



Name: _____

Everglades Wildlife Watch: Observing the Bald Eagle

The Bald Eagle was selected as the national bird of the United States in 1782 and this iconic bird of prey lives in the Florida Everglades.

Directions: In this lesson, students will observe through a live webcam what is happening at any given time in an active Bald Eagle nest located in southwestern Florida. Over the course of three days, they will use an observation journal with guiding questions to make qualitative observations about these Bald Eagles and their activities and record their data using an ethogram chart.

Encourage your students to describe what they see in detail; this will help them identify key characteristics of their focus of study and make more knowledgeable inferences.

[Everglades Wildlife Watch: Observing the Bald Eagle Lesson Plan](#) (attached below)

[Student Page and Ethogram Chart](#) (attached below)

[Bald Eagle Observation Journal](#) (attached below)

Additional resources in case live webcam is down or there are no birds present:

<https://www.youtube.com/watch?v=k2m-53wWia4>

<https://www.youtube.com/watch?v=HTh3BR6dfeg>

<https://www.youtube.com/watch?v=WoK-k4hGLM>

Standards: SC.1.L.14.1, SC.3.N.1.3, SC.3.N.1.6, SC.4.N.1.6, SC.912.N.1.6

Everglades Literacy Lesson Connections:

Grade 3, Lesson 1 – Hurry for a Habitat

<https://www.evergladesliteracy.org/third-grade>

-Students will use a relay race activity to reinforce knowledge learned in Lesson 1 and Lesson 2 (Everglades habitats, animals, and plants).

Grades 9-12 Adaptations in Everglades Ecosystems, Lesson 2: Design a Perfect Beast

<https://www.evergladesliteracy.org/9th-12th-amazing-adaptations>

-Students become “bioengineers” by engineering an animal that is adapted to a specific Everglades ecosystem, creating “perfect beast.”



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Lesson Summary: In this lesson, students will observe through a live webcam what is happening at any given time in an active Bald Eagle nest located in southwestern Florida. Over the course of three days, they will use an observation journal with guiding questions to make qualitative observations about these Bald Eagles and their activities.

Background Information:

Over 350 species of birds reside in the Florida Everglades, ranging from hawks and owls to a great variety of wading birds and more. The Everglades serves an ideal location for these species due to the shallow water providing easy access to fish and insects. Bird species of the Everglades fall into three categories: wading birds, land birds, and birds of prey. An iconic bird of prey is the Bald Eagle.

The Bald Eagle can be found in a variety of Everglades habitats from the coastal mangrove swamps to the freshwater wetlands and even the pinelands.

Once a plentiful species, the Bald Eagle was selected as the national bird of the United States in 1782, however, the population of this magnificent bird dropped drastically in the 20th century due to the use of pesticides, overhunting, and pollution of rivers. However, a successful recovery plan that banned the pesticide DDT and conservation actions taken by the public helped the Bald Eagle significantly and they are no longer listed under the Endangered Species Act. In Florida, they are making a comeback in the Everglades.

In this lesson, your students will practice their observational skills by visiting a live webcam of an active Bald Eagle nest located in southwestern Florida. Making careful and detailed observations is the most fundamental science process skill. The basis of science is observation, and meticulous observations are critical. Anything you see, hear, smell, taste, or touch is an observation. Good observation skills require students to sharpen their five senses to inform themselves about the world around them. Over time, building on regular observations, you can develop a clear picture of what is happening around you, even if those changes are gradual. Then, you can formulate actions to correct the problem. Observation requires students to note the “big picture” and the fine details. Developing good observation skills takes practice. Encourage your students to describe what they see in detail; this will help them identify key characteristics of their focus of study and make more knowledgeable inferences.

Using live webcams make virtual field studies possible. This particular webcam has been monitored for eight years and counting. The 2019-2020 season (January-May) marked the eighth season that this webcam has provided the live look into this Southwest Florida Bald Eagle nest. During the 2019-2020 season, viewers can observe all the action from four cameras that stream the birds 24/7 live directly to this site: <https://www.dickpritchettrealestate.com/eagle-feed.html>

Bald Eagle Webcam Information Retrieved From the Website:

<https://www.dickpritchettrealestate.com/eagle-feed.html>

Camera #1 is positioned six feet above the Bald Eagle nesting tree and is equipped with night vision or infrared light, which emits no actual light. Nor does it make any noise. The Bald Eagles do not see or hear anything coming from the camera. Camera #2 is located approximately 60 feet from the nest and has the ability to capture images of the nest action outside the view of Camera #1. Both cameras are environmentally friendly, non-intrusive, and positioned to offer the best view of the nest and birds while

preserving the pristine beauty of the nest and their surroundings. Camera #3 is installed closer to the north of the pond, to capture activity happening around the pasture and in the pond area. Cam 360 (Camera #4) is located in the nest tree and the first ever live camera in history to capture a 360 degree look into a Bald Eagle's daily activity. **This camera allows you to click and drag to any viewing area for a fully immersive experience.**

The original adult Bald Eagle pair, known as Ozzie and Harriet, had been coming to this nest since 2006. Researchers spend time observing and looking for distinct markings to identify each individual bird. After Ozzie's passing in the early fall of 2015, Harriet & M15 bonded in late fall of 2015. This is their fifth season as a mated pair at this location. While spotted most months out of the year in the area, they officially reside in this nest between the months of October and May. The nest sits 60 feet above the ground, in a slash pine tree. In the spring of 2016, the nest deteriorated and completely fell apart. The nest camera faces southeast. The pair relocated the nest from across the street to its current location for the 2006-2007 nesting season. This nest is labeled LE026-B of the Florida State Monitoring Program.

