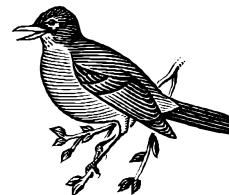




## Bird Banter



**Grade Level:** Elementary – Middle School

**Purpose:** Students will be introduced to the activity of birding. Students will learn that listening to bird calls and songs is one of the best ways to observe birds in their natural habitat. Students will have the opportunity to practice making sounds to attract birds, as well as the opportunity to listen to bird songs and calls.

**Objective:** Students will be able to recognize some bird songs of common Nevada species and the importance and differences between songs and calls.

**Nevada Department of Education State Standards:**

Diversity of Life (Life Science Unifying Concept D) Evidence suggests that living things change over periods of time. These changes can be attributed to genetic and/or environmental influences. This process of change over time is called biological evolution. The diversity of life on Earth is classified using objective characteristics. Scientific classification uses a hierarchy of groups and subgroups based on similarities that reflect evolutionary relationships.

**Materials:**

CD or tape with bird calls and songs

Bird guide for western United States

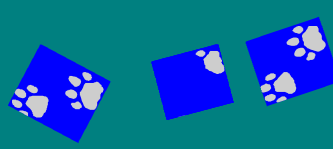
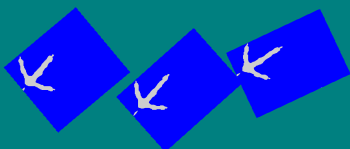
Duck or goose call

**Background Information:** Communication is important to birds, especially in habitats where vegetation impedes vision, such as forests, grasslands and wetlands. Birds communicate by vocalizations, such as songs and calls, other noises, like tapping and drumming, and behaviors such as courtship flights and dances.

Songs are specific patterns of notes repeated with few variations. They are used to attract mates and mark the territory necessary for production and rearing of young. Birds use the peaceful "war of words" to settle boundary disputes, instead of the dangerous "war of weapons" people sometimes use.

Each species has its own specific song or songs. Some birds have over a dozen calls and songs (cardinal). Some birds are able to mimic the songs of other birds (catbird, mockingbird), humans and our products (starlings can imitate a car alarm). Just like humans, bird songs have regional dialects. Some birds are born knowing how to sing. Others must listen to calls of adult birds of their kind and practice the calls before perfecting them.

When alerting others of danger, birds call. Calls are also made when feeding or migrating. Pre-social (independent) young communicate with their parents through a location call. When a covey of bobwhite is split up, they locate each other and rejoin the group through



Birds do not have vocal cords. To produce sounds, vibrations are sent across the syrinx (voice box) of a bird. The more muscles a bird has attached to the syrinx, the more vocalizations it can make. For instance, mockingbirds have many muscles and can produce a variety of sounds, while rock doves' (domestic pigeons') singular pair of muscles results in only the single "coo" sound.

A variety of other types of communications are used by birds. Hungry nestlings peck at their parents' beaks or open their mouths widely to beg for food. Male ruffed grouse "drum" and prairie-chickens "boom" to attract a mate. Sandhill cranes and American woodcocks have elaborate mating dances and flights. A male wild turkey will spread its tail, drop and "rattle" its wings to attract a mate.

Communication is very important to birds. Without communication, many birds would starve, lose their way during migration, be unable to defend a territory or find a mate.

**Anticipatory Set:** Ask students what birds they have seen in Nevada. Make a classroom list of Nevada birds that can be used throughout the unit or year. Introduce students to the concept of "birding." Explain to students that birding is an activity where people observe and identify birds in their natural surroundings. Tell students that they will have the opportunity to go birding on a field trip to Water Canyon (optional). Birds are often difficult to see because they are often in protective covering, such as trees or tall grasses, so the best way to observe birds is by listening. Explain to students that birds communicate in many different ways. Discuss the difference between a call and a song and the importance of both. Have a class discussion about bird communication and the importance of it.

### **Developing the Lesson:**

1. Teach students how to attract birds with sound. One of the easiest sounds you can make is to suck on the back of your hand, which will attract chickadees. As a class, practice making bird sounds.
2. Listen to the tape included in this education kit or Audubon audio tapes. This is a good way to introduce children to birds. Use a bird guide to look up the birds that you hear on the recording. Remember to play the tapes in the background during free time periods!
3. After listening to bird call tapes, take students outdoors to practice identifying bird songs and calls. Have bird guides on hand so students can look up the birds they see and hear. Make a list of the birds you observe; add them to your class list.
4. Have a class bird sounds contest, seeing who can call like a robin or caw like a crow.
5. Bring a duck/goose call from home and have children share examples of the sounds they can make. Sanitize the call if shared.

**Evaluation:** Formally observe students by their ability to differentiate between calls and songs, by their ability to make sounds to attract birds, and by their participation in the bird sounds contest. Informally observe students by their ability to answer questions and by their contributions to class discussion.

**Vocabulary:** syrinx, drumming, song, call, booming, covey, migration, precocial