

Jackson County Conservation



Environmental Education Guide Grades K-12

Introduction

The Jackson County Conservation Board (JCCB) currently has 2 full time environmental educators, Ann Burns & Jessica Wagner, and 1 part time educator, Jen Meyer. Our EE staff are available to the citizens of Jackson County to educate and assist with natural resource related issues. Our staff is trained in First Aid and CPR.

Field Trips

Outdoor programs are truly the best way to learn and experience what our environment has to offer. Through these interactive 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 schoolyards or local parks. If transportation is available, there are a number of great destinations in Jackson County.



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 and 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 include: **Hurstville Lime Kilns, Maquoketa Caves, Bellevue State Park, Green Island, Eden Valley Refuge, and Millrock Schoolhouse.**

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 greatly appreciated. We do charge a nominal fee for tour groups, bus groups, and organizations that charge their participants a fee while utilizing our programs.

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

Educational Standards

We have a separate guide where we have matched our environmental education programs with Iowa CORE Curriculum. They are available by request.

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

EE Coordinator **Ann Burns** amburns29@jacksonccb.com OR Naturalist **Jess Wagner** jess@jacksonccb.com

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



Visit us online at www.jacksonccb.com or
www.MyCountyParks.com/County/Jackson.aspx



Phone: (563) 652-3783

Naturalist-Led Classroom Programs

Our EE staff is available to visit your classroom for environmental related programs. Our knowledgeable staff can present the programs listed in this guide or can work with teachers to present a program that best fits your curriculum that is related to conservation, natural resources, and the environment. There is a limit of 4 visits per school per year (separate grades should work together for scheduling programs on the same days to best utilize our time). **Programs listed in this guide are suggested for that grade but can be adapted to any age/grade/ability level.**

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, bird, 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 adaptations that help the beaver “do its job” in nature.

Turkey's Gift to the People– Through a story and “turkey stuff” students will learn more about this creature of our Iowa woodlands.



1st Grade

The First Dog– A story, wolf skin, and 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, chrysalides, insect homes, 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.

Swan 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 actually 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. We have a display featuring “nature's garbage man” and will discuss the importance of all creatures, no matter what their appearance.

3rd Grade (continued)

Nature Did It First– Students will examine similar functions of some man-made tools, and 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– This program explains the reasons behind the law that says your students can't bring a cardinal feather back from a field trip. Using excerpts from a children's book we will also discuss how concerned, committed citizens can make a difference. Feathers from the JCCB collection and other items will be used.

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– Why do we have white tail deer in Iowa, but not elk? What happened to the bison and black bear? Learn the history of wildlife and wildlife management in Iowa. Furs, antlers, and other items will give students a look at some of Iowa's wildlife from the past-present.

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– Pictures and actual museum mounts are used to explore how birds' beaks are adapted to enable them to feed on a variety of food sources. The students will also have a chance to try to "eat like a bird" to show what they have learned!

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 (Sept) or anytime of the year.

4th Grade (continued)

Who-o Goes There?– This program explains 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– (Available Spring & Fall) 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 new-found knowledge of pillbugs.

What is an Artifact?– Students will make observations and measurements of artifacts. This will allow the students to understand the methods archaeologists use when conducting a dig. 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. We will also discuss the services wetlands provide for wildlife and humans.

6th-8th Grade



Deadly Links– Students become hawks, shrews, and grasshoppers 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.

Chain Reactions– Students will recognize ways that threats to some species can be amplified by the interaction of unregulated wildlife trade with other ecological problems. Real confiscated artifacts will be used during the program.

**Short pretest given by teacher ahead of time.*

6th-8th Grade (continued)

Little Red Takes Many Paths - We will discuss how attitudes towards wolves have changed as scientists have learned more about their true role in nature. Real wolf items will be used.

Skulls- Students will examine animal skulls and compare the dental structure of carnivores, herbivores, and omnivores.

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

High School & College

We have no “ready to go program” for upper grade levels. We customize our programs to fit your current curriculum. Programs we have done in the past for include (but are not limited too):

- Invasive species (native vs. non-native vs. noxious)
- Careers in Conservation
- Skull anatomy and identification
- Animal Tracks, demonstrate adaptations
- Service learning projects

Iowa Core Standards

To help you meet your goals, we have aligned our programs listed in this guide with Iowa’s Core Standards. The information is provided in a separate document. Please contact us for a copy.

Design your own Program

The programs listed in this guide are programs that we have that are all 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 age, grade, and skill levels.

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

Jackson County Conservation
Hurstville Interpretive Center
18670 63rd Street...Maquoketa, IA
563-652-3783

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www.jacksonccb.com



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.

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**

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

Stream Table– shows how streams flow when water levels change; demonstrate bank erosion

Kill-A-Watt– assess how much electricity items use

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!