to fill time for other similarly themed clubs.
- Recommendations for a club leader:
 - ◊ These lessons will cover concepts of art and environmental science, therefore having someone with a background/interest in either (or both!) of these fields is recommended.

Overview of Art Activities (in no particular order):

Activity 1 - Shadow Plant Paintings (1 - 1.5 hrs)

Activity 2 - Dried Bean Nature Art (1 - 1.5 hrs)

Activity 3 - Embroidered Prairie Art (1 - 2 hrs)

Activity 4 - Microscope Nature Diptych Art (1 - 1.5 hrs)

- Things to anticipate for each activity:
 - ◊ Each art activity is inspired by an artwork in the Great Plains Art Museum's collection. Consider taking 5-10 minutes before starting the activity to study the artwork together. You can use the **See / Think / Wonder** routine for exploring works of art and strengthening observation skills. Start off by displaying the artwork or handing out copies to students. Next, pose the following three questions to students in order, giving them time to reflect after each:
 - What do you **see**? What details stand out?
 - What do you **think** is going on? What makes you say that?
 - Answer: I **wonder** why....
 - ◊ You can access the digital version of the artwork by clicking on the artwork image in each activity guide. This will bring you to the Museum's online collection where you can zoom in on the artwork.
 - ◊ Each art activity is inspired by nature. Consider taking students outside to gather nature specimens or observe nature before beginning the activity.
 - ◊ Some art activities may benefit from bringing in volunteers that are familiar with embroidery or painting.
 - ◊ If students find it difficult to come up with something to draw in the dried bean nature art activity or embroidery activity, print off simple nature templates for them to trace (e.g., leaf, butterfly, flower).

Resources:

- Possible Partners:
 - ◇ [Master Gardeners](#)
 - ◇ [Master Naturalists](#)
 - ◇ [Nebraska Extension](#)
 - ◇ [Nebraska Statewide Arboretum](#)
 - ◇ [Nebraska Game & Parks Commission](#)
 - ◇ [Nebraska Natural Resource Districts \(NRD\)](#)
- Field Trip and Guest Speaker Connections:
 - ◇ Community gardens and greenhouses
 - ◇ Local nature centers
 - ◇ Gardening clubs and societies
 - ◇ Local artists

Questions:

About the **lesson plans**, contact [The Center for Great Plains Studies](#).

Email: cgps@unl.edu | Office phone: 402.472.0602

About the **kits**, contact [Beyond School Bells](#).

Email: bsbinfo@nebraskachildren.org | Office phone: 402.476.9401

Supplies used in this curriculum:

- [Pentel oil pastels – 50 ct. \(2\)](#)
- [Watercolor palette, 8 colors – 18 ct.](#)
- [Refillable watercolor brush pens – 12 ct. \(2\)](#)
- [Small sketchbooks for drawing, painting, writing – 48 ct.](#)
- [Carson pocket microscope \(9\) + AA batteries](#)
- [Embroidery hoops, 4-inch diameter – 48 ct.](#)
- [Mini acrylic yarn packs - 20 ct. \(2\)](#)
- [Cotton embroidery monk's cloth – 1x2 yards](#)
- [Blunt darning needles for yarn embroidery – 40 ct.](#)
- [Dried beans \(black, red, pinto, kidney\)](#)

Other supplies you may need:

- Glue sticks and liquid glue
- Scissors
- Tape
- Ruler
- Colored pencils, crayons, markers
- Cardboard
- Nature specimens (e.g., leaf, twig, pinecone)



Shadow Plant Paintings

Featured Artwork

Bearberry is one of several illustrations in the Museum's collection inspired by the field notes from the Lewis and Clark Expedition of 1804 to 1806. In his journals, Meriwether Lewis describes bearberry with great detail, noting the appearance, use, and plant behavior. It's important to note that while Lewis documented the discovery, the plant was already known to Native American tribes who may have used it for spiritual ceremonies, as a food source, or as a medicine to treat urinary tract infections.

