Nature Activities

- ★ These activities are meant to be flexible and done outdoors to help Iowa teachers & students connect to nature. Many of them could simply be a warm-up or extended into multiple lessons
- ★ Use the Iowa Prairie Network to find local prairies to visit. Simply scroll down to find your respective county and prairie that hosts a web page
- ★ Refer to Education at Irvine Prairie for field trip possibilities
- ★ Consider the Into Nature guide for more activities and full lessons as many of these here have been summarized for educational purposes from this guide

Before & After (K-8) **A**	Blindfolded (K-3) **Sc; L**	Geo-Mapping (6-7) **SS; Sc**	Big Wind Blows (K-8) **HPE; L**	Rainbow Chips (1-8) **A; L**
Nature Framing (K-8) **A; L**	Camo Pellets (1-7) **Sc; HPE**	Is This A Plant? (1-6) **L; Sc; A**	Micro Hiking (1-8) **Sc**	Wildflower Frenzy (1-8) **Sc; HPE**
Nature Blanks (K-8) **A**	Decomp Tag (1-8) **Sc; HPE**	Nature Interpreting (1-8) **L**	Mental Vacay (1-8) **HPE**	Animal Trackers (K-8) **Sc; L**
Leaf Art! (K-8) **A; Sc**	Patterns in Nature (K-6) **M**	Nature Charades (1-8) **Sc; L; A**	Painting Nature (K-3) **A; L**	Scavenger Hunt (1-8) **Sc; HPE**

Curriculum Key:

Sc: Science and Life Systems

A: The Arts

M: Mathematics

L: Language

SS: Social Studies

HPE: Health & Physical Education

Tallgrass Prairie Center
UNIVERSITY OF NORTHERN IOWA

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Before & After (K-8)

Curriculum Connection: Art or Visual Arts

Materials: Cameras and art materials

Activity: Students will choose a specific spot outdoors in a natural setting to take a photograph. Teacher will take students back once per month for the entire year (or suitable time period) to take subsequent photos. Create some type of art piece or collage inspired by the photographs. Create reflections on any changes that were seen and what feelings that invoked.

Possible Prompts or Leading Questions:

- Make a list of how you think your scene will change over time.
- What natural events do you expect would create scene changes?
- Were you surprised at any changes? Expectations spot on?
- Reflect on your expectations, photographs, and/or create a cartoon or comic strip to fill in the gaps of what we didn't see.

Extensions & Other Options:

- Have students draw their scenes instead of using photos
- For younger students (K-3) have everyone focus on one area
- Cut photos in half or thirds and students recreate the missing section for each visit

Nature Framing (K-8)

Curriculum Connection: Art or Visual Arts; Language (Oral Communication)

***Materials*:** One empty frame per student (use construction paper or cardstock) or students can use their fingers/hands

Activity: Every student is given an empty frame in a natural area. Students are the artists, looking through their frames for perspective and a scene they enjoy. Leave frames at their spots and regroup as a class to go on a gallery walk to each frame. Each frame is held by the artist for the class to peer through as it is described aloud.

Possible Prompts or Leading Questions:

- Pick a natural scene with your frame that reflects your mood
- Use your imagination and frame a setting or object to represent a character or place in a story
- Frame a scene that reminds you of a past experience

Extensions & Other Options:

- Instead of completing a gallery walk, use clipboards and draw the scene instead. Back indoors color or decorate the framed scene.
- Create a story revolving around your framed scene (ELA: Writing)
- Get into groups and add characters to the picture to perform a short drama or skit

Nature Blanks (K-8)

Curriculum Connection: Art or Visual Arts

***Materials*:** Blank postcards, cardstock, or construction paper; crayons, pencils, colored pencils, paints

Activity: Take your class to a natural area nearby, preferably an area where walking through or by various habitat is possible. Regroup either inside or stay outside for further inspiration. Students choose a plant, tree, animal, or some other natural part of the area to draw/paint. Once the pictures are complete, students will lie down and reflect on what characteristics drew them to this object. Record their thoughts.

