

Bird Parts and Bird Arts

Grades: Upper Elementary (4-6)

Subjects: Visual Arts, Science

Time Required: 30-45 minutes

Author: Biggs Museum Education Staff

Lesson Overview

Students will explore the historic prints of John James Audubon and related works by contemporary artists and learn how these artists record birds, their habits, and habitats. Students will then create their own bird for a habitat of their choosing using guides for beaks, feet, and feather color.

Learning Objectives:

Students will be able to

- Recognize that birds' body parts correlate to their behavior, diet, and habitat
- Describe how modern and historic artists depict birds and animals using observation and artistic interpretation
- Apply knowledge of beak shape, foot type, and feather coloring to draw or paint a bird that is suited to a specific habitat
- Include realistic or interpretive details in their art work that indicate the birds' habitat or behavior

Featured Artwork

- *Arctic Tern (Sterna Artica)*, 1835-39, John James Audubon
- *Red Bud*, Deidre Murphy, 2015
- *Brasilian Caracara Eagle*, John James Audubon, 1833-1839
- *Carolina Parrot*, John James Audubon, 1831-1839
- *Modern Habitat*, Kevin Sloan, 2014

Materials

- Images of each art work (downloadable from PowerPoint on Biggs' website)
- Paper or canvas
- Colored pencils or painting supplies
- Resource list for Audubon biography and bird information (included in lesson plan)
- Worksheet for art activity (included in lesson plan)
- Vocabulary sheet (included in lesson plan)

Featured Vocabulary Words

Naturalist: an expert in or student of natural history; a person who practices naturalism in art or literature

Habitat: the natural home or environment of an animal, plant, or other organism

Print: an image made by any method involving transfer from one surface to another

Contemporary artist: a living or recently deceased artist

Curator: a keeper or custodian of a museum or other collection

Extinct: no longer in existence

Adaptation: a change or the process of change by which an organism or species becomes better suited to its environment

Lesson Steps

1. **Introduce the Lesson**: Explain the biography of John James Audubon and his project to paint all of the birds of North America. Make a point to describe Audubon as both an artist and a **naturalist**. Describe how he carefully observed birds in the wild and that his art works are very detailed to tell viewers about the birds' behaviors and **habitat**. Explain that this lesson will explore how art can be used to record the natural world. Offer an explanation of his artistic process, i.e. that he created watercolors that were then turned into **prints** so that they could be replicated and sold to a wide audience. Explain that in this lesson/exhibition, Audubon's prints have been paired with work by **contemporary artists**. Encourage discussion about why this might have been done and how **curators** plan exhibitions around central themes.
2. **Arctic Tern, John James Audubon**: Point out that in this work, Audubon has portrayed the bird's habitat in the background and ask students to describe it and name the type of habitat. Explain or have students' discuss how even without the background, we know that this bird is suited to water habitats that feature cool colors. Ask students to describe the features that make this bird suited to such a habitat. Ask students to describe the bird's positioning and what they think it is doing. Explain that Audubon very carefully observed birds' behaviors and showed them in poses that revealed those behaviors. In this instance, he depicted a bird "dive-bombing" into the water to hunt, showing the viewer how and what the bird eats.
3. **Red Bud, Deirdre Murphy, 2015**: Explain that this artist is showing this bird's habitat and behavior in different and similar ways to Audubon. Ask the students to identify some of those ways and compare and contrast them to Audubon's work. In particular, ask students what the lines in the painting might represent and encourage them to think about bird behavior. Ask them how this artist might have painted the same arctic tern Audubon depicted. How would it be different or similar?
4. **Brasilian Caracara Eagle, John James Audubon**: Point out to students that this work has no background, leaving viewers to make assumptions about the birds based on the details Audubon included about them. Ask students to think about the birds' habitat and diet. What landscape might they blend into with their coloring? Why might they have talons instead of webbed feet?

Based on their beaks, what kind of food might they eat? Ask to students to brainstorm how they might depict these birds as contemporary artists. What would they want the view to know about these birds?

