

EDUCATION • WILDLIFE • FUN

**7th–12th**  
**SCHOOL PROGRAMS**

The Kansas Wetlands Education Center is proud to provide high quality environmental education opportunities to students in our area. Have one of our educators visit your classroom for an exciting change of pace, it's free to facilities within 75 miles of the KWEC. You can also bring your students on a field trip to connect with nature, meet fascinating critters, and get hands on with the wetland. There's no charge when you come to us! All of our programs are designed to help your students meet the Next Gen Science Standards while getting them excited about nature. To schedule a program, contact Jean Aycock by phone at 1-877-243-9268 or email at [jeaycock@fhsu.edu](mailto:jeaycock@fhsu.edu).

**Contact:**

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### **Middle School (7th and 8th Grade) Classroom Programs**

***Oh, Deer! What's the Capacity?*** What do wildlife need from a habitat? Are populations ever truly "in balance" in nature? What is "carrying capacity" all about? Students will answer these questions by portraying deer and habitat components in a fun physical activity, then graphing the results. Room to move is a must for this activity!

***Hey, Good Buddy!*** How do species get along? Students explore the concepts of symbiosis with a card game, while learning to identify animals that live in different types of symbiotic relationships and some of the partnerships that occur at Cheyenne Bottoms.

***BFFs Forever?*** What happens to a species that goes through a genetic bottleneck? How does a species survive nature's variations? Students will learn about the Black-footed Ferret's place on the Kansas prairies while trying to keep a BFF population alive through a series of environmental challenges.

***Food Chains in Action.*** Students portray a variety of wildlife in an example food chain, but watch out! You've got to work to find food and water, but avoid your predators! This game of tag demonstrates energy transfer in an ecosystem, trophic levels, and how contaminants can move up a food chain. Room to move is a must!

***Amphibians and the Environment.*** Get your students curious about how changes in the environment can effect all kinds of critters. We'll start with an introduction to amphibian ecology, and finish with a fascinating look at why amphibians' special adaptations make them particularly vulnerable.

***Kansas ECO-MEET Prep.*** Not sure where to start when preparing for the Kansas ECO-MEET? Let us help you out! We can help your students get ready for the table tests with an introduction to each year's species and habitat topics.

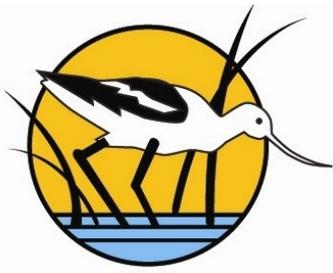
### **Middle School (7th and 8th Grade) Field Trip Programs**

***An Oily Issue.*** Oil spills are everybody's problem, but wildlife is usually the loser. Where does oil in the environment come from? How does oil affect birds? Students will conduct a series of experiments to determine what oil does to a bird's feathers and eggs.

***What's in the Water?*** One of the most interesting ways scientists assess water quality is with aquatic invertebrates. Students will survey the KWEC pond for inverts, and analyze their findings. Be prepared to get muddy!

***A Wetland By Any Other Name...*** What's a wetland really all about? Students will exercise their language skills to describe a wetland's characteristics and importance using metaphors (and some really strange objects!)

***Knowing Nature.*** Students join an educator on a nature walk, observing wildlife, learning to identify plants, and



## High School (9th through 12th) Classroom Programs

Our high school programming is organized into tracks that follow common high school courses. This helps to make sure that students don't see the same program year after year, but always get a fresh and exciting program that reinforces their classroom experience.

### Anatomy and Physiology Track

***Anatomy of Flight.*** Comparative anatomy provides some of the coolest, “Aha!” moments in science. Students will compare the bones and musculature of human, bird, and bat forelimbs. This program includes live animals, an Eastern Screech Owl and a Big Brown Bat, as well as a hands on look at real bird wings. *(LS4-1)*

***Glorious Gizzards.*** How do bird stomachs differ from human stomachs? Students will examine a real bird gizzard, discover why some birds swallow stones to aid digestion, and experiment with their own mock gizzards! *(LS1-2)*

### Biology Track

***Ups and Downs in the Wild.*** What limits the growth of wildlife populations? Through a resource gathering activity, students will investigate the limiting factors that affect White-tailed Deer. Students will also flex their math skills by examining the difference between exponential and linear growth rates in Wild Turkey populations.

***Find the Balance.*** What on earth is dynamic equilibrium? Students will explore the ups and downs of predator and prey populations by modeling the interactions of raptors and rodents. This program includes a chance for students to get up close and meet an American Kestrel.

***Behave Yourself!*** Animal behavior is a complex issue! Why do critters act the way they do? In this activity, students will get up and move to simulate the behavior of predators and prey—room to move is a must!

***Invaders!*** Invasive species are a huge problem for our native ecosystems. An invasive species takes up space and resources needed by native species—in this activity, students will model the interactions of invasive species and native species, then evaluate invasive species control methods in Kansas.

***Go With the Flow.*** Energy in an ecosystem is a valuable commodity. In this activity, students simulate energy production and transfer through an “ecosystem assembly line” and compare energy transfer and the recycling of nutrients within an ecosystem's trophic levels.

***Taxonomy Series.*** Classification doesn't have to be boring! This series focuses on the defining characteristics of the vertebrate classes, including fishes, amphibians, reptiles, mammals, and birds. From osmoregulation in fish to placental mammals, we'll take a look at the most interesting features of each group and include live examples whenever possible! This series can be condensed or extended from three to five programs to fit your classroom scheduling needs.

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### Field Trip Programs

***Habitat Investigation.*** What is a habitat? What do animals need from their habitat? Do all habitats look alike? Students will answer these questions and more in this outdoor habitat investigation.

***A Day in the Life of a Field Biologist.*** Just what do biologists *do* all day? Students will be introduced to some of the exciting career options in wildlife biology, and get to try out several data collection techniques from bird song surveys to vegetation sampling.

***What's Your Function?*** What is a wetland anyway? Students will investigate how wetlands affect the movement of water over land, and the importance of wetlands in our landscapes.

***What's in Your Water?*** Water quality can mean different things to different people. In this hands on activity, we'll examine the wide variety of aquatic macroinvertebrates in the KWEC pond, and learn how scientists can use these little critters as water quality indicators! Prepare to get wet!

***Aquatic Survivors.*** Natural water bodies can be extremely variable: dissolved oxygen, nutrients, temperature, turbidity—all these things affect the life forms living there. Students will learn the difference between oligotrophic and eutrophic aquatic habitats, and bring water samples back to the classroom for further study and experimentation.