Materials: computer with Internet access, Observation Journal Worksheet

Procedure:

1. Tell students they are going to practice being wildlife scientists by observing an iconic Everglades bird of prey, the Bald Eagle, using a live webcam. If you would like to give the students additional background information on the Bald Eagle, you can share these video links:
 - <https://www.youtube.com/watch?v=oKficmlxzal> and/or <https://www.teachertube.com/videos/seaworld-kids-meet-the-animals-bald-eagle-407493>)
2. Explain briefly what a webcam is and then instruct students to go to this website: <https://www.dickpritchettrealestate.com/eagle-feed.html> and select CAM 360 for making their observations. They can also click on the other three web cams, but should use CAM 360 for their observation journal.
3. Instruct students to make and record their observations over a 3 day period, observing for at least 3 minutes each day. They can choose different times of day if they wish.
4. Share the observation journal handout with the students and instruct them to complete the questions for each day of observation. Emphasize the importance of making careful, detailed observations. If you choose, you can provide students with more information about this particular webcam at <https://www.dickpritchettrealestate.com/SWFEC%20FAQs%202017.pdf>
5. After students complete their observational journals, discuss with them:
 - What were your most important observations? Why?
 - Why is it important for scientists to record their observations?
 - Do you think your observation skills improved through this lesson? Why or why not?
 - What did you learn about Bald Eagles from observing them in the wild?

Everglades Wildlife Watch: Observing the Bald Eagle

Student Page and Ethogram Chart

Directions: You are going to practice being wildlife scientists by observing an iconic Everglades bird of prey, the Bald Eagle, using a live webcam. A webcam is a video camera that feeds or streams video in real time to or through a computer to a computer network. In this case, the webcam allows you to observe an active Bald Eagle nest in southwest Florida.

1. Visit this website <https://www.dickpritchettrealestate.com/eagle-feed.html> and select CAM 360. This webcam allows you to click and drag to any viewing area of the nest. You can also click on the other three webcams, but use CAM 360 for recording your observations on your ethogram chart and your journal.
2. Select 3 days and times that you will make and record your observations, observing for at least 3 minutes each day. You can choose any days or times you wish as long as there is daylight. For each day you will complete both your ethogram chart, which captures your observations of certain Bald Eagle behaviors, and your observation journal.
3. After you have completed all three days of observation, think about or use your science journal to answer these questions:
 - What were your most important observations? Why?
 - Why is it important for scientists to record their observations?
 - Do you think your observation skills improved through this lesson? Why or why not?
 - What did you learn about Bald Eagles from observing them in the wild?



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Bald Eagle Webcam Ethogram Chart

Document your observations by using tally marks to note the number of times you observe any behaviors by either the adult or young Bald Eagles.

Day 1:

Action	1 st Minute	2 nd Minute	3 rd Minute
Example: Adults visiting the nest	/	/	/
Adults visiting the nest			
Adults absent from the nest			
Adults feeding young			
Adults keeping watch over the nest			
Young alert in nest			
Young vocalizing in nest			
Young being fed by adults			
Young eating food left by adults			
Other behaviors observed:			

Day 2:

Action	1 st Minute	2 nd Minute	3 rd Minute
Example: Adults visiting the nest	/	/	/
Adults visiting the nest			
Adults absent from the nest			
Adults feeding young			

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Adults keeping watch over the nest			
Young alert in nest			
Young vocalizing in nest			
Young being fed by adults			
Young eating food left by adults			
Other behaviors observed:			

Day 3:

Action	1 st Minute	2 nd Minute	3 rd Minute
Example: Adults visiting the nest	/	/	/
Adults visiting the nest			
Adults absent from the nest			
Adults feeding young			
Adults keeping watch over the nest			
Young alert in nest			
Young vocalizing in nest			
Young being fed by adults			
Young eating food left by adults			
Other behaviors observed:			

Bald Eagle Observation Journal



Name: _____

Day 1: (observe for 3 minutes)

Date: _____ Time: _____ Temperature: _____ Weather Conditions: _____

1. Describe what you see today. Are there any Bald Eagles? If so, how many? Are they adults or young? Can you describe their features, such as color, size, beak, etc.
2. If any Bald Eagles are present, what are they doing? Describe their activities over the 3 minutes you observe them.
3. What else do you see? Describe the nest and the tree that it is in.
4. What else do you see? What observations can you make about the area surrounding the Bald Eagle nest?
5. Draw a picture of what you see today.
6. What sounds do you hear today? Describe them. Are the Bald Eagles making sounds? Do you hear the wind? Are the sounds from nature or are they coming from human activity?

Day 2: (Observe for 3 minutes)

Date: _____ Time: _____ Temperature: _____ Weather Conditions: _____

1. Describe what you see today. Are there any Bald Eagles? If so, how many? Are they adults or young? Can you describe their features, such as color, size, beak, etc.
2. If any Bald Eagles are present, what are they doing? Describe their activities over the 3 minutes you observe them.
3. What else do you see? Describe the nest and the tree that it is in.
4. What else do you see? What observations can you make about the area surrounding the Bald Eagle nest?
5. Draw a picture of what you see today.
6. What sounds do you hear today? Describe them. Are the Bald Eagles making sounds? Do you hear the wind? Are the sounds from nature or are they coming from human activity?

Day 3: (Observe for 3 minutes)

Date: _____ Time: _____ Temperature: _____ Weather Conditions: _____

1. Describe what you see today. Are there any Bald Eagles? If so, how many? Are they adults or young? Can you describe their features, such as color, size, beak, etc.
2. If any Bald Eagles are present, what are they doing? Describe their activities over the 3 minutes you observe them.
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