

Wildlife Warriors April 2020 – Birds

Date: April 8, 2020	Unit/Lesson: Birds
Grade: 4 th – 8 th grade	Grouping: Individual/Family

Essential Question(s):

1. What is the evolutionary history of birds?
2. What do birds need to survive?
3. What are some adaptations that birds use to survive and reproduce?

Learning Target(s):

1. Students should be able to:
 - a. Explain that dinosaurs are ancestral to modern day birds, and provide examples of similarities that are evidence of this fact.
 - b. List the habitat requirements of birds (and all living species in general – food, water, shelter, air, space)
 - c. List and explain two or more bird adaptations, including songs and calls, plumage, and courtship displays

Assessment: Students will complete the following tasks and activities:

- Watch the April All About Birds video presentation
- Video and activity links from presentation:
 - Slide 5: Great Blue Heron
 - https://www.allaboutbirds.org/guide/Great_Blue_Heron/overview
 - Slide 6: Feathers Through Time
 - <https://academy.allaboutbirds.org/features/all-about-feathers/#feathers-through-time.php>
 - Slide 7: The Wall of Birds
 - <https://academy.allaboutbirds.org/features/wallofbirds/>
 - Slide 12: Bird Song Hero
 - <https://academy.allaboutbirds.org/bird-song-hero/>
 - Slide 15: Red-winged Blackbird
 - <https://www.youtube.com/watch?v=c0Lw23yQFwQ>
 - Slide 19: All About Fancy Males
 - <https://academy.allaboutbirds.org/features/fancymales/fancy-males>
 - Slide 20: Courtship
 - <https://www.youtube.com/watch?v=j46ynLaXRgA>
- Additional activities:
 - Slide 11: Make a sound map
 - Ask an adult if you can go outside to listen for ten minutes. Take paper and a pencil with you. Make a map of what you hear. Make an X in the center to mark your location. Mark other parts of the map with words or your own symbols for each sound you hear (like cars, running water, and birds). If you hear birds, listen to each song or call and try to place it on your map. Can you guess where their territories are?
 - Citizen Science:
 - Practice your identification skills using the eBird Photo and Sound Quiz.

- Your parent will need to make an account for you to do this project, but it does not cost anything or take any personal information besides your name and email. This project will allow you to practice your bird identification while helping the Cornell Lab of Ornithology improve their digital library. You see, thousands of bird photos and song recordings are uploaded to the Lab of O's library, but some of these photos and recordings are better than others. The Lab has already identified the birds in the photos and recordings. What they want you to do is practice your ID skills by guessing the identity of the bird in the photo or song, and then rate the quality of the photo or song. They provide examples and descriptions of the quality ratings at this link: https://www.macaulaylibrary.org/how-to/using-and-rating-media/curate-the-archive/photo-quality-rating/#_ga=2.179257249.481071133.1585940696-2105940731.1585685097
- <https://ebird.org/quiz/#setup>

Indiana State Science Standards:

- 4.LS.3 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction in a different ecosystems.
- 8.LS.8 Explore and predict the evolutionary relationships between species looking at the anatomical differences among modern organisms and fossil organisms.

Next Generation Science Standards:

- Structure, Function, and Information Processing: 4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
- Growth, Development, and Reproduction of Organisms: 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.
- Natural Selection and Adaptations: MS-LS4-2. Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.