Possible Prompts or Leading Questions:

- Remind students the importance of observation and to focus on capturing details in their pictures
- Ask students to think about questions they could ask you, their science teacher, or general inquiries as they draw and record their findings

Extensions & Other Options:

- Using technology (iPad or tablet), have your students take a variety of pictures from various perspectives of their area or natural object. Use these pictures once back inside to create their scene/picture
- The questions students think about make sure to have them record - create an extra credit project where they research biology, evolution, and facts revolving around their area of interest

Leaf Art! (K-8)

Curriculum Connection: Art or Visual Arts; Science & Life Systems

***Materials*:** Variety of leaves! Tracing paper, wax paper, parchment paper, and/or foil. Oil pastels, crayons, colored pencils, clipboards

Activity: Either collect a wide variety of leaves on your own or take your class on a walk near a wooded area to 'use' them as guides to collect leaves without telling them what they're for. Use folders to keep the leaves flat and not tear. Use clipboards to hold leaves in place and students select paper of choice to cover leaf. Slowly rub the medium of choice over the paper to create a leaf imprint (or rubbing). Mix & match for a collage.

Possible Prompts or Leading Questions:

- Keep your eyes peeled for many different sizes and shapes of leaves as we walk outside
- What different kinds of leaves can you spot in our walk outdoors?
- Think about how a leaf obtains its nutrients from the tree and what trees/plants get from their leaves
- What type of tree/plant did this leaf come from? What are its parts?

Extensions & Other Options:

- Learning basic structures of leaves and labeling their functions
- Mixing and matching papers and mediums in student collages to create a classwide or schoolwide mural

Blindfolded (K-3)

Curriculum Connection: Science & Life Systems; Oral Language

***Materials*:** One long rope and one blindfold per student

Activity: Help students blindfold each other and everyone hangs onto a long rope. The teacher and 1 student remain without blindfolds to hold the ends of the rope. The teacher will silently & slowly lead the class through a natural area that will stimulate the student's senses. Tell the students to think about how it feels, smells, sounds, and imagine that it is their home. Pause occasionally, sit, or use some other type of break to ensure an experience is being felt. Once to an open space, remove the blindfolds and discuss the senses or experiences.

Possible Prompts or Leading Questions:

- Attempt to frame the uniqueness of each student experience and how each of us experience the walk differently
- Encourage students to be silent so that a sensory experience can be had by all (consider stopping if students remain unsettled/noisy)

Extensions & Other Options:

- Bring technology or journals of some type so that students can record their emotions and feelings through a poem, story, or comic

Camo Pellets (1-7)

Curriculum Connection: Science & Life Systems; Health & PE

***Materials*:** Squares of paper and crayons for food break option

Activity: One student is chosen to be the Owl (predator) while the remaining students are Mice (prey). The Owl must stay in 1 spot (perch), close its eyes, and count to 20 while the Mice hide within a boundary. At 20, the Owl opens his/her eyes and yells, “Camo Pellets!” The Owl can turn all the way around but cannot leave the perch. The Owl must use its eyesight to call out the name of the student or color of clothing spotted. Once spotted, the Mice is considered eaten and turns into an ‘owl pellet’ to sit around the perch in a circle.

NOTE: Game best played in an area with long grasses or many trees/shrubs

Extensions & Other Options:

- If the mice are too well concealed consider creating a ‘food break’ where Mice MUST visit a food source (crayons or squares of paper)
- Shorten the game by lowering the count or placing food closer to Owl
- Make the food a required part of the game AND blindfold the Owl
- Prey must move like an animal and incorporate different types of prey such as a rabbit or a fox along with mice

Decomp Tag (1-8)

Curriculum Connection: Science & Life Systems; Health & PE

***Materials*:** None

Activity: Discuss with students the nature of decomposition and decomposers (fungi, insects, bacteria, worms, snails). One student is a 'Decomposer' and another is 'Death' and all others are living things. Death chases around living things and when tagged they will freeze OR lay down on the ground without moving. The Decomposer can tag a lifeless body and it will return to the life cycle as another living thing.

Possible Prompts or Leading Questions:

- What does decomposition mean? What are examples of a decomposer?
- What benefits does a decomposer provide the natural environment?
- Think about how our world would look without decomposition/decomposers.

Extensions & Other Options:

- Pause the game and loudly announce you are pulling the Decomposer out of the activity as it has been harmed by human activity. Reasons:
    - Slug ate slug bait in a garden
    - Insects die due to pesticides
- Discuss later in detail the life cycle and the interconnectedness
- Look closely for examples of decomp in your natural area

Patterns in Nature (K-6)

Curriculum Connection: Mathematics

Materials**:** *Optional:* writing or recording tools; magnifying glasses

Activity: Explain to your students that patterns and shapes can be found everywhere in nature and come in all sizes - or sounds! Discuss examples or find some images online to briefly showcase before going outside. Ask the students to take a walk quietly around the natural area for a few minutes, regroup, and share the patterns they observed. Examples: patterns of leaves, sound patterns of insects/birds, soil/twig shapes, plant fluff, etc.

