

# Jackson County Conservation

## Environmental Education Guide Grades PK-5

### Who We Are

The Jackson County Conservation Department manages over 35 parks in the county, including: campgrounds, wildlife areas, historic sites, river accesses and an interpretive center. Our education staff provide outdoor recreation and education opportunities throughout the county. Outreach program are available to schools, civic groups, youth groups, nursing homes, etc.

### Fees

Most of our programs are provided **free of charge**. A few presentations require material fees, which we pass onto the group. Donations for our EE program are appreciated. We do charge a nominal fee for tour groups, summer programs and after school programs.

### Design your own Program

The programs listed in this guide are programs that we have ready to go. A program can be created to fit the needs of your curriculum and to achieve state standards. It is requested that ample time be given to create and develop such activities. Our programs can be adapted for all ages, grades, and skill levels.

### Special Projects & Events

We'd love to help with any project or event that involves the environment and our natural resources. Recycling events, Earth Day projects, planting a butterfly garden, citizen science and more. Contact us for more information about projects/events or to ask how we can help!

### Field Studies & Trips

Outdoor programs are truly the best way to learn and experience what our environment has to offer. Through these interactive hands-on programs, students are better able to apply knowledge and reinforce learned skills.



We can stick close to your school by utilizing the schoolyard or local parks. If transportation is available, there are a number of great destinations in Jackson County. Friends of Jackson County Conservation offers bus scholarships for Jackson County schools for outdoor related field trips.



Our headquarters, the **Hurstville Interpretive Center** is a popular choice, with interactive exhibits indoors, including a live bee hive, prairie and wetland diorama, live animals, and more. We can head outdoors for a walk through the prairie and along the marsh to learn more about Iowa's landscape. We have a multitude of programs and activities that we can do with your group at the HIC utilizing the building, prairie, wetland, and butterfly garden.

Other popular locations in Jackson County include: Maquoketa Caves State Park, Prairie Creek Recreation Area, Bellevue State Park, Green Island, Eden Valley Refuge, and Millrock One-room Schoolhouse.

*Please contact us for more information or to set up a field trip with your students.*

**To schedule a program, field trip, or for more information please contact:**

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*Jackson County Conservation, Hurstville Interpretive Center, 18670 63rd Street Maquoketa, IA 52060*

## Classroom Programs

*Programs listed are suggested for that grade but can be adapted to any age/grade/ability level.*

### **Preschool**

- Salamander Room**— learn about salamanders and their habitats through a fun story.
- Animal Tails**— all about how and why animals use their tails.
- Eggs, Eggs, Eggs**— go on an egg hunt, learn about what animals lay eggs and touch real eggs.
- Nocturnal Animals**— explore why some animals sleep during the day and are awake at night.
- Owl Moon**— following the story Owl Moon, students will feel real feathers and talons of Iowa owls.
- The Mitten**— discover how animals survive the winter and feel real animal furs.
- Leafy Leaves**— (fall only) learn about the seasons, color changes and trees in Iowa.
- Bobcats in the Snow**— pounce like a bobcat and learn more about these secretive creatures.
- One Dog Canoe**— we'll talk about water safety and paddling and animals that live in the water.
- Astronomy**— learn about the phases of the moon and why the sun cast shadows.

### **Kindergarten**

- Feathers, Fossils, and Fuzz**— Learn about textures in nature by sorting natural items that are rough, smooth, hard, and soft.
- Are We the Same?**— Students will observe the difference in animal groups by sorting real artifacts into groups (reptile, mammal, etc..).
- Where's Your Winter Coat?**— This program will look at how Iowa animals survive the winter: migration, hibernation, and adaptation.
- The Pond Builder**— This program focuses on beaver adaptations that help them “do their job”.
- Living and Non-living**— Students will sort objects from nature into the two categories while learning about their characteristics.
- Turkey's Gift to the People**— Through a story and “turkey stuff” students will learn more about this creature of our Iowa woodlands.
- Rock Collection**— Students will learn about different kinds of rocks and write a rock report. We'll use rock collections, a story book and hand lens.

### **1st Grade**

- The First Dog**— A story, wolf skin & other materials help the students visualize this wild ancestor to our pet dogs.
- Snake Sense**— Real snakes will be used to learn more about our reptile friends and their senses.
- Bats**— Let's correct the many misconceptions people have about bats.
- Build a Bird Feeder**— Students will make simple feeders to take home and an ID guide of common birds that may visit their feeders.
- Animal Homes**— Food, water, shelter and space are the four basic needs. We'll focus on the need for shelter and look at a variety of animal homes.

### **2nd Grade**

- Endangered Species**— What causes animals and plants to become endangered species? Museum mounts and furs of some of Iowa's special animals will be used.
- Bugs! Bugs! Bugs!**— Insect exoskeletons, insect homes, chrysalides and other items are used to examine the natural history of our six-legged neighbors. Students will use a special lens to see the world through the eyes of an insect.
- Forests are More Than Trees**— A slide show and art activity will illustrate the many services and materials that forests provide for wildlife, water resources, and humans.
- Seed Dispersal**— students will examine real seeds from various plants to learn about different dispersal methods.
- This is GREAT Water**— Students will use ground water models to illustrate sources of drinking water and investigate how water resources can be polluted.
- The Lunch Box**— We will bring two ‘picnic lunches’ to your classroom and guide your students through a comparison of the amount of trash each one produces. The program encourages students to make wise choices when selecting foods for their lunches.
- Trumpeter Swans**— Feathers, eggs, and other hands on materials help students “see” just how big these birds are. And they will learn how these birds are making a comeback in Iowa.



## 3rd Grade

**Nature's Engineer**– This program investigates how beavers change the surrounding environment for other animals and humans.

