Lesson Summary: Animals and humans communicate in many different ways. This lesson explores those differences and similarities through the songs of birds, drawing upon two children's books: *Bird Song* by Audrey Wood and *Subway Sparrow* by Leyla Torres.

Standards Alignment

**Next Generation Science Standards**

- 2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.
- 4-LS1-2. Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.
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**Framework for K-12 Science Education:** Science & Engineering Practices 5,8

**Minnesota Science Standards**

- Science is a way of knowing about the natural world and is characterized by empirical criteria, logical argument and skeptical review.  
  Benchmark codes: 9.1.1.1.1 & 9.1.1.1.6
- Natural and designed systems are made up of components that act within a system and interact with other systems.  
  Benchmark codes: 9.1.3.1.3
- Scientific inquiry is a set of interrelated processes used to pose questions about the natural world and investigate phenomena.  
  Benchmark code: 0.1.1.2.1
- Living things are diverse with many different characteristics that enable them to grow, reproduce and survive.  
  Benchmark codes: 0.4.1.1.1, 3.4.1.1.1, 3.4.1.1.2 & 5.4.1.1.1

Objectives—Students will

- learn that animals are social creatures.
- build observational skills.
- understand that there are a variety of ways to communicate and that different animals communicate in different ways.
- appreciate the diversity of birds and their songs and of humans and their languages.

Materials

- Parent's note re: bringing pine cones
- Two children's books demonstrating bird songs and different human languages:
  - *Subway Sparrow* by Leyla Torres
  - *Bird Song* by Audrey Wood
- Student guide (coloring worksheet)
- Bird Song PowerPoint presentation
- Computer with an internet connection

for building bird feeders

- pine cones
- bird seed
- peanut butter
- string
- paper plates
- spoons
- napkins
- paper bags
Engage
Give one copy of the student guide to each student, allowing time for them to color the image of the bird eating at the bird feeder. While they are coloring, talk with your students about the similarities and differences between human language and bird song. As a class, answer the questions on the worksheet; working as a group will help you engage learners at all levels. Alternatively, you could challenge the students to complete the worksheets on their own and, after a set time, to bring their ideas to the full group for discussion.

Explore
1. Show students the cover of the book Bird Song. Encourage them to brainstorm about what birds they believe they will see in the book.
2. Read Bird Song to the class.

Explain
1. Show the Bird Song PowerPoint presentation - click on the links to launch YouTube videos of the three birds featured in the presentation: Northern Cardinal, Crow, and Barred Owl.
2. Incorporating new information from the book and the PowerPoint, revisit the discussion of the similarities and differences between human and bird communications.

Elaborate
1. Explain that different cultures and peoples communicate through different languages.
2. Read Subway Sparrow to the class.
3. Talk about how the people in Subway Sparrow could work together even though they do not speak the same language.
4. Invite students who speak languages other than English, for example Hmong, Spanish, or American Sign Language, to talk about their experiences and the differences and similarities they see between English and their language.

Evaluate
Work together as a class to compare and contrast the two books by completing the Venn diagram at the end of the PowerPoint presentation. Ask each student to provide at least one answer.

Give the students time to build a bird feeder that they can take home. That way, they'll be able to continue their observations of birds and their songs.