Bearberry is a short evergreen shrub native to Nebraska that produces red berries in late summer/fall. In the drawing to the right, Johnsgard and Johnson have illustrated the plant with detailed accuracy. This is known as scientific illustration, which was a common practice throughout the natural sciences to record, study, and communicate the nature of living things before cameras were invented.

Learning Objectives

- Create a shadow drawing of a flower or plant.
- Observe how the plant blocks a light source and casts a shadow on the opposite side.
- Reflect on instances where drawing a plant to study its structure can be more beneficial than taking a photo.



Paul A. Johnsgard & Allison Johnson, *Bearberry* (*Arctostaphylos uva-ursi*), n.d., colored pencil and ink on paper, gift of Paul A. Johnsgard.

About the Artists

Paul A. Johnsgard was a well known ornithologist (one who studies birds), author, teacher, and artist in Nebraska. In 2003, Johnsgard was giving a talk on Sandhill cranes and met Allison Johnson, a high school student who was sketching in the audience. The two connected over their shared interest in drawing animals and stayed in touch until Johnsgard passed away in 2021. Today, Johnson is an ornithologist and talented artist and credits this to her friend and mentor, Paul Johnsgard.

Art Activity

Time: 1 - 1.5 hrs

Materials:

- Plant specimen (flower, leaf, grass, etc.)
- Watercolor paper (or medium weight paper)
- Watercolor paint
- Paintbrushes
- Colored pencils
- Pencil



Instructions:

1 Collect your plant specimen. The example used here is a small stem of sea lavender. This is a perennial flower that grows in thick clumps and has an airy, cloudlike appearance with small purple flowers. Sea lavender is also a favorite source of nectar for pollinators such as butterflies, hummingbirds, and bees.



2 Next, gather a piece of paper and coloring materials. If you like, you can choose to sketch the flower first in pencil or use paint or colored pencils from the start. Find a source of light outside or inside. Remember, the plant must block the light to cast a shadow on the opposite side. Hover your plant specimen over the paper and experiment with positions until you achieve a shadow shape that you like.



3

Paint, draw, or color over the shadow's shapes. Don't be afraid to be loose with your brushstrokes or pencil marks. The goal is not to achieve scientific accuracy like the *Bearberry* illustration, but to have fun with shadow science art.

Tip: You may notice your shadow moving if you're using the sun as a light source. If this happens, slightly adjust the position of your plant specimen to match the new shadow position as you go.

**4**

Once you're happy with the final shape of your artwork, add in any details such as a stem, petals, or background. Add the name of the plant specimen to record for future study like a plant scientist does.



Share!

Share your new creation with family and friends. Discuss your design inspiration and creative process with a partner.

Explore more!

Experiment with other objects to draw or paint using shadows. For example, test out the shadow art of mini animal figurines or other nature specimens such as pinecones.



Dried Bean Nature Art

Featured Artwork

Relative Position is a beaded sculptural box that mixes nature with technology and traditional Native art. Each side of the box features a bird and a plant that are native to the Great Plains. Viewers can scan the QR codes at the bottom to reveal information about each species and their location. Inside the box are beaded waving lines that represent wind patterns. The geometric designs at the top mimic the patterns of parfleches, a folded bag made of rawhide (cow or buffalo skin) historically used by some Indigenous tribes.

Adams created *Relative Position* while she was an Artist in Residence at the Great Plains Art Museum in 2013. Speaking on the inspiration behind the piece Adams said, "My perspective is that we learn more about an ecosystem's health by looking at the ground for the variety of plants, by looking at the diversity of trees, and by listening to the cacophony of birdsongs. I think the variety of subtle landscapes is the real treasure of the Great Plains."

About the Artist

Molly Murphy Adams specializes in contemporary sculptural beadwork. She was born in Montana and is a mixed blood descendant of the Oglala, Lakota tribe. Adams describes her work as a mixture of traditional Native arts and modern art. She currently lives in Oklahoma and continues to explore creating art that reflects her background and traditions.