**How Grandmother Spider Stole the Sun**– Learn about Turkey Vultures and their role in the ecosystem.

**Nature Did It First**– Students will examine similar functions of man-made tools with animal and plant adaptations. Lots of natural artifacts are passed around during this program.

**Bison**– Learn why bison were so important to the Native Americans of the Great Plains. Students will examine bison bones, a bison hide, and other materials.

**A Feather in Her Hat**– After students listen to the story “She’s Wearing a Dead Bird on Her Head”; they will be guided through a discussion of how the persons involved addressed an issue of concern.

**Monarchs**– SEPTEMBER ONLY. Learn about the migration of monarch butterflies to their winter home in Mexico. If specimens are available, students will help tag fall migrants as part of a North American study of the migration.



## 4th Grade

**A Country So Full of Game**– Following a discussion of wildlife that was noted by early explorers and settlers in Iowa, students will compare the sizes of extirpated species to those with similar niches that are still found in Iowa. Maps as well as furs and other natural history items will be used during the discussion.

**Predators**– A slide show and discussion will examine the role predators play in natural communities, as well as attitudes toward some of these predators. Some predator artifacts are used to help the students understand how adaptations help predators “do their jobs”.

**The Better to Eat With**– After examining the beaks of several different types of birds, the students will try to “eat like a bird” at several “feeding stations”. From these attempts they will work as a team to decide which bird beak their common household tool represents. They will present their decision to the rest of the class and state the reasons for their choice.

## 4th Grade (continued)

**Who-o Goes There?**– This program explores the relationship between owls and their prey. Students will identify the adaptations that enable owls to be nighttime hunters.

**Oh Deer!**– This “active” program will illustrate how availability of food, water, shelter and space in an animal’s habitat affect wildlife populations.

## 5th Grade

**Pillbug Project or Hissing Cockroach Investigation**– Would your students enjoy a chance to be scientists? Students will use scientific skills of inquiring, observing, recording information and reporting while investigating live bugs.

**What is an Artifact?**– Students will make observations and measurements of “mystery” items brought into the room. They will use this information to develop a hypothesis about what the object is/how it is used. This will allow the students to understand the methods archaeologists use when researching artifacts. The students will also observe artifacts from native Iowa cultures and will learn the proper way to record found artifacts.

**Make Your Own Paper**– In this program, students will make paper while learning about recycling and different paper products.

**Wetland Wonders**– Students will learn about wetlands and some examples in Jackson County. Then students will make comparisons between unrelated objects through metaphors to learn the functions of a wetland.

**Alien Invaders** – Students will learn how invasive species can decrease biodiversity and learn how to identify some of the least wanted invasive species in Iowa.

**Deadly Links**– Students become hawks, shrews, and grasshoppers in a physically active game to learn how poisons enter the food chain. Students will determine consequences of this and describe regulations to attempt this from happening.

**Skulls**– Students will examine animal skulls and compare the teeth of carnivores, herbivores, and omnivores.

**Watersheds**—an Enviroscape model is used to learn about watersheds and how pollutants from a watershed enter our waterways.

## **Environmental Education Equipment**

Equipment is free to loan to schools and organized groups.

*\*Denotes equipment that requires our staff to be present. Otherwise, having our staff present is optional.*

**\*Canoeing/Kayaking** – 4th grade & up. Paddling provides access to great wildlife viewing and an escape from machines. Paddlers learn what team work and self reliance mean all in one activity.

**Fishing** – All ages. 25 fishing poles, 15 ice fishing poles, and 10 fly fishing rods.

**Snowshoeing** – 2nd grade & up. 25 sets of snowshoes available.

**Orienteering** (Map & Compass) - 4th grade & above. Using compasses, students learn about directions, map reading, and finding their way.

**\*GPS Orienteering** – 4th grade & up. Learn how to find your way using coordinates with a GPS. Learn about the sport of geocaching.

**\*Archery** – 4th grade & up. Covers archery history, safety, technique, equipment, mental concentration, core strengthening, physical fitness, and self-improvement.

**\*Atlats**—4th grade & up. Practice throwing spears with a ‘spear thrower’.

**IOWATER**— 2nd grade & up. Students will assess water quality of a body of water using chemical, biological, and habitat assessments.

**Tree Trunk**— a variety of activities and supplies for learning about trees. Compiled by ISU Extension.

**Park Packs**— a variety of activities, supplies, and games for learning about these topics:

- *Birds of Iowa*
- *Wetland Wonders*
- *Terrific Trees*
- *Mammals of Iowa*
- *Insect Safari*

**Explorer Packs**— a variety of activities and supplies to explore specific parks in the county

- Blackhawk Wildlife Area
- McNeil Nature Preserve
- Pine Valley Nature Area
- Maquoketa Caves State Park
- Cottonville Conservation Area

**Enviroscape**— hands-on and interactive way of teaching about watersheds, storm water, non point source pollution and pollution prevention.

**Stream Table**—Our 5 foot stream table model can be used to explore how streams and rivers form and flow. Terms such as erosion, deposition, entrainment, meanders, ephemeral, perennial, slope (or gradient), discharge, velocity (or speed), and gravity can be explored in a hands-on way.

**Kill-A-Watt**— assess how much electricity items use even when electronics are turned off.



Geocaching using GPS units with Easton Valley 4th graders around their schoolyard.



Bellevue 4th graders use the stream table to explore erosion and stream flows.

### **Sand Box Archeology Dig**

3rd Week in September at the Hurstville Interpretive Center.

Students will make observations, use their mapping skills, record information, classify objects, and develop theories. During the activity the students will learn how archaeologists find clues about our past, use those clues to learn more about how people lived, and apply what they've learned to some issues in our lives today.

Geared towards 4th grade students.

**Jackson  
County**   
**Conservation**

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