

This is an excerpt from a set of lesson plans I wrote for The Field Museum's hands-on discovery "Harris Loan Program." Though the focus is on the birds of Audubon, Lewis and Clark, I include these to give you an example of how you can blend field ecology and creative writing.

BIRD IS THE WORD

Background Information

Meriwether Lewis was the first to scientifically describe more than 50 birds new to science from the broad-winged hummingbird to the sage grouse. Lewis Woodpecker and Clark's Nutcracker are named for the explorers. He collected study skins and wrote extensive natural histories for many of these birds. John James Audubon and Alexander Wilson used these study skins to paint portraits of the birds of North America.

This lesson builds on some of the skills introduced in the previous lesson, deepening students' ability to observe and write more fluently. If field ecology is like short story form, then the skills of a poet are very similar to the skills of a scientist. This is a scientific vocabulary, but poets are observant, collect and analyze data, ask difficult questions and look for answers. Using a poet's vocabulary, scientist use metaphor and analogy to explain complex concepts. This series of lessons will help students learn observation through drawing, poetry and creative writing. Students will also learn to write solid expository essays.

Materials: Wilderness Journals, Pen and Paper
Bird Exhibit Cases from the Harris Loan Center

Objectives

- ☼ Students will improve their observation skills
- ☼ They will learn to write more fluently
- ☼ They will learn to think like a poet/scientist: observe, collect and analyze data, ask difficult questions and look for answers.
- ☼ Students will use metaphor and analogy to explain complex concepts.
- ☼ Students learn observation through drawing, poetry and creative writing.
- ☼ Students will also learn to write solid expository essays.

Instructional Procedures

In this simple, four step process students will draw their favorite bird, write several poems, write a story about a day in the life of their bird and write an essay about that bird.

STEP 1 First, ask students: What is your favorite bird? Give them a large sheet of paper and invite them to draw the bird true to life. A couple of exhibit cases from The Field Museum's Harris Loan Center could both inspire and instruct student's scientific accuracy.

Add a nest, eggs, and a picture of its young. Highlight the differences between male and female birds of this species. Consider this sketch a rough draft. Look at photographs and other paintings of your favorite bird. On a large sheet of paper draw a life-size image of the bird in its natural habitat.

STEP 2 Through Socratic questioning, discuss what makes a poem: Alliteration, Rhyme, Rhythm, Repetition, and Meter; Imagery, Emotions, and Philosophy; Similes, Metaphors, Analogies, Symbolic Language, and Personification.

Next, ask students 100 questions about their bird. Ask the questions rapid fire, *often repeating the question with a different vocabulary to encourage thinking*. Tell the students they

do not need to answer all of the questions, but to answer as many as they can. The truth is there are really only three basic questions:

What does my favorite bird look like?

Where does it live?

What does it do?

Encourage poetic language and short descriptive phrases. Challenge students to brainstorm on paper as many answers to these questions as they can:

What does it look like? How big or little is the bird? Compare it to something. Make a list of all of the bird's parts. Describe all of the parts of the bird and how it uses these parts comparing them to tools. How does it use its beak, its tail, its wings? How does it move? Use all of your senses: What are the colors you see? What are the textures you would feel? What are the sounds you might hear? What smells or feelings might you imagine? What are the different colors of the male and female in this species?

Where does it live? Where does it build its nest? How does it build its nest? What does it build its nest out of? What habitat or ecosystem does it live in? What plants and animals are its neighbors? What is the weather like? What part of the world does it live in? Where does it feed? Where does it get water? Where does it hide? Where does it sleep? If it migrates, what does it see along the way?

What does it do? Use a lot of verbs! How does it feed? How does it migrate? How does it attract a mate? How does it tend to its nest? How does it raise its young? What are its enemies? How does it survive? What does it do in each season? What is it good at doing; what is its role in the ecosystem? If it could talk what might it say? Actually it does talk, not English, but use its language in your poem and then add an English translation. How does it feel about the things going on around it? What can you learn from this bird? How can its wisdom help us to be better animals?

For the questions they cannot answer, students can either: look them up in a book, surf the web, or better yet go outside and observe the bird to learn directly from their favorite bird!