Learning Objectives

- Create your own beaded nature art using dried beans.
- Observe how each dried bean fits together to form different shapes in your artwork.
- Reflect on the importance of creating art that keeps traditions alive or encourages others to care for the environment.



Molly Murphy Adams, *Relative Position*, 2013, mixed media, commissioned for the Elizabeth Rubendall Artist-in-Residence Program.

Art Activity

Time: 1 - 1.5 hrs

Materials:

- Dried beans, seeds, or rice
- Liquid glue
- Piece of cardboard or paper plate
- Pencil
- Scissors
- Ruler (optional)



Instructions:

1 Cut out a piece of cardboard (example here is 8" x 10"). Next, draw a simple design using a pencil. This could be a butterfly, a leaf, a bird...anything that comes to mind!



2 Gather your dried beans, seeds, or rice and sort into piles by type and color. Plan where each bean will go and test various combinations. You can write in the names of each bean/color in sections (e.g., the wing here) as a guide before gluing.



3 Start with your first section and spread a generous and even layer of glue. Place beans one by one to fill the space. Be sure to press beans down firmly to ensure they will be fully stuck to the cardboard.



4 Next, move onto your next section and repeat the same steps. Continue these steps until you've filled in all spaces of your design.

5 Allow your artwork to dry flat at least an hour. Once dry, you can color the beans or empty spaces of the cardboard using paint or markers.



Tip: Spread another layer of glue over your fully dried artwork to create a protective seal.

Share!

Share your new creation with family and friends. Discuss your design inspiration and creative process with a partner.

Explore more!

If you created a plant or animal, try a geometric pattern next. Look at Molly Murphy Adams' parfleche inspired designs in *Relative Position* for inspiration.



Embroidered Prairie Art

Featured Artwork

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Learning Objectives

- Create an embroidered design of a native species or prairie landscape scene.
- Observe how you can "paint" with thread and yarn.
- Discuss - How does creating art about wildlife affect public awareness for caring for wildlife?



Molly Murphy Adams, *Relative Position*, 2013, mixed media, commissioned for the Elizabeth Rubendall Artist-in-Residence Program.

Art Activity

Time: 1 - 2 hrs

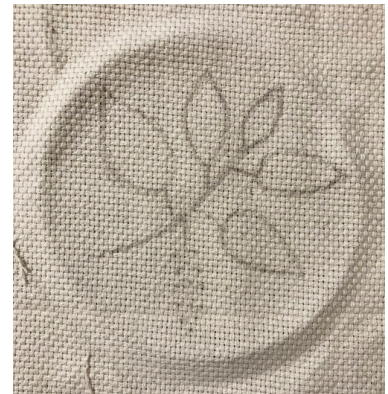
Materials:

- Yarn or embroidery floss
- Embroidery hoop
- Fabric (monk cloth or cotton)
- Darning needle
- Pencil
- Scissors
- Nature templates (optional)



Instructions:

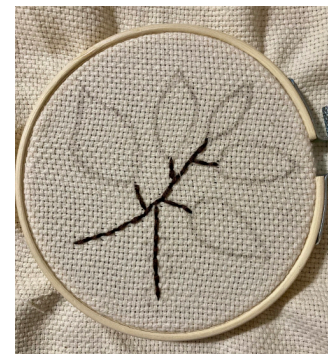
1 Research a native species in the Great Plains and select a design. Click the following links to find inspiration about [native trees](#), [wildflowers](#), or [birds](#). Draw your design on fabric using a pencil or light-colored marker. Shown here is a chokecherry tree branch.



2 Pick your first yarn and cut a string about 12 - 18" long. Tie a knot at one end. Make sure it is a fairly big knot so that it doesn't come loose. Pick a stitch to start filling in the lines or open spaces of your design.



