

Songbirds of Missouri

Cardinal



Vocabulary

Match the word with the definition.

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| ___ Camouflage | A. To sit upon an egg to provide the heat necessary for hatching |
| ___ Clutch | B. A family of young birds |
| ___ Fledge | C. To disguise or conceal |
| ___ Range | D. To grow the feathers necessary to fly |
| ___ Predators | E. The eggs laid by a bird at one time |
| ___ Brood | F. Animals who hunt and kill other animals for food |
| ___ Incubate | G. Low, woody plants and bushes |
| ___ Habitat | H. The area of land or expanse of territory where an animal lives |
| ___ Shrubs | I. The natural living area that provides the resources an animal needs to survive |

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

Classroom Activity

Northern cardinals were originally concentrated in the southeastern United States. Habitat assistance from humans is probably the main reason cardinals now occupy a much larger range. This activity is designed to demonstrate how this happened.

Objectives:

Students will be able to:

- Describe habitat needs of a cardinal
- Describe the food cardinals prefer
- Describe how humans have helped cardinals thrive in the United States

Activity Time Frame: Repeated over six-week period

Materials:

Notebooks or notepads for journaling; cardinal-friendly birdseed; the assistance of a local biologist or bird expert

Procedure:

- Divide the class into teams of two or three students. Assign a couple of teams to natural habitats that don't feature bird-feeding set-ups, such as stream corridors, forest edges, city parks, etc. Now set up a feeder or find a good spot to scatter bird seed on the ground.
- Assign the remainder of teams to locations with some type of bird-feeding set-up. This could be someone's home, or, if the school budget allows, put a couple of feeders up at school.
- Vary the type of food at each feeding station. Cardinals are especially fond of

sunflower seeds—particularly the black-oil variety—but they also like proso millet and safflower seeds. They prefer a stationary feeder over a hanging one, but if that's unavailable, scatter some seed on the ground. One station can have black-oil sunflower seed; another can have milo, another birdseed mix, another, cracked corn scattered on the ground, etc.

- For a six-week period, have each team do a daily count of cardinals at their observation area. One student from each team should observe the feeder for a few minutes and count the cardinals at the feeder.

Observations can be done in shifts (one student has one week, another one has the next). Cardinals prefer to feed at morning or at dusk, but observations can be made at times convenient for the students. Have each team take note of trees, shrubs, water sources and other habitat elements in the area surrounding feeders.

At the end of the monitoring period, have each team report their overall cardinal count. With the help of your birding expert, determine which trees and shrubs were planted by humans. Discuss how habitat and food availability conditions caused by humans has affected the number of cardinals seen in each area. Discuss how these changes have helped cardinals thrive in the last 200 years.

Grade levels: 4-8

(Show-Me Standards: CA 6; S 3, 8; Goal 1.3, 1.5)

Short Answer Q&A

1. Why is the female cardinal less striking in color than the male cardinal?
2. When can you see the cardinal in Missouri?
3. Where do cardinals build their nests?
4. How many eggs do they lay at one time?
5. Why have cardinals expanded their range?
6. What is the cardinal's favorite food?
7. What was the purpose of the Migratory Bird Treaty?
8. Before the Treaty was passed, what happened to cardinals?

(Show-Me Standards: Goal 1.5)

Math Story Problem:

David is a bird watcher, and a couple of years ago he started noticing that cardinals were building nests and raising their chicks in his shrubs. In 2004, one cardinal raised a brood of four chicks. In 2005, one cardinal had a brood of three chicks, and another cardinal produced a brood of five chicks in a different nest. In 2006, three cardinals raised two broods of two chicks each.

Compute the number of chicks that were produced in David's shrubs each year, then make a bar graph to display the results. During which year were the most chicks born? Based on what you have read about cardinals, why do you think they keep coming back to David's yard to have their chicks? (Hint: What are cardinals attracted to in a yard?)