Their answers to these questions with a little bit of editing can be turned into an instant poem. If they simply rearrange the answers to the questions, add water and stir, shazam, they have a poem. Their answer sheet with very little rewriting can be turned into poetry.

At this point teachers may want to read the Whooping Crane poems at the end of this lesson.

Next, ask them to choose their three favorite lines and make a haiku. Remember that haiku are about one intense moment, using present tense language, and they always have a tension between two yin-yang images or ideas.

For a third poem from the list of facts, students can write the name of their bird in big bold letters going down the side of their paper to make an acrostic poem. Using the answers to their questions, they can look for words that begin with the letters in the name of their bird. Remember that acrostic poems are not just a list of descriptive words; they can also describe a scene or tell a story.

On page 14 are three poems about a Whooping Crane written using this lesson plan. Students can send their poems to foxtales@foxtalesint.com and they might be posted so bird enthusiast the world over can enjoy them. (Please visit www.foxtalesint.com for more information about poetic forms.)

STEP 3 Next, students can use their poem as an outline for a story about their favorite bird. Discuss the ingredients for a good story? Characters, setting and plot. The bird is the main character. The habitat is the setting. And the bird's behavior is the plot. Going back to the Crane poems, teachers can discuss the outline for a story at the end of these lessons. Encourage them to go back and look at the initial three questions:

What does my favorite bird look like?	CHARACTER
Where does it live?	SETTING
What does it do?	PLOT

They have already answered these questions, so they already have an outline for their story! Students can take each line or stanza from their poem and make them into scenes or paragraphs. Remind them that a good story also has an engaging beginning, an exciting middle and a satisfying end.

Ask: Where does your story begin? Maybe they could start by describing what your bird looks like and where it lives. What happens first? Then what happens? Then what happens? What is the exciting middle? How does the story end?

A story also needs a problem and a solution. What problems does the bird face? This could be the exciting middle of the story! How does it survive; how does it solve this problem? This is the satisfying end of the story.

Sometimes it is easier to write a story if they first close their eyes and daydream. Invite students to close their eyes and imagine that they are the bird. Imagine they are flying or hunting for food. Imagine that they run into a problem. Ask them to use all of their senses as they imagine. How do they feel about the problem? How does this bird get out of the jam? How do they feel at the end? What did they learn from all of this? After they daydream, they may want to make a quick outline of their story.

Another strategy that is often helpful is to tell the story before it is written. Working with a partner, invite students to take turns telling their stories after their daydream.

Give them time to make a rough draft. Ask them to go back over their story and look for places to add some drama, some action, more excitement or more detail. At this point you might allow time for them to visit the library or surf the internet to do some research about the bird. Teachers can offer two grades for one assignment; students can earn an A in Language Arts for a good story and an A in science for lots of good facts. Allow time the next day for students to rewrite, rethink, rework, recreate, revise, re-envision their story. After rewriting and editing, students can send their story to foxtales@foxtalesint.com and it might be posted on the Fox Tales web page.

STEP 4 Good essays tell a story. A good essay uses poetic language, imagery and metaphor to explain complicated ideas. Using phrases from their poem and whole sentences from their story, ask students to write an essay about their bird. The main difference between a story and an essay is the tone. Whereas a story is written to entertain, an essay is written to inform. (Actually, a good essay is entertaining and a good story can be informative... which is exactly the point of this exercise!)

The haiku could be the theme of your essay. The longer poem is the outline. The story provides a sequence of events. All they have to do is change the tone, re-work the opening and closing to create a strong essay about their favorite bird.

Ask students to discuss this question: What is the theme of your essay?

Using the standard rubric for expository writing students can write an opening sentence that introduces your main point. Give two or three sentences that elaborate on that point. Write three paragraphs that go into more detail about the bird. Their second paragraph could explain the bird itself. The third paragraph could be about the bird's relationship to its habitat. And the fourth paragraph could be about the bird's behavior focusing on its role in the ecosystem. Why is this bird important? Their closing paragraph should re-state your opening point in new words.