3 The stitch shown here is called a backstitch. You can learn more about basic stitches [here](#). Secure a knot in the back once you've reached the end of your string.

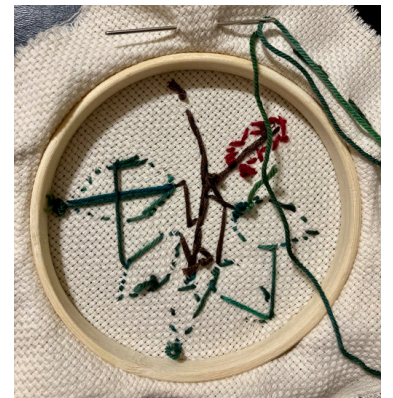


4

Next, move onto your next section and repeat the same steps. A french knot stitch was used in this example to create the berries of the chokecherry branch. To fill in any open spaces like the leaves here, you can use a satin stitch.

**5**

Tie off all of your last knots in the back. To finish off the back of the hoop, create a running stitch about 0.5" away from the hoop edge. Pull this stitch tight once you've made it back around to your first stitch (see [here](#) for a tutorial). This will gather the fabric toward the center. Tie off a last knot and you're done!



Share!

Share your new creation with family and friends. Discuss your design inspiration and creative process with a partner.

Explore more!

If you created a plant or animal, try a geometric pattern next. Look at Molly Murphy Adams' parfleche inspired designs in *Relative Position* for inspiration.



Microscope Nature Diptych Art

Featured Artwork

Prairie Grasses Series, Fall is a watercolor painting inspired by the grasses of the Great Plains during the fall. This painting is a part of Dienstbier's series focusing on prairie grasses throughout the seasons. While some may think of the prairie as brown and colorless during the fall, Dienstbier challenges this idea by painting a spray of vibrant colors. The blades of grass dance around one another, as if a gentle wind is blowing. Sprinkled throughout the painting are a handful of white flowers that have bloomed late in the season.

Dienstbier's painting resembles a diptych, which is a type of art that uses two pieces to form a pair. Often, the two pieces are connected in telling a story. Here, *Prairie Grasses Series, Fall* is connected in its composition across the two pieces. You can follow one blade of grass in the left picture, see how it stops at the edge, and pick up where it continues on in the right picture.

Learning Objectives

- Create two paintings of a nature specimen inspired by a diptych.
- Observe how your view of a nature specimen changes from looking at with and without a microscope.
- Discuss - What more can you discover about a nature specimen by looking at it up close?



Karen Dienstbier, *Prairie Grasses Series, Fall*, 1985, watercolor on paper, gift of Richard A. Dienstbier.

About the Artist

Karen Dienstbier is a Nebraska-based artist who creates colorful and vibrant watercolor paintings. She is especially inspired by flowers and landscapes and gathers inspiration from the natural world around her while taking walks in the wilderness.

Art Activity

Time: 1 - 1.5 hrs

Materials:

- Plant specimen (flower, leaf, etc.)
- Watercolor paper (or medium weight paper)
- Watercolor paint
- Paintbrushes
- Colored pencils
- Mini microscope (or magnifying glass)
- Pencil



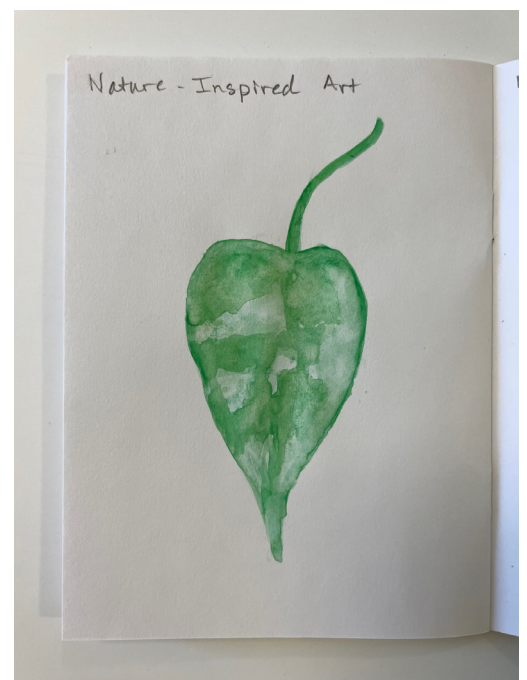
Instructions:

1 Go outside and find a nature specimen that you find unique and would like to paint. This could be a leaf, a twig, a flower, etc. Bring the nature specimen inside and gather all of your materials.



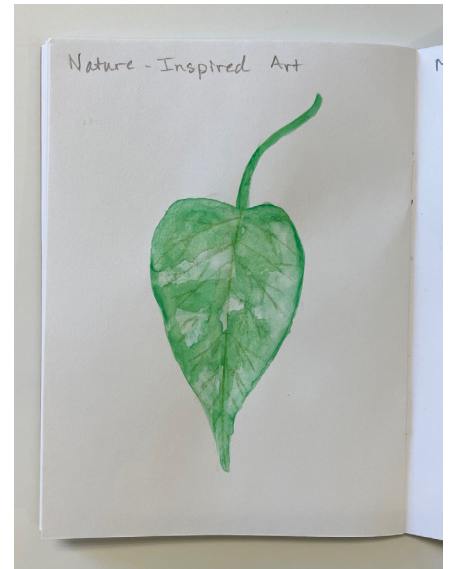
2 If you are using one sheet of paper, draw a line to divide the paper in half. The example here uses a small notebook with thick paper to prevent the watercolor paint from soaking through.

3 At the top of one half of the paper, write "Nature-Inspired Art". Begin painting an interpretation of the nature specimen as you see it in front of you.

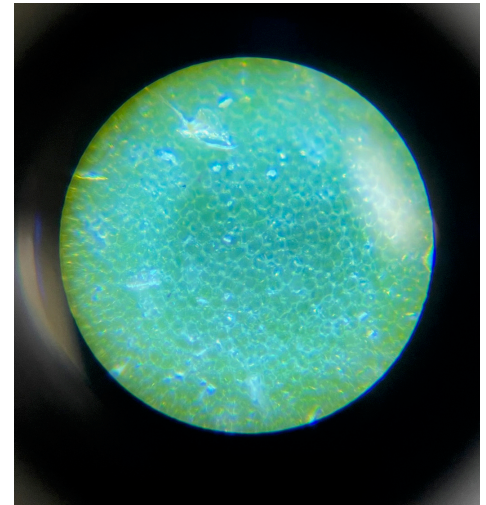


4

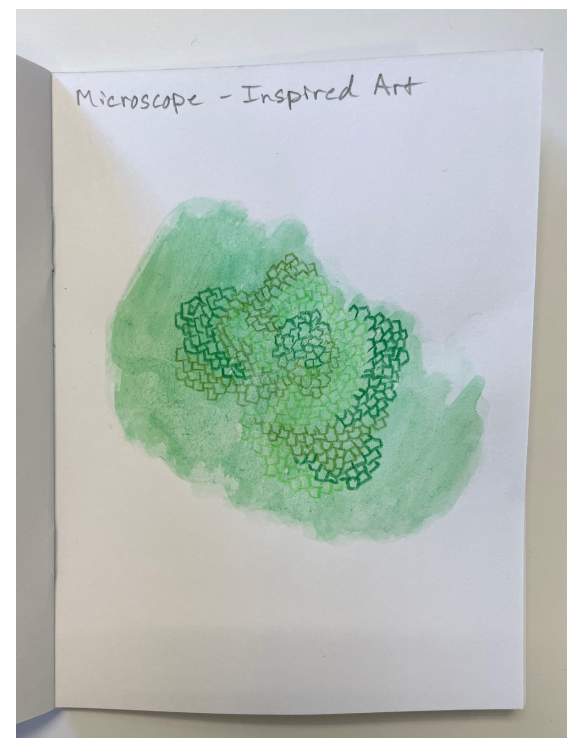
Next, add any details. You can use colored pencil on top of dried watercolor paint to add shading, lines, etc. Colored pencil was used here to draw in the leaf veins.

