A Newspaper In Education partnership project with the Missouri Department of Conservation

# Songbirds of Missouri Robin

## Vocabulary

Match the word with the definition, then write a sentence using each word. Share your sentences with the class.

Harbinger	A. A large group of birds		
Adapt	B. To sit on to provide the heat necessary for hatching		
Urban	C. An interruption or break in a routine		
Rural	D. In a town or city		
Brood	E. In the country, away from the development of cities or towns		
Incubate	F. The routine of behavior intended to attract a mate		
Hiatus	G. A family of young birds		
Landmark	H. A turning point or a point at which something changes dramatically		
Flocks	I. Something that foreshadows the		
Courtship	future; a sign of something to come		
	J. To adjust to a set of conditions		

(Missouri Show-Me Standards: CA.1, CA.6, Goal 2.1)

### **Classroom Activity**

Grade levels: 2-4 (Missouri Show-Me Standard: Goal 1.3)

Objectives: After completing this activity, students will be able:

- · To explain the materials robins use in their nests
- To explain how robins build their nests
- · To explain how humans affect nest building

Materials:

- Twigs of varying length
- · Yarn, string, plant stems of varying length, blades of grass, weed leaves, and cotton
- Material cut into 4-inch or 5-inch strips.

Each student should have 10 pieces of each item and each should get a handful of grass blades. All students will get mud from a large container of mud slurry mixed to the consistency of a thick oatmeal. **Background:** 

Using only their feet, beaks and chests, robins build sturdy nests capable of holding eggs and finally, a brood that grows stronger and more active in the nest each day. They use grass and weed stems, twigs, feathers, paper and cloth strips to make their nests. Mud, which is carried to the nest in the robin's beak and smeared into place with its breast, works like an adhesive for the larger pieces in the outer nest. It also holds the smaller items together, such as grass and yarn, that line the nest interior. Students will build nests in this activity and gain an appreciation of a bird's nest-building abilities. They will also learn how materials and habitat in the surrounding area influence a bird's nest.

Use one class period to prepare students for the activity. Discuss the nest-building of robins, paying special attention to the materials used and the techniques the female employs. Explain that larger twigs and weed stems are used for the outer portion of the nest and smaller, finer materials are used to create a semi-soft interior.

1) On the day of the activity, sit students on the floor so each has ample room for nest-building. Nests can be built on spread-out newspapers. Give each student the materials and tell them the goal is to build a nest somewhere between the size of a saucer and a small plate (show the size with your hands).

 Students should begin by stacking larger items (sticks, long weed stems, etc.) in the form of a nestshaped saucer. Mud can be used to help hold pieces in place.

3) Once the outer portion of the nest is built, each student should take a handful of mud and smear it on the inside of the nest. The smaller and softer materials such as the grass and cloth strips can then be pressed against the mud, giving the nest a soft lining. Let finished nests dry overnight.

The next day, examine the finished products. Discuss problems students encountered. Discuss how birds have become adept at using their beaks, chest and feet to overcome these challenges. Discuss where robins get their nest-building materials. Discuss why human construction and development have made nest-building more challenging for robins.

## Short Answer Q&A

1. Why do we seem to see robins so much more than other birds?

2. How many broods per year do robins have?

3. How many eggs are usually in a robin's brood?

4. What foods do robins eat?

5. Why do people think of robins as returning to Missouri in the spring even though they are year-round residents?

6. How did DDT hurt the robin population?

(Missouri Show-Me Standard: Goal 1.5)

#### Make a chain! (Missouri Show-Me Standard: Goal 1.8)

Sometimes humans do things that have bad consequences for the environment. The use of DDT to prevent the spread of Dutch Elm disease, which in turn hurt robins, is one example of how humans solved one problem but created another.

On a piece of paper, illustrate the effect of DDT on robins by making a "chain." A chain graphic illustrates how one thing in the environment affects something else.

- Un-mix the steps listed to the right and place them in the chain in the order they belong.
- Caterpillars and earthworms absorb DDT into their systems
- · Robins get sick and die
- Elm trees die
- · Beetles carry dutch elm disease to elm trees
- · Humans spray elm trees with DDT
- · Robins eat earthworms and caterpillars

Step 1:	Step 2:	Step 3:	Step 4:	Step 5:	Step 6:

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