Shazam! Using sentences from their poem and their story, they not only have one of the best essays they have ever written, it is also probably one of the easiest! Please encourage students to send all four steps, their picture, poem, story and essay, to foxtales@foxtalesint.com.

Follow-up Activities

Their large pictures could be framed with construction paper and the poems mounted in the corner of the frame for an interdisciplinary art exhibit.

With The Field Museum murals in mind, students could work in small groups to create a large mural of their habitat with each student adding their bird to their mural. Wetland birds could work together, forest birds could work together, etc.

If students are drawing waterfowl, they can enter into the State and National Jr. Duck Stamp Competition, with the possibility of winning a trip to Washington D.C. for the awards banquet. For more information, including a 60 page booklet of lesson plans and contest rules please visit duckstamps.fws.gov

If students have chosen an endangered or threatened bird species or a bird whose habitat is threatened, their expository essay, poem and story could be the foundation for a persuasive essay. This editorial could be sent to public officials or the press as a guest editorial. Offer extra credit to any student who gets published or a response from their elected official.

For older students, a study of the life and work of John James Audubon might prove inspiring. For every one of the 435 birds that Audubon painted he wrote a short essay about the life and habits of the species based on his own observations. Read aloud excerpts from Audubon's Bird Biographies. Excerpts from "The Passenger Pigeon," "The White Headed Eagle," or "The Black Vulture or Carrion Crow" are recommended. In all three essays it is easy to see that the facts were collected first hand from extensive hours of field observation. You can discuss with your students the principals of field ecology and the scientific method embedded in these essays. Invite your students to choose a bird that lives in their neighborhood, a species that they see often. They can take field notes on its behavior and use this information to write a biography of their favorite bird.

This same series of lesson plans has been used with mammals, insects, dinosaurs, trees, flowers, rocks and minerals.

With approximately five minutes for each of the four steps in this lesson plan, it can be easily condensed into a face-paced set of lessons to be performed in the Field Guide to North American Birds or Wilderness Walk of The Field Museum. It works best if they have already walked through the set of lesson plans in class before they come on their Field trip.

For a more in-depth study of bird classification, The Harris Loan Program has several exhibit cases with different species of one bird family, birds with their young, and male and female birds in the same exhibit case.

Here are three poems, and an outline for a story, which is also the outline for an essay:

WHOOPING CRANE

Poetry by Brian "Fox" Ellis

Long legs for stalking in the shallow swamp
A long neck and wings
 for long distant aerodynamic flight
A long beak for snatching up frogs and fish,
 snakes and mice

Whoooooop! Whoop! Whoooooop!
I am the whooping crane!

I dance when the earth rises,
 when the snow melt floods the rising creek.
I dance when the pasque flower pushes up through the springing earth.
I dance when the sun rises,
 when the flocks of birds rise from the trees,
 rising from the everglades to the great north woods.
I dance in the tall prairie grasses,
 my head bobbing like cattails in a spring storm
 wings extended, long legs strutting,
I dance!

THE CRANE'S MIGRATION (An Outline for a Story)

The story opens with a description of the crane's dance, raising young and teaching the young to fly.

The heart of the story is the long trip south, soaring over America and the perils they encounter along the way. The parent bird teaches the young which way to fly, what to look for in a place to rest, how to keep watch at night, narrowly averting a bobcat attack, and then they fly back to the north.

The story ends with them returning safely to their nesting grounds, where the story begins again.

THE ENDANGERED WHOOPING CRANE

(An Outline for an Essay)

The opening paragraph describes the beauty and importance of the crane and its relationship to its environment.

The heart of the essay is the need to protect wetlands, the need to protect habitat, in order to protect the bird. The emphasis is on the idea that migratory birds highlight the need to protect habitat across the country so they have safe places to rest along the way.

The essay ends with a description of the nesting grounds and hope that the young being born this year will have a home for the future.

Crane dance

Red head and long tail feathers

A fancy dancer to rival the Lakota

Nearer and nearer his mate, clacking beaks together

Entangled in the dance of love, crane dance

CRANE HAIKU

At first light, a crane
lifts its long legs, wings stretch
singing up the sun

