



All classroom programs are offered November through mid-April unless otherwise noted.

PreK - Snakes Alive (45 minutes) - We often fear what we don't understand. Introduce your students to a live snake and learn what makes snakes special.

PreK - Super Spiders (45 minutes) - Learn the body parts of spiders, basic web designs, how they catch food, and why they are important.

PreK & K - Animals Prepare for Winter (45 minutes; Nov.-Jan.) - Learn what animals are doing to prepare for the cold winter months. K-LS1-1, K-ESS3-1

PreK & K - Birds of a Feather (45 minutes) - Discover how birds use their special adaptations. K-LS1-1, K-ESS2-2, K-ESS3-1

K- From Egg to Animal (45 minutes) - Discover the wide variety of animals that hatch out of eggs. K-LS1-1

K- Magnificent Mammals (45 minutes) - Explore what makes a mammal unique. K-LS1-1

K & 1st grade - Happening Herps (45 minutes/ 1 hour) - Learn the difference between reptiles and amphibians. Live animals are a part of this hands-on program. K-LS1-1, 1-LS3-1, 1-LS1-2

1st grade - Ants Ants Ants (1 hour) - Investigate insects by studying ants. The program includes a demonstration of various ant jobs, general insect parts, and more. 1-LS3-1, 1-LS1-2

1st grade - My Woods (1 hour) - Explore a special habitat by using your senses. Learn why the outdoors is an important place for animals and people. (observations and evidence, patterns)

1st grade - Light and Sound (1 hour) - Animals, including humans, use light to see and vibrations to hear. By conducting experiments, students will discover why light is important for sight and how vibrations help us and animals hear. 1-PS4-2, 1-PS4-1, 1-PS4-4

1st & 2nd grade - Who Goes There? (1 hour) - Be an animal detective! Learn to read the many signs left behind by animals to solve the mystery of "Who Goes There?" (patterns, cause and effect, observations and evidence)

2nd grade - Rainforest Links (1 hour) - Explore the tropical rainforests of the world. Learn about their form and function through activities and discussion. Help link rainforest creatures to each other and discover how we are linked as well. 2-LS4-1

2nd grade - Animal Adaptations (1 hour) - Students will get their hands-on unique animal components and explore adaptations through inquiry-based team research. 2-LS4-1

2nd grade - Dr. Dirt (1 hour) - Dr. Dirt cooks up the recipe for Iowa's million-dollar soils, and students get their hands dirty investigating soil properties. Find out why our soil is eroding and how we can save it! 2-PS1-1, 2-PS1-2, 2-ESS1-1, 2-ESS2-1

2nd grade - Planting the Seeds (1 hour) - Planting the Seed (1 hour)- Lots of hands-on exploring while learning how seeds move. Students will help set-up an experiment to observe what plants need to grow. The experiment requires each classroom to take care of seeds/plants for a couple weeks. 2-LS2-1, 2-LS2-2

2nd & 3rd grade - EXTREME Reptiles (1.5 hours) - Through an interactive game, learn what strategies reptiles use to help the survival of their offspring. Students will develop a model to discover many unique adaptations reptiles use to survive in their habitats. 2-LS4-1, 3-LS4-3

3rd grade - Remarkable Raptors (1 hour) - Sharp talons, powerful wings, a hooked beak, keen eye sight, and a carnivorous diet are several adaptations raptors share that allow them to thrive in the wild. Students will learn all about these amazing birds and how they have evolved to become such fierce predators. 3-LS4-3

3rd grade - Wonders of Weather (1.25 hours) - Learn the components of weather through hands-on learning stations. 3-ESS2-1

3rd grade- Symbolic Monarch Migration (1 hour September; 45 min late March early April) – Learn about the life cycle and annual migration of monarch butterflies. Students will participate in an international project by creating butterflies to send to students in Mexico. Their butterflies will overwinter in Mexico and will be sent back north in the spring. We will discuss how protecting these butterflies is a joint effort between Canada, Mexico, and the United States. 3-LS1-1, 3-LS2-1