5. **Carolina Parrot, John James Audubon:** Explain to students that some of the birds and animals Audubon portrayed are now **extinct**, including these parrots. Engage students in a discussion of extinction – what are some other animals that are extinct? How can extinction happen? Describe the factors that led to the extinction of the Carolina parrot and point out that Audubon’s print/painting is one of the only visual records we have of these birds. Ask students to think about why this is the case. What process would we use today to scientifically document birds and animals?
6. **Modern Habitat, Kevin Sloan, 2014:** Point out that this painting was made recently and that the artist could have used a camera. Engage them in a discussion of why an artist might use painting instead of a camera. Explain that many animals have adapted to conditions made by humans and, as a result, have not gone extinct like the Carolina parrot. Ask students if anyone knows what kind of bird is depicted. Ask students to define **adaptation** and describe how this bird might have adapted to humans’ impact on the environment. Ask students to think about adaptation in the birds they’ve seen: did they evolve to have specific beaks and feet to fit an environment? Or did they seek out environments that suited their beaks and feet? How might they have adapted?
7. **Tour Conclusion:** Ask a few students to volunteer their favorite work from the tour. Be sure to engage them in a conversation about what specifically they liked and why they liked it. Challenge them to describe this tour to a friend or family member who didn’t come on the trip – what would they say?
8. **Activity – Making a Bird:** Students will either paint or draw a bird that has an appropriate beak, feet, and feather coloring for a specific habitat
 - a. Using the “Bird Brainstorm” worksheet, each student will pick a habitat (Prairie, Salt Marsh, or Forest) for a bird they’ll create. Either with the class or individually, students will go through the “Beak Guide” and “Feet Guide” to see what each type looks like and understand how each is used. Then students will circle on their worksheet one beak type, one feet type, and any feather colors to imagine and create a bird that could live in the habitat they chose. If time allows, they can also create a work that includes the bird’s habitat in the background and create an imagined diet and behaviors for this bird.

Assessment

Assess students on their participation in the discussion of the art work included in this lesson.

Assess each student’s bird to evaluate whether they’ve chosen appropriate feet, beak, and feather colors for the habitat they chose.

Assess each work of art for creativity and understanding of basic art concepts like scale and composition.

Assess each student's ability to convey their idea in their work of art.

Extensions

This lesson can be combined with an outdoor component where students search for birds in the wild. They can use the observation skills they've learned in the lesson, as well as their new knowledge of beak and feet type to determine some characteristics of the birds they see.

Standards Addressed

Visual Arts

Grade 4

VA: Cr2.3.4a – Document, describe, and represent regional constructed environments

VA: Re.7.2.4a - Analyze components in visual imagery that convey messages

Grade 5

VA: Cn10.1.5a - Apply formal and conceptual vocabularies of art and design to view surroundings in new ways through artmaking.

Grade 6

VA: Re8.1.6a - Interpret art by distinguishing between relevant and non-relevant contextual information and analyzing subject matter, characteristics of form and structure, and use of media to identify ideas and mood conveyed.

Science

Grade 4

4-LS1-1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction

Grade 5

5-ESS3-1: Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment

Grade 6

MS-LS1-4: Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively

Further Resources on John James Audubon and his Birds

Audubon Biography: <https://www.audubon.org/content/john-james-audubon>

Arctic Terns: https://www.allaboutbirds.org/guide/Arctic_Tern/id

Brasilian Caracara Eagle (Crested Caracara): https://www.allaboutbirds.org/guide/Crested_Caracara

Carolina Parrot (Carolina Parakeet): <https://www.audubon.org/birds-of-america/carolina-parrot>

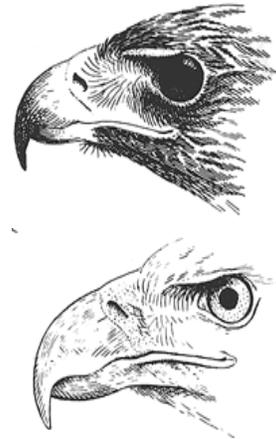
<http://johnjames.audubon.org/last-carolina-parakeet>

Pelican: <https://www.audubon.org/field-guide/bird/american-white-pelican>

Beak Guide

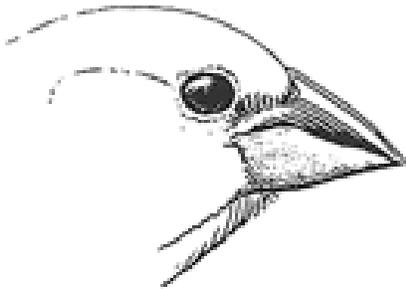
Tearing

Birds that hunt and eat large prey need beaks that can tear their food. Birds with these beaks are found in many habitats including prairies, salt marshes, and forests.