**5**

Next, use a mini microscope (or magnifying glass) to study your nature specimen up close. If you are using the microscope, adjust the magnification settings until you get a clear image. The image on the right is a close up of the cell walls of the leaf, which have a hexagon shape and are green from chlorophyll.

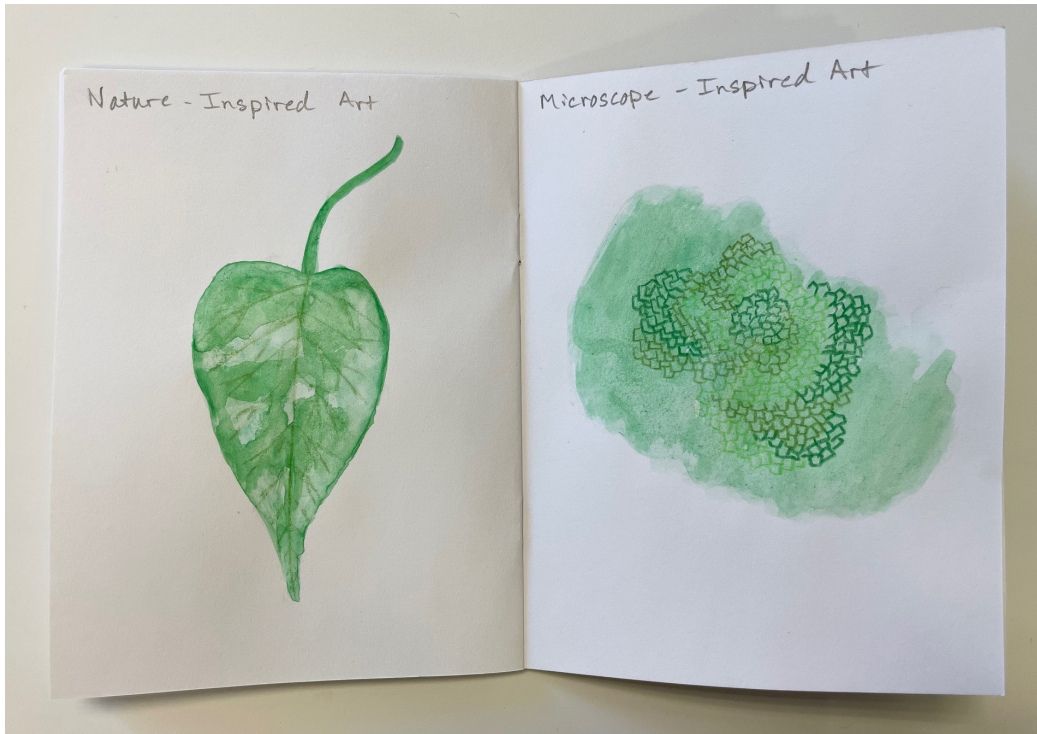
**6**

On the other half of your paper, write "Microscope-Inspired Art". Paint or draw what you see through the microscope. This can be abstract and creative. Add any details with colored pencil, crayons, or markers. The example here is a wash of watercolor paint with many connected squares drawn in with colored pencil to represent the leaf cells.



7

Compare your two paintings side by side. How do they form a pair (diptych)? How are they different? In what ways are they similar? Is one more abstract than the other?



Share!

Share your new creation with family and friends. Discuss your design inspiration and creative process with a partner.

Explore more!

If you created a diptych of a plant, try a different nature specimen next like a pinecone or twig. You can also experiment with different art materials such as colored pencils, crayons, or markers.