Possible Prompts or Leading Questions:

- What is the most unique pattern you were able to find?
- For older children, consider prefacing your walk with discussing the Fibonacci sequence and/or the golden ratio and challenge the students to observe it

Extensions & Other Options:

- Group students together and get them to take pictures of the patterns they see; create a scavenger hunt of patterns you know can be observed
- Dissect a flower to look at shapes and patterns
- Get students to create their own shapes inspired by what they observed to create tessellations in the classroom of these patterns
- Students lie on their stomach; use a magnifying glass to seek patterns

Geo-Mapping (6-7)

Curriculum Connection: Social Studies; Science and Life Systems

***Materials*:** Clipboards & Pre-made copies of local maps (optional)

Activity: With clipboards, walk around the school grounds or local area. Observe and record the habitats or ecosystems that are present on your pre-made map or simply list them to be mapped later. Make notes of anything living in these habitats or what may be living there that is unseen.

Possible Prompts or Leading Questions:

- Review ecosystems and habitats in your area
- Discuss habitats and living things in the area you plan to visit
- What is the human impact in these systems? How are we connected?
- Are there environmental topics that could be discussed?

Extensions & Other Options:

- Have students create keys, scales, and landmarks for a blank map along with the habitats that were found
- Lightly color the maps and make them visually appealing
- Make sure student maps are thorough, then have students exchange with each other and take photos of each other's recordings/landmarks

Is This A Plant? (1-6)

Curriculum Connection: Language; Science and Life Systems; Arts

***Materials*:** None

Activity: Outside in a natural area point and showcase various plant species. Ask the students: Is this a tree or a shrub? Is it a wildflower or a weed? Is it a bulb or a vegetable? How do you know or how can you tell the difference? Why do we care and what purposes do they serve? How do they fit into our world and vice-versa?

Possible Prompts or Leading Questions:

- What are the characteristics of a plant? What are the characteristics of a tree? How are they technically different?
- In what ways are plants different from each other?
- Imagine a world without plants and describe it in detail.

Extensions & Other Options:

- Complete some schoolyard plant pressings for your own herbarium, notebook of specimens, or creative bookmarks
- Use GPS to mark different plants in various locations and make a map of them (*Social Studies*)
- Have students create dichotomous keys or branching diagrams. Do this in small groups or individually. Exchange them and test them.

Nature Interpreting (1-8)

Curriculum Connection: Language (Writing)

***Materials*:** Clipboards, writing or drawing materials

Activity: Go outside to a natural area. Ask your students: If you could be something out here in our natural world, what would you be and why? Write in journals. Draw pictures to elaborate.

Possible Prompts or Leading Questions:

- What types of things would you have to do to survive?
- How would the seasons affect you?
- Imagine a day in the life of whatever you chose and describe in as much as detail as possible

Extensions & Other Options:

- Pair students (optional) to create a story together on their musings
- Get students to think about their answer in the life cycle, research that cycle, and explain or draw it (*Science & Life Systems)*
- Ask students if they would like to share their answers to the class

Nature Charades (1-8)

Curriculum Connection: Oral Language; Science; Arts (Drama)

***Materials*:** White sheet or shrubs

Activity: Go outside to a natural area and form small groups for teams. Teams will brainstorm about aspects of nature to act out while the other teams attempt to guess (1-2 minutes). The depictions could be anything from an environmental topic for older students to general types of animals for younger students. *Option*: Make a list of topics and place them into a bowl to randomly select from. Then students make up their own.

Possible Prompts or Leading Questions:

- Before going outside, ask students to think about how to convey ideas and tangible aspects of nature without speaking
- Remind students to have fun together and include all members of the team to act out the idea

Extensions & Other Options:

- Consider adapting the game for a current or recent unit of study
- Instead of merely acting out a type of animal or plant, create actions along with the organism to help with the team inclusivity
- Have students submit ideas to act out so it's not entirely teacher driven

Big Wind Blows (K-8)

Curriculum Connection: Health and PE; Language (Oral)

***Materials*:** None

Activity: Sit or stand in a circle outside with 1 person in the middle. The person in the middle yells out a nature-related statement such as, "The big wind blows for anyone who *rode a bike to school today!*" People in the circle to whom it applies must run across the circle and find a new empty spot. One person will be left without a spot and becomes the person in the middle to call out a new nature statement.