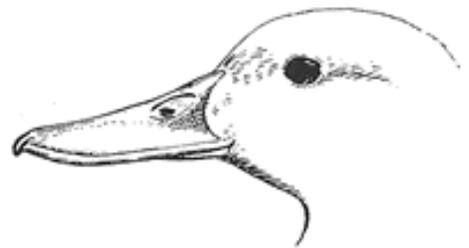
Cracking

Birds that eat seeds and nuts need small, thick beaks that are strong enough to crack shells. These birds live in habitats that are filled with trees and plants, like forests, prairies, and salt marshes.



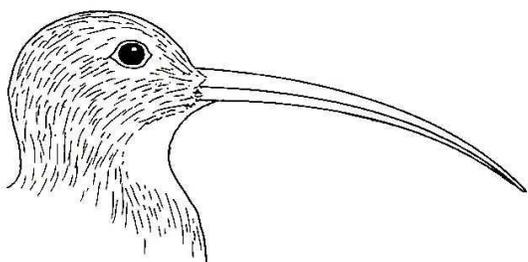
Straining

Some birds get their food by straining water through their flat, round beaks. Birds with these beaks live in places with water, like salt marshes and forests.



Probing

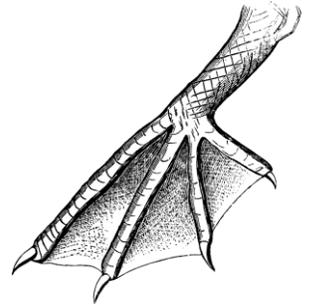
Probing beaks are long, thin beaks found on birds that eat bugs, worms, and small water animals. They use their beak to pull food out of shallow water and mud. Birds with these beaks like habitats with a lot of water and mud.



Feet Guide

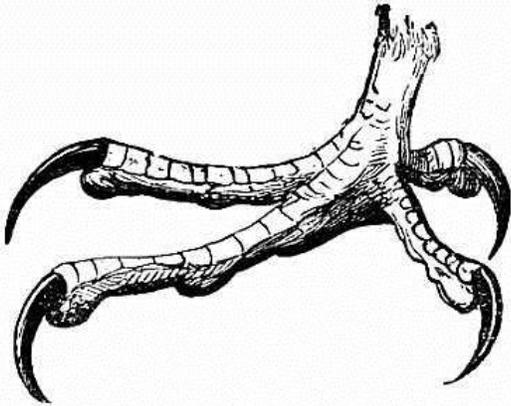
Swimming

Webbed feet are found on birds that swim and the webs help them paddle in the water. Birds with these feet live in habitats that feature water, like forests and salt marshes.



Catching

Birds that hunt have sharp, pointy feet that so they can catch prey and tear food. These feet also allow birds to sit on large branches. Birds with these feet live in many different habitats.



Perching

Perching feet are found on smaller birds that live in trees and plants. Their feet can grip onto different sized branches. Birds with these feet are found in habitats with plants and trees, like prairies, forests, and salt marshes.



Wading

Birds who walk in shallow water or mud have toes that are spread out to help with balance and long legs to keep them above the water. These birds live in very wet, muddy habitats like salt marshes.



Habitat Descriptions

<h2>Prairie</h2> 	<p>Many large and small animals live in the prairie and there is not a lot of water. Birds who live here have beaks for tearing food or beaks for eating nuts and seeds. Their feet need to be good at sitting in trees or plants. These birds have feathers that are shades of brown and yellow to blend in with the grasses and plants.</p>
<h2>Forest</h2> 	<p>Forests are filled with trees and plants that grow nuts and berries and they also have rivers and lakes. Birds who live here need beaks for tearing, cracking seeds, or straining water. They also need feet for catching, perching or swimming. The feathers on these birds are usually black and grey with some pops of colors like red, yellow, and blue. This helps camouflage them in the dark green trees.</p>
<h2>Salt Marsh</h2> 	<p>Trees and small plants grow in marshes and they are filled with water. Birds with beaks for probing, tearing, cracking or straining live here and they can have feet for perching, catching prey, swimming and wading. Their feathers are often brown, white, grey, blue, and black. These colors make them blend in with the marsh.</p>

Bird Brainstorm

Use this sheet to help plan out your bird. Pick one habitat and then circle one beak and one feet type. You can use as many colors as you like.

Prairie	Forest	Salt Marsh
Beak Types Tearing Cracking	Beak Types Tearing Cracking Straining	Beak Types Tearing Cracking Probing Straining
Feet Types Catching Perching	Feet Types Catching Perching Swimming	Feet Types Catching Perching Swimming Wading
Feather Colors Brown Yellow Grey White	Feather Colors Black Brown Grey Yellow Dark Red Dark Blue	Feather Colors Brown White Grey Blue Black