3rd & 4th grade - Ancient Animals (1 hour) - Discover what ancient animals lived in Iowa, extinction theories for Ice Age mammals, and what scientists learn from fossils. Students will make a fossil to keep. 3-LS4-1, 4-ESS1-1

3rd & 4th grade - Fabulous Fossils (1 hour) - What was Iowa like 400 million years ago? This program explores Iowa’s geologic history and how fossils are made. 3-LS4-1, 4-ESS1-1

3rd & 4th grade - Shocking Developments (1.25 hours; Nov.-March) - It’s a shock where electricity can be found in nature! Learn all about electricity and do some amazing hands-on experiments. 3PS2-3, 4-PS3-2, 4-PS3-4

4th grade - Skins and Skulls (1 hour) - Investigate who eats what based on the evidence of teeth and skulls. Student teams match structure to function to reveal the identities of eight Iowa mammals in this hands-on program. 4-LS1-1 (observations and evidence, patterns)

4th grade - The Garbologist (1 hour) - This interactive and wacky program introduces students to the garbage cycle. Learn what we throw away, how it fuels energy production, and what we can do to reduce garbage. 4-ESS3-1

4th grade - Team Building (1 hour; August) - Team building is a fun, interactive way to get to know your class as a whole and as individuals. This program will challenge your students to think as a group and communicate with one another as a team. 21.3-5.ES.1-4

4th & 5th grade - Traveling Trunk (1.5 hours) - Meet a woman from the past and learn about her move west and life on the prairie in the 1860s. SS.4.18, SS.4.19, SS.4.22, SS.4.23, SS.5.21, SS.5.22

4th & 6th grade - Rock It (1 hour) - Explore the three processes that form rocks. 4-ESS1-1, MS-ESS2-1

4th & 6th grade - Circulation Spectacular (1 hour) - Explore the circulatory systems of various animals. Dissected fish and mammal hearts will be brought into the classroom. If you want the full “hands-on” experience, please provide examination gloves for your students. 4-LS1-1, MS-LS1-3

4th-8th grade - We All Live in A Watershed (1 hour) - Dive into the water cycle, watersheds, and water quality with this highly interactive program. Students each receive a “puzzle piece” of land and are then given free rein to be creative and build whatever they’d like. How will the shared water resources be impacted by everyone’s choices? 4-ESS3-2, 5-ESS2-1, 5-ESS3-1, MS-ESS3-3

5th grade – Invasive Species (1 hour) - Participants learn about the difference between invasive and native species. It also informs students about the harmful impacts invasive species have on their ecosystems. 5-LS2-1; specifically, LS2-A Interdependent relationships in ecosystems 3-5-ETS1-1. (Engineering design)

5th-7th grade - The Wonderful World of Wetlands (1 hour) - Explore the wonderful world of wetlands and learn how these vibrant habitats support biodiversity, filter pollution, and reduce flooding! An interactive game teaches how this Iowa ecosystem became endangered over time, and stories about communities protecting wetlands show solutions for a healthy environment! 5-ESS3-1, MS-LS2-1, MS-LS2-4

5th-8th grade - Biodiversity Bonanza (1 hour) - Students will learn about the importance of biodiversity, niches within ecosystems, trophic levels (who’s eating who!), and more. 5-LS2-1, MS-LS2-3, MS-LS2-4, MS-LS2-5

5th & 8th grade - Endangered Species (1.25 hours) - Understand how humans impact biodiversity and why animals become endangered by playing interactive games. Students will then put their knowledge to the test as they explore animal artifacts and brainstorm ways to protect Earth’s biodiversity. 5-ESS3-1, MS-ESS3-3

5th & 8th grade - Enviroscape (1 hour) - Hands-on learning about water pollution connects what we do on land to what happens in our rivers, lakes, and oceans. 5-ESS2-1, 5-ESS3-1, MS-ESS3-3



Morning sessions will end at 11:30 am and afternoon sessions will start no sooner than 12:00 pm.

(Denotes teacher and/or parent led activities are a part of this outdoor experience.*

All grades - Discovery Hike (1-1.5 hours; Sept.-May) - Spontaneous interpretation. Nature only knows what we will find.

