

Jackson County Conservation

Environmental Education Guide Grades K-5

Introduction

The Jackson County Conservation Board (JCCB) has 3 environmental education staff: Ann Burns, Jessica Wagner and Jennifer Meyer. Our EE staff are available to the citizens of Jackson County to educate and assist with natural resource related issues. Our staff are trained in First Aid and CPR.

Fees

Programs with JCCB are provided **free of charge** to the citizens of Jackson County, including the general public, schools, civic groups, youth groups, nursing homes, homeschoolers, etc... 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, after school programs, bus groups, and organizations that charge their participants a fee while utilizing our programs.

Educational Standards

We have a separate guide where we have matched our environmental education programs with Iowa CORE Standards. It is available online at www.jacksonccb.com/environmental_education.

Design your own Program

The programs listed in this guide are programs that we have that are ready to go. An environmental activity or event can be created to fit the needs of your curriculum and to achieve state academic 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.

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 for better success on the ITBS and NWEA MAP tests.

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 at 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: Hurstville Lime Kilns, Maquoketa Caves State Park, Bellevue State Park, Green Island, Eden Valley Refuge, and Millrock 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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Assistant Naturalist **Jennifer Meyer** jen@jacksonccb.com



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

Naturalist-Led Classroom Programs

Our EE staff is available to visit your classroom to present environmental education programs. **Programs listed in this guide are suggested for that grade but can be adapted to any age/grade/ability level.** We can also create a program that fits your curriculum.

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 its 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. The program is designed to encourage reading to “learn more about it”.

Snake Sense— Real snake items will be used to learn more about our reptile friends and their senses. *Live animals optional!*

Bats— Let's correct the many misconceptions people have about bats. Real bat items and a game help bring about a change in attitude and illustrate how important these animals really are.

Build a Bird Feeder— Students will make simple feeders to take home. An illustrated checklist will be provided to help them recognize 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 from “apartments” to “mobile 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.

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.

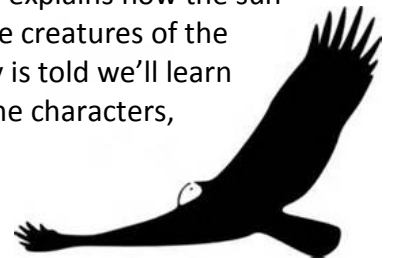
Swans by Chance— At one time, wild trumpeter swans numbered only about 69 birds in all the lower 48 states. Feathers, eggs, and other hands on materials help students “see” just how big these birds are. They will also learn how these magnificent birds are making a comeback in Iowa, with a lot of help from volunteers just like your students!



3rd Grade

Nature's Engineer— This is an upper elementary version of “The Pond Builder”. While we still look at adaptations, the program investigates how the beavers change the surrounding environment for other animals and humans.

How Grandmother Spider Stole the Sun— This Native American tale explains how the sun was brought to all the creatures of the earth. After the story is told we'll learn more about one of the characters, the Turkey Vulture.



3rd Grade (continued)

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 to learn about these great shaggy beasts. Also learn how bison and other animals of the prairie benefited each other.

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. They will also consider how those actions are steps a person might take today to address an issue.

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.

Monarchs in Mexico– Learn more about migrating animals and the challenges they face due to habitat issues. Also, learn more about the culture of the area around the monarch wintering grounds. Can be done in conjunction with monarch tagging (September) or anytime of the year.

5th Grade

Pillbug Project– Available Spring, Summer, Fall (warm weather). Would your students enjoy a chance to be scientists? Pillbugs make it easy! We’ll bring in some pillbugs, some ideas for questions and materials to help the students explore the world of pillbugs. Along the way they will use their scientific skills of inquiring, observing, recording information and reporting their findings to share their newfound knowledge of pillbugs.

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– Students will participate in the process of papermaking. At the conclusion of the activity, they will be able to state the importance of sorting and recycling paper products.

Wetland Wonders– During this “audience participation” slide show, students will learn some of the sounds and sights to be found in wetlands. Then students will make comparisons between unrelated objects through metaphors to learn the functions of a wetland.

National & State EE Curriculum

Our education staff has been trained and utilize information and activities from these guides:

- Project Wild & Aquatic Wild
- Project Wet
- Project Learning Tree
- NASP, National Archery in the Schools Program
- IOWATER
- Fish Iowa!
- Iowa DNR Boater Education
- Iowa DNR Hunter Education
- Iowa DNR Canoe Basics
- Iowa Nature Mapping
- Gray Wolves, Gray Matter
- Dig It! Soil Studies
- Waste Reduction: Addressing the Overlooked “R”
- Alliant Energy—Energy Wise
- Our Mississippi

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 participation (bird counts, monarch tagging), etc.. Contact us for more information about projects/events or to ask how we can help!

Programs for a specific time of year

Monarch Tagging

September; See 3rd grade program list

Pillbug Project

May—October; See 5th grade program list

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.

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 & above. 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. 40 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** – 6th grade & above. Learn how to find your way using coordinates with a GPS. Learn about the sport of geocaching.

***Archery** – 5th grade & above. Covers archery history, safety, technique, equipment, mental concentration, core strengthening, physical fitness, and self-improvement.

***Atlatis**—4th grade and above. Students will practice throwing spears with a ‘spear thrower’.

IOWATER— 5th grade & above. 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.

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



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