



HAWKQUEST®

Environmental Education using Live Birds of Prey

Thank you to Xcel Energy Foundation and their Environmental Partnership Program

Nature Detective — Journaling 101

(Suitable for grades K-12)

OBJECTIVE

To experience wildlife by being a silent observer and artist.

TEACHER BACKGROUND

Nature journaling and art have played an important role in history by inspiring interest in wild living places and animals. Early explorers often were accompanied by artists to journal the newly discovered flora and fauna of the new worlds. Scientists, like Darwin, used nature journaling to record observations. Early western art, including work of Thomas Moran and Alfred Bierstadt, helped to build public support to preserve great natural wonders like Yellowstone and Yosemite, now National Parks.

NATURE JOURNALING

Each spring, raptors (birds of prey) nest in one of Xcel Energy's nesting boxes mounted on its power stations. Students have a unique opportunity to observe these animals using Xcel Energy's hidden Bird Cams. Ask students to observe the raptors at one or at all the Xcel Energy's Bird



Cam sites. Nature journaling is a lesson in observation. Explain to the students that they do not have to be an artist. Many scientists use quick sketches and labels to record their observations.

Journaling can range from simple drawings and sketches to detailed labels and comments. Make sure each journal page includes date of observation and location (site of nesting box).

WARM-UP GAME - LESSON IN OBSERVATION

No two people see events exactly alike. That is why nature journaling is a unique, personal experience. To prove this, arrange five objects in a covered box for each group of students. Have one student share what is in the box to the group for 30 seconds. Cover the box. The observers will then record the types and number of items in the box, their placement and any other observations. Have the students compare notes. Rearrange the items and try this again. Add more objects to increase the level of difficulty.

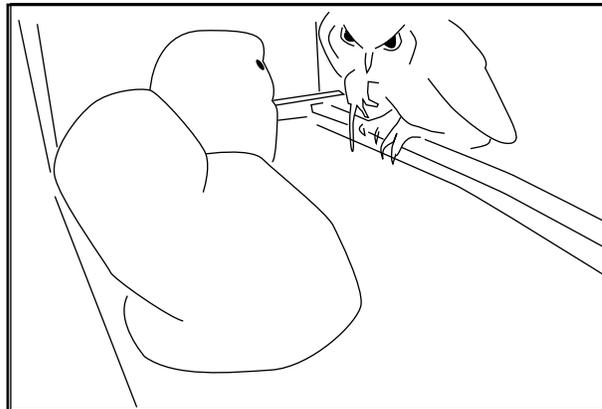
JOURNAL IDEAS

Primary (K-2) and Elementary (3-5)

Younger students can create one journal page and assemble their work into a class book. Help the class identify the raptor in the nesting box. Sketching can include drawing the whole bird or simply a beak, an eye or an egg. For younger students, have them record the colors of the birds. Have students label their sketches and write words or paragraphs describing the inside of the nesting box and/or behavior of the birds. What are the birds doing -- sleeping, eating, playing, fighting?

Middle and High School (6-12)

Older students can create covers and produce several journal pages to create their personalized journal. Have students record questions, thoughts and/or observations. Note the physical description of the birds and any observed behaviors. Describe eating and grooming etiquette among raptors. Describe what they eat and how they eat -- create a bird menu. Describe in detail the environment in the nesting box -- nesting materials, cleanliness, occupants. How does it compare to the students' room?



**There appears to be two chicks in the nesting box.
The mother Great Horned Owl returns with a mouse.**



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