PreK- I Spy (45 minutes; Oct.-Nov. & late April-May) - Explore nature using letters, colors, and numbers.

K- *Nature Detectives (1.5 hours; late April-May) - Using their senses to uncover clues, “detectives” will investigate the forest through inquiry and hands-on observation.
K-LS1-1, K-ESS2-2, K-ESS3-1

K- *Life in a Log (2 hours; late April - May) - By digging through a composting worm bin and investigating fallen logs, students will determine what plants and animals need in their habitats to survive. Through hands-on discoveries, they will learn how composting can help the local environment. K-LS1-1, K-ESS3-3

1st grade - *Bird Nerds (2-2.5 hours; late April-May) - Discover how adult bird behaviors help young birds survive and thrive. Students will design a safe nest, protect and feed their “nestlings,” and hike to meet the birds in their habitats. 1-LS1-2, 1-LS3-1

1st grade- Animal Architects (1.5 hours) – Explore how animals use different body parts and natural materials to construct shelters. Students will apply what they learn when they build a small shelter. Will their shelters be waterproof and strong?
1-LS-1

1st & 3rd grade - *Insectology (1.5 & 2 hours; Sept.-Oct. & May) - Learn the characteristics of insects and their survival strategies. Collect insects to observe and identify.
1-LS1-1, 3-LS1-1

2nd grade - Plant Parts and Pollination (1.5 hours; Sept.-Oct. & late April-May) - Learn about plant parts and life cycles, pollination, and how animals interact with a plant community.
2-LS2-1, 2-LS2-2

2nd grade - *Pond Study (2-2.5 hours or all day; May) - A lake is an amazing habitat full of critters. Students will learn about the food chain and use nets to explore and discover pond life. 2-LS4-1, 2-ESS2-3

2nd grade - *Tree-rific (2-2.5 hours; October) - Students learn about the inner workings of trees, their benefit to wildlife, and tree identification. 2-LS2-1, 2-LS2-2, 2-LS4-1 **Allergy alert – One of the activities involves collecting tree nuts. Let us know if you have a nut allergy in your class.**

3rd grade - *Birding Bonanza (2-2.5 hours; late April-May) - Students scour different habitats to learn about bird adaptations, practice using binoculars, and identify birds by sight and call. 3-LS1-1, 3-LS2-1, 3-LS4-2, 3-LS4-3

3rd grade - *Prairies (2-2.5 hours; Sept.-Oct.) - Through hands-on discovery, students learn about Iowa’s once vast prairies and their animal inhabitants. 3-LS4-3, 3-LS4-4

3rd & 4th grade - *Naturally Sensational (2-2.5 hours; Sept.-May) - Discover how local organisms use their senses to survive within their habitats. A series of hands-on experiments, a naturalist-led hike, and journaling make this program “*Naturally Sensational.*”
4-LS1-1, 4-LS1-2

4th & 5th grade - *Iowa History Day (all day; late April-May) - Students travel back to 1869. Cooking, making soap, and doing laundry are a few of the hands-on activities offered. SS.4.10, SS.4.23, SS.4.25, SS.5.21, SS.5.22, SS.5.24
Prerequisite: Traveling Trunk in-class program.

4th grade & up - *GPS and Geocaching (2-2.5 hours; Sept.-May) – Understand how a GPS works and use one to find hidden locations around the park, like the sport of geocaching. 21.3-5.ES.1, 21.3-5.TL.6, 21.3-5.HL.5, 21.6-8.HL.5, 21.6-8.ES.1

4th grade & up - Snowshoeing (1.5-2.5 hours; Dec-Feb.) - Snowshoeing is a great way to spend a winter day. After learning about equipment, techniques, and safety, students will venture through McFarland Park. 21.3-5.HL.5, 21.6-8.HL.5, 21.9-12.HL.5

4th grade & up - *Service Learning (2 hours; Sept.-May) - Help your students learn the importance of giving back to the community through volunteerism. Many of our county areas need help! Your class can help remove invasive species or collect prairie seed. The service project will depend on the season and the time will depend on the activity. 5-ESS3-1

5th grade - *Hatchet (2-2.5 hours; Oct.-May) - After your students finish reading *Hatchet* or another wilderness survival-based book, bring them to McFarland Park to experience survival shelter and fire building. RL.5.1, RL.5.2, RL.5.3
Please tell us which book you will read.

