



Teacher Guide

UNIT 2 LESSON 4: BIRD LANGUAGE

Theme

Communication is a key component of bird survival and reproduction.

Missouri Science Standards: LS1.B.1., LS4.B.1

Vocabulary



Alarm/Warning calls - Give information to other nearby birds, and/or warn of danger or threat; they can be generalized or specialized (i.e., announce the presence of a predator).

Mating /Attraction songs - Used to impress and attract suitable mates.

Territory calls - Used to let other birds know the boundaries of a territory, nesting sites and/or foraging areas; defended by males, pairs, and families.

Contact calls - Used to identify family members or members of the flock. Helps birds to keep in touch with others of the same species while foraging, when they lose contact with the flock, or to keep flock coordinated during flight.

Begging calls - Used by juvenile birds to ask parents for food.

Common Misconceptions to Watch Out For:



- **Birds sing because they are happy.** Males sing to signal their personal qualities to attract females to mate with them and as a form of aggression to warn competing males to stay away. Females tend to prefer males who sing more often or have more complex songs.
- **Only male birds vocalize.** Males and females both call and in some species, females sing, or males and females sing together.

Activity: Bird Language Exploration

Activity Summary: In this activity, students will explore bird communication and how vocalizations help birds survive and reproduce.

Video Link: https://youtu.be/zjOYNv_Vnos

Teacher Notes:

- *Students will be asked to listen to bird sounds, then write about the sounds, draw the sounds, and describe similarities and differences in the bird sounds they hear.*
- *Then they'll be asked to think about what kind of messages birds need to communicate and how those messages might help with their survival.*

Unit 2 Lesson Connection

Lesson 1: Feathers /Lesson 4: Bird Language

Topic: Feathers that Sing!

Missouri Science Standards: LS4.B.1.

Video Series: Meet a Feather Scientist

Notes: Learn about Club Winged Manakins of Central and South America who use feathers to sing

- *Thought this would be interesting for students*
- *Talks about feathers and evolution*

Link: <https://academy.allaboutbirds.org/features/all-about-feathers/#meet-a-feather-scientist.php>

Follow-Up Questions:

1. True or False? The Club-winged Manakin is the only bird that can make sounds with its wings.
2. True or False? The Club-winged Manakin's wingtips knock their wings together 107 times per second while making their high-pitched foghorn sound.
3. Fill in the blank. The way the Club-winged Manakin produces sound through sliding the rachis of a kinked feather (like a pick) over a neighboring feather with a ridged rachis (like a washboard) is called stridulation. This also occurs in _____.
4. What did you find most interesting about the process by which scientist, Kim Bostwick, discovered how the Club-winged Manakin uniquely uses its wings to make sound?

Concluding Questions/Assessment

*Student worksheet included in packet.

1. Give three examples of bird calls and what message the bird is communicating.
 - a.
 - b.
 - c.
2. How do the above messages help the bird survive in its environment?
3. What questions arose when you were observing the patterns in the bird sounds during the activity? Anything you are curious about?
4. What is unique about the Club-winged Manakin? How does this aid in its survival?

