

Western Meadowlark

Talk about the difference in the plumage, bills, and feet of various birds and make a stand-up paper meadowlark.

OBJECTIVES

Students will understand that:

- İ there are many different birds in Kansas
- İ all birds share certain similar characteristics: they fly, they have feathers, they have a plumage, they have beaks
- Đ the meadowlark is our state bird and it has certain unique characteristics that make it different from other birds

MATERIALS FROM TRUNK

Audio tape

"Meadowlark Song"

Graphics

#4 - Western Meadowlark

#5 - Plumage

#6 - Bills

#7 - Feet

Worksheet

#2 - Meadowlark Model

OTHER MATERIALS

- ' Card stock, scissors, glue, colors or markers
- ' Cassette tape recorder

TEACHER PREPARATION

- ' Copy worksheet #2, the Meadowlark Model, onto card stock to make model sturdy. Need one copy per student.
- ' Set up tape recorder and make sure the tape is at the beginning of the meadowlark song.

HISTORICAL BACKGROUND

In 1925 the Kansas Audubon Society conducted a statewide election involving



schoolchildren to choose a state bird. The western meadowlark won the election with nearly 125,000 votes. The bobwhite and the northern cardinal took second and third, respectively. In 1937 the Kansas Legislature made it official. The meadowlark is the state bird of Nebraska and Wyoming too! Many other species of birds may have deserved recognition as well since the number of different species in Kansas is quite abundant. In fact, a good percentage of all birds found in North America are found in Kansas sometime during the year. The focus here is not to introduce all the different species but instead to use the western meadowlark to teach bird characteristics and encourage an awareness of the variety of birds around us.

It is assumed that all birds fly and all birds native to Kansas do fly. There are two types of birds your students may see in local zoos: those that fly and those that do not fly. Ostriches, rheas, and penguins do not fly. The reason that ostriches and rheas do not fly certainly has something to do with their large size, but more importantly they are lacking a keel, which is an extension of a bird's sternum. This connects a bird's ribs together and allows the powerful chest muscles needed for flight a place to connect to the skeleton. Notice the keel the next time you carve up a turkey.

The majority of birds fly. This is possible because they have wings and feathers. Wings come in four basic shapes and each shape affects flight in different ways. To understand how wings work, take an 8 ½" x 11" piece of paper and hold it with both hands about two inches from the front edge. Bring the paper up near your mouth and blow over the top of the paper. You would think that this would force the paper down but instead the paper rises! This is because air flows faster over the top of the paper than the bottom. This reduces the air pressure pushing down on the paper while the air pressure pushing up on the paper remains the same or is lowered, thus the paper is "lifted." Wings on birds work the same way (so do wings on airplanes)! It is the curved shape of the wing that makes this work. The top of the wing is "longer" than the bottom of the wing. This creates less pressure on the top of the wing thereby lifting it. It is this force called "lift" that allows a bird to get off the ground.

Feathers also give birds their own unique plumage. Plumage is the color pattern of the bird. For example, blue jays are blue and cardinals are red but often birds are more than one color. The western meadowlark is multicolored. Its chest, upper neck or throat, and part of its face is yellow. Dividing its upper neck from its chest is a black V-shaped patch. Its back is a combination of black, brown, and buff-colored feathers. Its chest is divided from its back with a white section that has black-brown spots in it. A bird's plumage helps us to tell one type of bird from another.

Another characteristic that helps us identify a bird is its song. Some songs, like the blue jay's redundant "jay, jay, jay" can be quite annoying while other songs can be quite melodic and pleasing. The song of the meadowlark is such a tune. Its flute-like quality and range of melody conveys to the listener a pastoral scene of prairie grasses and clear blue skies on a



warm June day in Kansas. It is this quality alone that probably won the statewide election for the western meadowlark.

Bills are another indication of a bird's classification. Bills come in a variety shapes and styles and allow different birds to feed on different food supplies. For example, eagles and hawks have sharp, hook-like beaks for catching prey. Pelicans have large deep bills for catching fish. The meadowlark has a long, pointed bill used for catching grasshoppers, caterpillars, and beetles.

You can also tell a lot by looking at a bird's feet. A number of different foot styles exist among birds. Ducks, for example, have webbed feet for swimming, and hawks and eagles have claws for catching small animals like mice. The foot of a meadowlark has three long toes that can be used both for walking on the ground and perching on a tree or a fence post. This is often where meadowlarks are visible as people drive through Kansas.

Different birds build different types of nests. Some birds build nests that hang from limbs on a tree. Others build nests of twigs that sit perched on top of a trees' limbs. The meadowlark builds its nest on the ground in a clump of grass. Although they are on the ground, meadowlark nests are very hard to find.

Sources:

The Audubon Society Master Guide to Birding.

Freethy, Ron. *How Birds Work.*

Squire, Lorene. *The Meadowlark.* (Bird Lore, 1927)

Thompson, Max C. and Charles Ely. *Birds in Kansas.*

VOCABULARY

Terms

Beak	Long, sharp part in front of and covering a bird's mouth, also called a bill.
Bill	Long, sharp part in front of and covering a bird's mouth, also called a beak.
Bird	A group of animals with feathers and wings that usually can fly.
Feather	Special structure that covers a bird and helps it to fly.
Marsh	Low, wet land. Grasses and reeds grow in marshes.
Nest	Shelter made by birds where they lay eggs and protect young.
Plumage	The color pattern of a bird.