5th & 6th grade – Outdoor Day (all day; September or May) – Canoeing, orienteering and team building. 21.3-5.ES.1, 21.3-5.ES.2, 21.3-5.ES.3, 21.3-5.ES.4, 21.6-8.ES.1, 21.6-8.ES.2, 21.6-8.ES.3, 21.3-8.HL.5

5th grade & up - Ice Fishing (2-2.5 hours; Dec.-Feb.) - Ice fishing is a great way to spend a winter day. After learning about equipment, techniques, and safety, students will venture onto the ice to try catching fish. 21.3-5.HL.5, 21.6-8.HL.5, 21.9-12.HL.5

Fees are assessed to schools and daycares scheduling environmental education programs and outdoor experiences. Two options are offered, to be decided in advance:

1. For multiple programs, the fee is \$1.25 per student enrolled in the school attendance center.
2. For individual programs, the fee is \$1.25 per student per program (minimum charge of \$20).

To schedule in-class programs or outdoor experiences, contact the environmental education coordinator Monday through Friday, 8:30 am to 4:30 pm, at 515-232-2516 or email jkeys@storycountyiowa.gov.

If we don't have what you are looking for, let us know. We may be able to create a program or field trip for your class.

Story County Conservation Contact Information

Phone: 515-232-2516

Jerry Keys, Environmental Education Coordinator: jkeys@storycountyiowa.gov

Bekah Beall, Naturalist: rbeall@storycountyiowa.gov

Bobbi Donovan, Naturalist: bdonovan@storycountyiowa.gov

Amber Carpenter, Naturalist: acarpenter@storycountyiowa.gov

Clair Pfantz, Naturalist: cpfantz@storycountyiowa.gov



Outdoor Experience Information

- We request **one adult helper for every five students**. Adult helpers are expected to participate fully in all activities, dress appropriately, sit with the children, and help keep them on task. We ask that adult helpers **not** bring young children or smoke in the presence of students. Please ask helpers to quiet AND NOT USE their cell phones.
- Dress in clothes and shoes that can get dirty. **Requiring students to wear long pants and comfortable closed-toe shoes for walking is best.** However, shorts and/or sandals (**NO flip flops**) may be worn for the following outdoor experiences:
 - *Birding Bonanza - Shorts permitted*
 - *Bird Nerds - Shorts permitted*
 - *I Spy - Shorts permitted*
 - *Outdoor Day - Shorts and sandals permitted*
 - *Pond Study - Shorts permitted*
- It is usually cooler at the parks than in town. Have students **dress in layers**: t-shirt, long-sleeved shirt, sweater or sweatshirt, and jacket. A hat with a bill provides protection from the sun.
- Bring **rain gear**, insect repellants, and sunscreen if needed.
- In the **winter**, wear a warm winter coat, snow or insulated pants, mittens or gloves, and a scarf. Wear a stocking cap and warm (preferably waterproof) boots.
- If your outdoor experience trip includes lunch, encourage your students to pack an environmentally friendly lunch that creates as little trash as possible. Please bring **garbage bags for your trash**. We have a carry-in, carry-out policy at our parks.
- **Composting education** is now available for outdoor experiences at McFarland Park. Please indicate upon scheduling if you would like this to be included.
- **Teacher and/or parent led activities** are a part of the following outdoor experiences:
 - *Nature Detectives*
 - *Pond Study*
 - *Tree-rific*
 - *Prairies*
 - *Birding Bonanza*
 - *Naturally Sensational*
 - *GPS and Geocaching*
 - *Iowa History Day*
 - *Bird Nerds*
 - *Insectology*
 - *Service Learning*
 - *Hatchet*
- **Have each student bring a water bottle**. Some areas in the parks do not have easy access to a drinking fountain.

