



Science- and Nature-based School Programs – PreK-4th

Designated as a Ramsar Wetland of International Importance, Cheyenne Bottoms provides an excellent opportunity to introduce more Place Based Education into your classrooms. The Kansas Wetlands Education Center is proud to provide high quality environmental education opportunities to students in Barton and surrounding counties. And it's FREE! An educator can visit your classroom, or you can bring students to the center on a field trip, still FREE! All our programs are designed to help your students meet the Next Generation Science Standards, all while getting students engaged in hands-on cross-curricular activities based on the natural wonders of our wetlands. Don't see what you need listed? We can work together to create something that meets your curriculum.

Contact – Mandy Kern, Program Specialist amkern2@fhsu.edu or call 1-877-243-9268 to schedule.

CLASSROOM PROGRAMS

Ava: A Year of Adventure in the Life of an American Avocet – We published a children's book about the bird on the logo of the Kansas Wetlands Education Center in 2021. The book showcases wetlands and the wildlife of Cheyenne Bottoms. After reading the story, students will view real bird nest examples and work as a team to engineer their own nest with the materials provided. Supplemental activities are also available on our website.

Batty About Bats – Ever wonder how bats find their way in the dark? We'll reveal their superpower: echolocation! Students will also explore the mist net, where they'll encounter "captured" bat models. Armed with scales and measuring tapes, they'll identify bat species by analyzing weight and forearm length. This program focuses on bats' special adaptations.

Bills and Feet – Students will explore the fascinating adaptations of birds' beaks and feet. They'll learn how these specialized features are perfectly matched to the food each bird consumes. Students discover the incredible diversity of bird beaks and feet and understand their role in survival. They'll participate in an interactive activity matching "tools" to specific bird diets.

Cheyenne Bottoms' Spring Chorus – Students will learn about the stages of frog metamorphosis, including egg deposition, tadpole development, and the transition to adult frogs. Students explore how, why, and where frogs and toads call. They'll even hear actual frog calls! Students participate in interactive activities to replicate frog calls, enhancing their understanding of these vocal amphibians as they become part of the chorus. If available, students get up close with live amphibians.

Cottonwood: Tree of the Great Plains – Students will explore how the Kansas state tree, the Cottonwood, survives in the challenging environment of the dry and windy Great Plains. We will discover specific adaptations that allow cottonwoods to thrive despite harsh conditions. We will examine tree cookies (slices of branches or trunks) to explore growth patterns.

Create a Bird – After discussing bird adaptations and viewing mounts, students can create their own imaginary bird and describe its unique features. They can consider aspects like beak shape, wing type, coloration, and habitat preferences. Students are encouraged to use their creativity and imagination as they design their custom bird species!

Extraordinary Eggs – Students explore the diverse roles of eggs in the lives of birds, reptiles, insects, and amphibians. They'll discover how these remarkable structures support reproduction and survival for many critters who live in wetland habitats. Egg replicas will be matched to the bird and following an egg dissection, students will test just how strong an egg can be!

Fantastic Feathers – Discover the magic of bird feathers in our engaging program! Educators and students will explore feather types, functions, and adaptations. Plus, get hands-on with a fun feather-matching activity to connect feathers to their feathered owners.

Making Tracks – In this program, students learn to identify animals by the tracks they leave in earth and snow. The hands-on activities include tracking exercises and creating plaster track casts for classroom exploration. Animal pelts will be used to deepen their understanding of animal adaptations. For an immersive experience, consider combining this program with a hike to find and identify tracks in their natural habitat.

Mammals R Us – Students investigate the unique features that distinguish mammals from other vertebrates (fish, amphibians, reptiles, and birds). Through live animal observations, mounts, and skins, we explore mammalian adaptations, including tooth function and structure.

Nature is an Artist – After reading the story, Nature is an Artist, and meeting our painted turtle, students will travel to 4 stations exploring the colorful world of Cheyenne Bottoms. They will make thumb print bees, leaf prints, a wetland collage, and paint with mealworms.

Night Creatures – Cheyenne Bottoms comes alive at night! From bats and owls to toads and raccoons, each can make a noise that could surprise any visitor. Hear the sounds and interact with these nocturnal critters.

Pollinators: Plants' Best Friends – Students discover the vital connection between plants and pollinators. By spinning the pollinator wheel, students will match the pollinator (such as bees, butterflies, bats, and hummingbirds) to an essential item it made possible. Selected students will dress up as pollinators and help turn flowers into fruit.