Possible Prompts or Leading Questions:

- Jump in the middle first as the teacher or when students need some direction on the nature of the activity
- Use high movement as a means to pause and have a quick discussion with the students about nature & science topics

Extensions & Other Options:

- Consider thinking about ideas on slips of paper to be drawn; especially to help with the timid student who gets stuck in the middle
- This activity can be a good warmup or opener to a more detailed or hands-on lesson or learning experience

Micro-Hiking (1-8)

Curriculum Connection: Science & Life Systems

***Materials*:** Magnifying glasses and/or loupes, small action figures, metal spoons or tablespoons, notebooks, pencils, string, toothpicks (all optional)

Activity: Completed in pairs or individually. Each student will find a location on the school yard in a natural space for the micro-hike. Give them a set amount of time to lay on their stomachs and do a hike that is 1-meter long. Encourage students to gently dig or sift around in their space and find as many interesting things as they can, living, non-living, lift pebbles, scoop soil, etc. List their findings in notebooks or mark points of interests with toothpicks.

Possible Prompts or Leading Questions:

- Preserve your areas for living things that may inhabit them - return them like you found them (Leave No Trace)
- If you find some living creature, treat it with care and do not injure it. If uncomfortable handling it: take a photo, draw it, or list its details

Extensions & Other Options:

- Do a follow-up & discuss findings. This can be repeated in multiple areas to compare grass, dirt, leaves, etc. Create a comparison chart and show biodiversity differences
- Have students write a guide for each micro-trail
- Have students take one another on guided micro-trail hikes
- Create sketches or drawings of their hikes/trails

Mental Vacay (1-8)

Curriculum Connection: Health & PE; *Optional* Language & Arts

***Materials*:** None

Activity: Students will lie down in a natural space outside. Tell students to close their eyes and imagine their favorite outdoor place. Picture themselves being there and think through all of their senses of that space. Tell them they'll have three minutes of silence to visit this special place. After the exercise remind students that anyone can take a mental vacation to help with relaxation and calmness or when dealing with trouble, anger, or stressful times. A simple practice to improve happiness & health.

Possible Prompts or Leading Questions:

- Think about why you chose the place that you did.
- What adjectives can describe how you feel when there?
- Think about appropriate times you can do this and how you would benefit from doing this daily or a few times a week.

Extensions & Other Options:

- Allow students to write, draw, create a song or poem, or orally describe their favorite place they visited (*Language: Writing; Arts)*

Painting Nature (K-3)

Curriculum Connection: Arts; Language (Oral Communication)

***Materials*:** One paintbrush and one cup of water for each pair of students

Activity: Expose students to the use of texture in paintings of various works and artists. Explain and discuss one beautiful aspect of nature is the combination of textures and colors. In pairs, students should find interesting textured objects outdoors (leaves, twigs, grasses) and *gently* paint them using their brushes and water to explore the texture. Follow up with discussion on what was felt through painting nature.

Possible Prompts or Leading Questions:

- What happened when you applied water to texture? What's the first thing you noticed?
- Did your partner notice anything different?
- What changed as you painted with the water?

Extensions & Other Options:

- Surprise your students with small canvas boards and have them try to recreate (paint or draw) the textures they found while still outside so they have a concrete visual. If this isn't possible, take pictures and complete back in the classroom (*Arts)*
- After 5-10 minutes line up as a class and switch the pairs of students. Tell them to explain to each other what they painted previously and go find another natural object to paint with one another.

Rainbow Chips (1-8)

Curriculum Connection: Arts; Language (Oral Communication)

***Materials*:** Paint chips from any local paint store (or print your own on thick paper/cardstock)

Activity: Collect a large assortment of paint chips, cut them up, and place them in a bag. Give a student a chip and tell them to match it as closely as possible with something they find in nature. Tell them it may require close examination while being careful not to disturb or leave an impact to the habitats. Once a match is found, a student writes down the object/color or takes a picture and returns to get another chip.

Possible Prompts or Leading Questions:

- What colors will be the most difficult (or are the most difficult) to match? How would that change 6 months from now? Or in a different season?
- What other lines, shapes, or textures did you notice while searching for these colors?

Extensions & Other Options:

- Before or after: Have students mix paints together to match the color on the chips in the classroom
- Do the activity again but indoors and take notes or make a chart of the most frequently used or seen
- Use the student lists (or pictures) along with their mental images to create a nature scene, painting, drawing, etc

Wildflower Frenzy (1-8)

Curriculum Connection: Science & Life Systems; Health and PE

***Materials*:** Maps of area, pencil/paper, whistle. Game requires 8 or more adults or some type of marker 'planted' before the start of activity.