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Potential Dangers in the field and what you can do to protect yourself:

Lyme disease



- Transmitted through the bite of a deer tick.
- Symptoms of the disease include fatigue, muscle aches, headaches, low-grade fever, chills, sore throat, and swollen glands.
- Removing a tick within 24 hours can greatly reduce the chances of transmission.
- Treated by doctor with prescribed antibiotics.
- **Protect yourself by wearing light-colored clothing, pants tucked inside of socks and closed-toe shoes. Always do a head-to-toe check after being outdoors.**

Poison Ivy



- Allergic reactions are caused by urushiol found in all parts of the plant and is released when the plant is touched.
- It causes an allergic reaction characterized by red, itching welts followed by water-filled blisters.
- Treat rash with calamine lotion, 0.5% hydrocortisone, and/or antihistamines.
- **Protect yourself by recognizing this plant. Wash skin and clothes exposed to poison ivy with soapy water.**

Wild Parsnip



- Non-allergic reaction is caused by chemicals called psoralens contained in the plant juices. Reaction intensifies in the presence of sunlight.
- Reaction burns the skin causing the formation of blisters.
- Relieve burning by covering the exposed area with cool cloth. If blisters pop, they should be treated with antibiotic cream and covered with a band-aid.
- **Protect yourself by recognizing this plant and staying clear of it!**

West Nile Virus

- Carried by mosquitoes that become infected when they feed on birds carrying the virus.
- Most people who are infected don't develop symptoms.
- A minority of people may develop a mild illness with fever, headache, body aches, and swollen glands.
- Infection can lead to a severe illness known as West Nile encephalitis. However, the risk of contracting this disease is low.
- **Protect yourself by wearing long sleeves and pants with dense fabric and insect repellent containing DEET.**

Story County Conservation's Weather Policy

- Students need to come dressed for the weather conditions.
- Outdoor experiences will be postponed or canceled if there is lightning or other severe weather.
- **Busses need to stay onsite** on days of questionable weather in case the weather becomes severe and the program must be canceled.
- We have a multi-purpose room at the conservation center to utilize for some rainy outdoor experiences. However, not all experiences can be moved indoors and may need to be canceled.
- **On days of questionable weather conditions, if you call before 8:30 AM, please leave a message on Jerry's direct line 515-598-4765.**

Lower Elementary Nature Boxes

Boxes can be checked out for two weeks. They must be picked up and returned during business hours to the Conservation Center at McFarland Park, 56461 180th St., Ames, IA unless other arrangements are made.

To reserve a box, contact Naturalist Clair Pfantz at 515-232-2516, Monday-Friday, 8:30 am - 4:30 pm or email at cpfantz@storycountyowa.gov.

Nature boxes contain background information, materials, and activities including puzzles, crafts, games, finger plays, poems, felt boards, and nature items to explore. Box subjects offered:

Pre-K through kindergarten ages:

- **Camouflage:** types of camouflage, insect camouflage, and monarch butterflies
- **Creatures of the Night:** night-time animal adaptations, bats, owls, and nocturnal insects
- **Dirt and Seeds:** soil, worms, and insects, as well as seed types and formation
- **Honeybees:** bee characteristics and behaviors including eyesight, body structures, and jobs
- **Spiders:** spider characteristics and behaviors including web design, life cycle, and body structures
- **Pond Habitat:** life in a pond including tadpoles, frogs, insects, and ducks
- **Prairie and Insects:** life in a prairie including insects, grasses, and flowers
- **Woods Habitat:** life in a woodland including parts of a tree, leaf shape, and woodland animals

1st through 3rd grade ages:

- **Rocks & Fossils:** compare rock types, rock formation, and fossils
- **Tracks:** identifying animal signs including mysteries and track matching
- **Ice Age Mammals:** comparing the ice age to recent years through mammal characteristics, glaciers, survival techniques, cultures of early people, and tools of paleontologists and archaeologists



2025-26 Environmental Education Programs

Program	Date	Time(s)	Location

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