

Teacher Newsletter Fall 2011

HARTMAN RESERVE NATURE CENTER
BLACK HAWK COUNTY CONSERVATION BOARD

Field trip & Outreach Programs for Public Schools, Private Schools & Home Schools



As the leaves begin to turn, it must mean field trip season is quickly approaching! Here at Hartman Reserve Nature Center we have programs for all grade levels and abilities. Our programs can help to enhance courses such as math, science, social studies, writing, art, music, and physical education.

Check out our listing of Fall Favorites, Outreach Programs, Watershed & Water Quality Programs, Nature Tales On the Road, Rockin' in the Classroom, and Waste Trac Programs.

Fall Favorites

Apple Cider Pressing (All grades)

Each student needs to bring 2 apples. Topics covered include photosynthesis, pollination, and the life cycle of flowering plants. (IA Core Curriculum; Life Science, History, Reading)

Orienteering (4th-12th)

Teaches team building, problem solving, and map and compass skills while students search for orienteering flags. (IA Core Curriculum; Geometry & Measurement, Number/Operations, Data Analysis/Statistics/Probability, Geography)



Canoeing (5th-12th)

Teaches team building as students work together to paddle around one of Hartman Reserve's small lakes. Students receive instruction in water safety, paddling, and the history of canoes in North America. (IA Core Curriculum; History, Health Literacy, Behavioral sciences)

Nature Hikes (All grades)

Hikes can be themed to favor different topics such as ecology, wild flowers, animal habitats, prehistoric Iowa, and more! (IA Core Curriculum; Life Science, History, Health Literacy, Science as Inquiry, Behavioral sciences)

Animals of Black Hawk County (All grades)

Exploration time in exhibit room and the naturalist will get out a live turtle, snake, or salamander, and hands-on pelts. (IA Core Curriculum; Life Science, History, Science as Inquiry, Geography)

Snowshoeing (1st-12th)

A six inch base of snow is required. (IA Core Curriculum; Life Science, History, Health Literacy, Science as Inquiry, Behavioral sciences)

6 Steps to a Great Field Trip!

Schedule today!

1. Determine your curriculum or activity goals.
2. Identify your eligible field trip dates by visiting <https://sites.google.com/site/hartmanfieldtrips/>
3. **Contact Chris Anderson, Program Coordinator**, at chris.hrnc@gmail.com to reserve your program date and set up a teacher's meeting.
4. Complete the necessary paperwork required by your school.
5. Line up volunteers/parents to help chaperone.
6. Confirm your details or call with any questions.

*Your field trip includes a minimum of one Naturalist to guide you through your visit.

Hartman Reserve Nature Center

657 Reserve Dr.
Cedar Falls, IA 50613

(319) 277-2187

www.HartmanReserve.org

Outreach Programs

The staff of Hartman Reserve can also visit your classroom or a County Conservation Board area near your school if you are unable to make it to the nature center due to time or budget constraints. Visit the [Hartman Field Trip Site](#) for more information on any programs offered through Hartman Reserve Nature Center. Also keep in mind if there is a particular subject that you want to cover in your class that we do not currently have a program for, the Hartman staff would enjoy developing a "tailor-made" program!

Animals of Black Hawk County (All grades)

A naturalist will visit your class with a turtle, snake, or salamander, and Iowa wildlife pelts. (IA Core Curriculum; Life Science, History, Science as Inquiry, Geography)

Build a Tree (1st grade)

Students will act out the parts of a tree. Students will understand that plants have external features that help them thrive. (IA Core Curriculum; Life Science, Science as Inquiry)

Oh Deer! (3rd-6th)

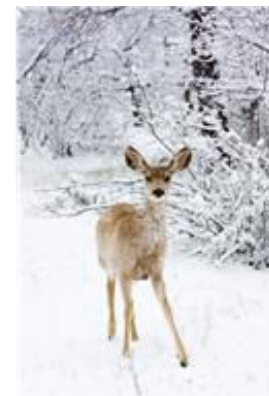
Students will understand plants and animals and their dependence on one another. (IA Core Curriculum; Life Science, History, Science as Inquiry, Geography)

Intro to Osprey (5th-12th)

Students will learn about osprey introduction to the Cedar Valley. (IA Core Curriculum; Life Science, History, Science as Inquiry, Geography)

Stream Table (4th-12th)

Students will experiment with hydrology and flood plains by trying to control one of nature's strongest forces; water! (IA Core Curriculum; Life Science, History, Science as Inquiry, Geography)



Citizen Science

Citizen Science programs will cover the Number & Operations, Data Analysis/Statistics/Probability, Geography, Life Science, Science as Inquiry, Writing, Essential Skills, 21st Century Skills, Viewing, Earth & Space, and Political Science sections of the Iowa Core Curriculum.