Sensational Seeds – Students delve into the fascinating world of seeds and their survival strategies. They'll explore different mechanisms that ensure seeds endure harsh conditions, spread throughout their environment, and germinate successfully. Through hands-on activities and dissection, they'll uncover the mysteries hidden within seeds.

The Hike – After reading the story, *The Hike*, students will get their own nature journals and travel through 4 stations sketching what they find. Learn what adventures you can find in your own backyard by flipping rocks and identifying the creatures you might find! From snakes to scorpions, and bill bugs to dragonfly larva, there is a whole world of critters to discover.

Water Cycle – Students investigate the natural water cycle through engaging activities. They'll model and explore how water moves between solid, liquid, and gaseous states, emphasizing the sun's role and the importance of water conservation. Special emphasis will be placed on the functions of wetlands within the water cycle.

Wetland Plants – Students explore the fascinating world of wetland plants and their unique adaptations. Through hands-on activities and observations, they'll discover the importance of wetlands in supporting diverse ecosystems. We will look at common wetland plants like cattails and bulrushes and these plants' roles within wetland habitats like Cheyenne Bottoms.

Whooping Cranes – As the tallest and rarest bird in North America, it is always a treat to see them at Cheyenne Bottoms during migration. Students will learn about the migratory path of the whooping crane and the difficulties they face through an interactive game. In efforts to save the species, scientists hand-raise colts (Whooping Crane chicks) and to hide their human identities, dress as the bird. Students will do the same to "feed" young colts.

SEASONAL PROGRAMS

A Butterfly's Journal – Students will learn about the stages of a Monarch butterfly's life, from egg to adult, and gain insights into metamorphosis. We'll trace the Monarch's epic migration route, discussing the challenges it faces and the remarkable adaptations that allow it to travel thousands of miles. Students can participate in a hands-on tagging activity, either during a field trip to KVEC or as a classroom demonstration. Tagging and live metamorphic stages are available from August through early October.

Halloween Critters – In this program, we debunk the myths surrounding bats, owls, spiders, and snakes. When possible, we'll introduce you to live animals, up close and personal. Get ready for a spine-tingling adventure with our creepy critters!

Jr Duck Stamp – Great for an art course! Create a unique entry for the Kansas Junior Duck Stamp Art Contest. Explore aquatic habitats through detailed mounts, pictures or videos of the waterfowl, and a tutorial on how to draw. Youth will be engaged and inspired to create artwork and spark an interest in habitat conservation. Artwork is due March 15 each year.

Kansas Day Symbols – This program celebrates the state's iconic animal and plant symbols and is perfect for the month of January! Explore the Kansas state symbols, from the mighty American bison to the tiny European honeybee. Students will feel bison hides, encounter live salamanders and turtles, and even see the world through a bee's eyes.

Turkey Talk – Discover the fascinating reasons why Benjamin Franklin championed the turkey as our national bird. Students will delve into turkey calls, examine turkey beards, and gain a newfound appreciation for this remarkable and wary feathered friend.

FIELD TRIP PROGRAMS

Pair any of the classroom programs with an outdoor adventure for a full educational experience. Field trips can also include time for exhibit hall exploration and interaction with our classroom ambassador animals.

Graph-an-Animal – Students will become part of the Cheyenne Bottoms food web, learning about carnivores, herbivores, and omnivores. Using observation skills, students will use our classroom ambassador animals to determine how scientists classify animals. Collecting weight, length, width, and physical descriptions of an animal can help determine specific species.

Insect Search – With nets and containers in hand, students search out invertebrates living along the nature trail. Our goal? To uncover the hidden world of invertebrates! Using magnifiers and microscopes, we'll dive deep into the intricate details to unravel the mysteries of these tiny creatures.

Nature Hike – To stretch in preparation for the ½ mile hike on a paved surface, students will participate in wetlands yoga, mimicking the movements of common Cheyenne Bottoms critters. Using their senses, students will look for evidence of animal activity along the trail. We will stop to listen to common sounds, and we will explore and examine unique findings on the trail with magna viewers.

The Case of the Hungry Owl – In this engaging program, students become wildlife detectives as they unravel the mystery of the barn owls' diets. We'll dissect owl pellets to identify the victims consumed by barn owls that live in Cheyenne Bottoms.

Wetland Study – Students observe wetland creatures and plants, then collect water samples for classroom microscopy. The program can also cover water quality indicators, and students have access to boots and waders for an immersive experience.