Symbol Something that stands for something else. Symbols are used to communicate words, emotions, directions, etc.

Wetland Land or area containing much soil moisture such as a marsh.

Wings What birds have instead of arms that help them fly.

Birds and other animals referred to in this lesson

Avocet Shore bird found in the wetlands of Kansas. Known for orange head and a very long bill that curves upward.

Bald Eagle Large bird of prey that feeds on other animals. Has dark or black body with white head and hooked beak. Bird is rarely seen but is best spotted in Kansas along river valleys in late winter.

Beetles Small insects with biting mouths and hard front wings. Food for the meadowlark.

Blue Jay Common bird found in Kansas even in city neighborhoods. Mostly blue with some small white and black patches.

Caterpillar The worm-like stage in an insect's life cycle. Food for the meadowlark.

Duck Bird that can swim and dive in water. Has webbed feet and a flat bill. Its song is most commonly described as a "quack." There are many different types of ducks in Kansas with very different plumage.

Grasshopper Jumping insect with large hind legs. Common in summer in Kansas. Food for the meadowlark.

Hawk Large bird of prey that feeds on other animals. Usually mostly brown in color. Has a hooked beak. Many different types of hawks live in Kansas.

Northern Cardinal Common bird found in Kansas even in city neighborhoods. All red with a crest on the top of its head.

Red-winged Blackbird A marsh bird found near water. Solid black except for red patch on the upper wing.

White Pelican Very large wetland bird found in Kansas in the fall. Solid white except for a patch under each wing that can be seen clearly when flying. Has a very large bill with a deep pouch for catching fish.



ACTIVITY

- 1) Tell students you are going to play a tape for them. Ask them to listen closely because they are going to have to guess what the song is.

Play tape of the audio tape, "Meadowlark Song."

Have students make guesses then identify the song as that of the meadowlark.

- 2) Hold up graphic #4, the Western Meadowlark. Explain that many years ago children across Kansas voted for the meadowlark to be the state bird of Kansas; it is a symbol of Kansas. Ask the class what a symbol is.
® *Something that represents something else. Examples might include stop signs or red traffic lights that mean stop, green lights that mean go, and railroad crossing signs that mean stop and look for a train before crossing.*

- 3) With the class looking at the picture of the meadowlark ask them what different colors they see.
® *Yellow, black, brown, and buff or cream colors.*

Explain that the color of a bird is called its plumage.

- 4) Explain that there are many different types of birds in Kansas, not just meadowlarks, and that all birds have certain things in common. Ask them to tell you some of the things they already know about birds.
® *Their answers should include that birds have feathers, wings, and beaks; they usually fly; and they build nests.*
- 5) Ask how birds differ from one another.
® *Their answers should include birds are different sizes (some are large and some are small), have different types of feet, and are different colors.*

- 6) Explain to students that they can use the clues they've listed to help identify birds, especially the western meadowlark.
± Hold up graphic #5, Plumage and have them compare the different colors of the four birds pictured.
® *Blue Jay - Mostly blue with some white on its wings and some black parts.*



® *Northern Cardinal - All red (with a crest on its head).*

® *Red-winged Blackbird - All black except for red on the upper wings.*

® *Western Meadowlark - Bright yellow throat and chest with a black "V" between them. Some yellow is also found on its head. The rest of the meadowlark is made up of brown, black, and white spots.*

± Show students graphic #6, Bills and have them compare the different bills of the four birds pictured.

® *White Pelican - Large bill with huge bottom jaw used for catching fish.*

® *Bald Eagle - Hooked beak used for catching mice and other small animals.*

® *Avocet - Long, thin beak for digging in the mud of a river bank or lake for insects.*

® *Western Meadowlark - Long, pointed bill used for catching grasshoppers, caterpillars, and beetles.*

± Have class look at graphic #7, Feet, and compare the different feet of the three birds pictured.

® *Duck - Webbed feet for swimming in water.*

® *Hawk - Clawed feet for swooping down and catching mice and other small animals.*

® *Western Meadowlark - Three long toes for walking and perching on trees limbs and fence posts.*

7) Hand out worksheet #2, the Meadowlark model to the class. Explain that they are going to build a model of a meadowlark. (Place graphic #4, the Western Meadowlark where they can easily see it.) Have them follow the instructions listed below.

± Have class look at the picture of the meadowlark and color the bird on their worksheets to look like what they see in the picture.

± Cut out the model on *the heavy line*.



± Fold where indicated.

± Glue or tape the bottom edges together.

EXTENDED ACTIVITIES

- 1) Have students bring in feathers they may find to compare different colors that make up plumage of birds.

For both safety and ecological reasons, do not encourage students to bring in nests.

- 2) Ask for possible explanations of how the meadowlark got its name. What about other birds such as the blue jay and bald eagle?