Mock Turkey Reintroduction (6th-12th)

During this program your students will assume the role of biologists, ecologists, politicians, game wardens, land managers, foresters, land owners, and geographers among others. They will work together using maps, literature, surveys, data collection, and personal opinions to decide if it would be possible to bring wild turkey back to Hartman Reserve. This program is unique because it can be done on site at Hartman Reserve, or in a classroom, media center, or library that has internet access. If you choose to do the Mock Turkey Reintroduction program you will be encouraged to have the students do a little homework in advance to learn about wild turkeys from literature or the internet.

Bluebird Nest Box Observation (1st-12th)

Unlike the Mock Turkey Reintroduction program, the Bluebird Nest Box Observation is the real deal! The data that is collected by your students will be entered into the online Nest Watch (<http://watch.birds.cornell.edu/nest/home/index>). Data sheets will be utilized by the Cornell Lab of Ornithology. Students will use their powers of observation and technology to monitor and record the goings on around the bluebird nest boxed located on one of the prairies that Black Hawk County Conservation Board manages.

Monarch Tagging (2nd-12th)

Students will learn about the Monarch's life cycle, tag Monarch butterflies, and learn how to follow their amazing trip to Mexico. All the data collected by your students will be entered onto Monarch Watch.org.



Fees:

\$25/class (up to 25 students) for 1-3 hours
\$35/class (up to 25 students) for fieldtrips over 3 hours
Multiple classes are welcome.

Due to the generous support of **Cedar Valley United Way**, the Nature Center has been able to keep program fees low.

Scholarships:

Call Hartman Reserve Nature Center to see if your school is eligible to receive a scholarship from the Field Trip Trust Fund. The FTF pays for half of the fieldtrip at the nature center.

Watershed and Water Quality Educational Programs (2nd– 5th grade)



The Black Hawk County Soil & Water Conservation District has partnered with Hartman Reserve Nature Center to bring Watershed and Water Quality educational programs to area schools for free. This grant allows a Hartman Naturalist to provide an educational program covering what a watershed is, how different land uses impact water quality and explain the water cycle and its importance in water quality. We are very flexible and able to adapt a lesson to suit your needs and requirements. We can mix and match aspects of each educational option in order to reach your goals for the lesson. The length of each program may vary depending on what is requested.

- Pick one or pick all three activities!
- There is **no cost to participate in these 3 activities**, as the instruction is covered by a grant.
- Your class can add one of these activities to your fieldtrip at the nature center or Hartman staff can visit your classroom for an outreach program.

To schedule a **free watershed & water quality program**, please contact **Chris Anderson, Program Coordinator**, at chris.hrnc@gmail.com, or **277-2187**.

Incredible Journey (2nd - 4th)

With the roll of the die, students simulate the movement of water through the water cycle. After a short PowerPoint about the water cycle, students will become a water molecule and then each take a unique journey through nine stations: clouds, plants, animals, rivers oceans, lakes, groundwater, soil, and glaciers. Students will fill out a journal worksheet as they travel, noting how they got from the clouds to the lake or from the glacier to the ocean. During wrap-up we will discuss how they as a water droplet could have become polluted and how water molecules can be cleaned through the water cycle. If time allows, the students can also create a water cycle bracelet. (45 min)

CPR: When a Watershed goes to the Doctor (4th - 5th)

Through the use of the *Enviroscape* landscape model, students will learn that a watershed is an area of land that drains into a specific body of water. Protecting watersheds is important because they support everything from the water we drink and use to grow food, to water for wildlife, industry and transportation. Every watershed is a little bit different, but as the old saying goes, we all live downstream! Using the landscape model, the students will learn that clean water doesn't just happen. Local watershed management teams use a variety of tools to protect local watersheds. To cure a sick watershed, managers use CPR- Conservation, Protection and Restoration. We will discuss point source and non-point source water pollution and discuss ways to reduce both. Some of the topics covered may include water conservation in the home, storm drain do's and don'ts, silt fences, buffer strips, rain gardens, native vegetation, and urban lawn chemicals. Students will take on the roles of fish biologist, farmer, company owner, forester, landowner, and elected official to see how their role play character might impact water quality, along with watershed protection tools they can use. (45 min)