Activity: Each location of the adult and/or marker has a wildflower growing close by. Group should be split into teams as appropriate (3-5). Each team will have a sketch map, pencils/paper, and will begin at a starting point. Teams race to find the wildflower markers or adults hidden throughout the landscape, identify the wildflower, and mark it on their maps. Blow the whistle after 30 minutes for teams to return to the starting point. Collect maps, tallie results, and announce the winning team.

Possible Prompts or Leading Questions:

- A brief class intro to 10-15 wildflowers seen in area would be useful
- For reference & review, use Irvine Prairie Wildflower Guide
- Discuss types of wildflowers seen, characteristics, colors, and more that were observed during the game
- Irvine Prairie Firebreak/Trail map can be viewed here

Extensions & Other Options:

- A member of each team makes a quick sketch of the wildflower and labels basic parts and/or color of the flower
- Team members must hold hands during game
- A member of each team takes a picture of each wildflower for later class discussion on prairie ecosystem, tasks, or diagram labeling

Animal Trackers (K-8)

Curriculum Connection: Science & Life Systems; Language (Oral/Written)

***Materials*:** Pictures of animals and clear track imprints. Access to an outdoors area where imprints can be made (sandy, soil, etc.)

Activity: Divide students into groups of roughly 3. Create animal cards or laminated pages with name of animal and pictures/descriptions of their tracks. Examples could include: deer, raccoon, rabbit, wolf, bear, coyote, bobcat, fox, squirrel, weasel, otter, mink, bison, prairie dog, vole, etc. Teams will separate to different areas where they can create a set of those tracks given (*Optional materials*: plastic cutlery, pencils for forming tracks). Number the locations and teams will then go to each station and record their guesses as to what each set of tracks represents.

Possible Prompts or Leading Questions:

- Work closely with your groupmates to imitate the size and specific shapes of these footprints
- After recording all of their guesses have a discussion about what the most confusing stations were
- Are any of the animals on our list predator and prey of each other?

Extensions & Other Options:

- One person of each group stands by their tracks to make sure they aren't disturbed and/or teams cycle through to guess with that person
- Take class pictures of well-crafted prints and the activity as a whole to hang up in school

Scavenger Hunt (1-8)

Curriculum Connection: Science & Life Systems; Health & PE

***Materials*:** None -or- create & laminate pictures for natural parts of the environment that exist in your area but may not be present currently

Activity: Make student groups of 3-4. Create a scavenger hunt list of natural items outdoors you know will be present in the outdoor area visited. If visiting prairie habitat, refer to list of ideas below to help create yours. Create various point values connected to each object and students must take a picture and/or collect evidence of finding it. Make students return to you after each discovery for more or additional points encouraging speed. Teams with the highest number of points win. Remind students to leave a responsible trace of activity and appropriate care for nature returning things as close as possible to before we arrived.

Possible Prompts or Leading Questions:

- Specify non-living objects so they can be moved, taken, or placed back; find something that doesn't belong in nature
- Find 2 different textures in nature; specify finding a certain color, shape, or size
- Find a feather or some other sign of an animal
- Find something older than the teacher

Extensions & Other Options:

- Students can create their own lists based on area knowledge
- Make an optional (yet large) list where students can pick & choose what they take photos of to create presentations later
- Gather a set number of objects to create a written story

Prairie Habitat Scavenger Hunt Ideas

- Monarch Butterfly
- 2 similar looking small rocks or similar pebbles
- Some type of seed
- Wildflowers of various colors (yellow, purple, white, red, pink, indigo, etc.)
- A flying insect (name it)
- Any small songbird (what is it or color was it?)
- Tallgrasses of the prairie & measure them (big bluestem, indiangrass, switchgrass, porcupine grass, etc.)
- Light colored soil and/or dark colored soil
- Animal tracks/footprints
- Spider and/or spider web
- A large hawk, owl, crow, or vulture
- Bird nest or a feather
- Moss, mushroom, or fungi
- A cloud (what kind is it?)
- A ground insect (no wings) (what is it?)
- Any leaves or sticks
- Any mammal (what is it?)
- Ant hill
- A hole or burrow
- Cocoon or pupa
- Berry, fruit, or nut
- A piece of litter to be thrown away
- Something that makes noise without touching it
- Animal poop
- Bird song or call (describe it)
- Any herp (what type is it? What color is it?)