Land Use and Water Quality Activity (4th - 5th)

Through the use of different types of sponges, and tiles we will discover how different land uses impact the amount of water and the quality of water that reaches our creeks and streams. Different stations will demonstrate how native prairie grasses, farm land, our backyards and urban development all impact water quality and water quantity issues. We will discuss the impacts of water pollution on living organisms and wildlife. (45 min)

Standards/Benchmarks:

- Develop the students basic understanding of the concept of a watershed
- Show how different land uses impact the quality of surface waters
- Discuss why water quality is important and what we can do to make a positive difference
- Describe the movement of water through a complete turn of the water cycle
- Describe how water exists in three states
- Analysis and discuss the causes of environmental pollutions as to the effect on living organisms
- Demonstrate the concept of infiltration and its uses in urban conservation
- Make inferences on the effect of pollution on living things



Hartman Reserve Nature Center Black Hawk County Conservation Board

Nature Tales on the Road

(PreK & K)



After three years of offering story time at the nature center, *Nature Tales* is hitting the road to bring the program to preschools, daycares and elementary schools!

The naturalist will read a nature-themed story, followed by an activity, game, hike, or craft. *Nature Tales* is ideal for PreK and Kindergarten. The following is a short list, the possibilities are endless! We can visit schools once a month, once each season, or as it fits into your curriculum. Program fees are \$25/class (programs run 30– 45 minutes).

Monarch Mania (Sept. only) After reading *Houdini the Amazing Caterpillar* or *Gotta Go, Gotta Go!* the students will learn about butterfly metamorphosis and migration! The class will tag a Monarch butterfly and release it at school.

Awesome Autumn Students will learn about the changes that take place in nature as summer turns into fall. After reading *Fletcher and the Falling Leaves* the naturalist will lead the students on a hike around the school grounds or nearby park. We'll discover the shapes and colors that are showcased in autumn and create an autumn palette of colors.

Animals in Disguise Who knew that looking like a bird dropping, matching the snow, or having spots could help animals survive? Your students— that's who! The naturalist will read *A Color of His Own*, followed by a short lesson on camouflage. Test the sharpness of your students eyes in the hidden animal game!

Snakes Alive Enjoy the story *Small Green Snake*, followed by a visit from a live snake! The kids will learn how a snake smells, eats, sheds, and moves.

Salamanders After we read *Salamander Room*, students will learn that the best home for wild animals is their natural habitat. After a simple discussion of survival and habitat, the students will get to meet a live salamander!

Tricky Tracks Who's been walking in the sand? Who left hoof prints in the snow? After this class your students will have a better idea of which animals left clues in their yard. The naturalist will read *Whose Tracks are These*, followed by a track activity (indoor & outdoor options).

To schedule *Nature Tales On the Road*, contact part-time naturalist,
Tammy Turner at tammy_hrnc@yahoo.com.



Rockin' in the Classroom

(K– 2nd)



Join us for storytelling and sing-a-longs in your classroom!! We will bring music and movement to your classroom and have fun learning about the forest and the critters that call it home. Join Hartman Reserve Nature Center Director, Ed Gruenwald and his musical accompaniment for a laugh-filled program. Ideal for students K- 2nd grade. Cost is \$35/class (45 min program). To schedule *Rockin' in the Classroom*, contact Ed Gruenwald at egruewald@gmail.com or (319) 277-2187.



Waste Trac Partnership (Recycling & Composting Activities)

(PreK– 12th)

Want to incorporate recycling or composting activities into your upcoming fieldtrip? Two recycling educators (Lyndsey Anderson & Tammy Turner) are available by request through Hartman Reserve to add waste reduction programs to your nature center visit. Through funding from the Black Hawk County Solid Waste Management Commission, the Waste Trac Education Team can lead an activity during your field trip. Perennial favorites include: *Composting with Redworms*, *Garbage Monster*, *Go Green Scavenger Hunt*, *Landfill Model*, and *Picnic Activity*. School groups visiting over the lunch hour can also request *Lunch Recycling* to teach students the various ways to minimize waste. A complete list of activities can be found at <http://www.wastetrac.org/education.html>.

