



Race for Survival

Grade Level: 5-8

Subject Areas: science, biology, ecology, P.E.

Duration:
Preparation - 20 minutes
Activity - 30-45 minutes

Setting:
outside

Group Size:
6-30 students

Materials:

- bandanas (blindfolds)
- rope
- cups
- situation cards
- food tokens (candy, pasta, poker chips, etc.)
- timer
- hat for the cat

Skills Used:
analysis, construction, evaluation, generalization, observation, problem solving.

Vocabulary:
brood, nesting

Project BEAK Links:

- [Adaptations - Reproduction](#)
- [Adaptations - Migration Hazards](#)

OBJECTIVES

- Students will learn how parent birds raise their young.
- Students will identify adaptations birds use to find food and feed their young.
- Students will discover the dangers and challenges birds face when raising their young.

Nebraska State Science Standards

8.4.3, 8.4.4, 8.4.5, 8.7.4

BACKGROUND

Where do we get our food? There are many answers to this question, but most people would say the grocery store. It doesn't take too much effort to drive to the store, buy our food, and put it in our kitchen. Birds aren't so lucky. Not only do they have to find enough food for themselves, but they have to find food for their young as well.

Most parent birds share the responsibility of feeding and caring for their brood, or nestlings. This is good, because without teamwork, caring for a brood of baby birds would be exhausting! Parent birds are on-call 24 hours for feedings, providing chicks with warmth and care, keeping their nests clean, and protecting against predators until their brood is ready to survive on their own. Parent birds also face many dangers and challenges when caring for their young, such as pesticides in their food supply, severe weather conditions, outdoor cats, plate glass windows, and other obstacles.

Birds must adapt to these situations so they can successfully raise their brood. All species have a unique way to care for their young and have developed their own feeding habits. The young of some species, such as American robins, are raised in a cup nest located in a tree and are born helpless, with eyes closed and no down feathers. These nestlings are totally dependent on their parents and will remain in the nest until they can fly. Other species of birds,

such as a killdeer that nest on the ground, are born with eyes open and are covered in soft, downy feathers. These birds are able to leave the nest shortly after hatching and are able to forage for food on their own.

In this activity, students will have a chance to experience some challenges that parent birds face when feeding and caring for their brood. Challenges could include the use of pesticides, outdoor cats, competition with other birds, buildings, and hunters.

ACTIVITY

Before the activity:

1. Rope off an area to use for the relay race or set boundary limits using trees, sidewalks, etc.
2. Spread out "food" on one end of the playing field. Make sure there are enough food tokens to play at least 7-10 rounds.
3. Copy the cut out the "Situation Cards".

Procedure:

1. Divide the group of students into teams of three.
2. Provide each team with one cup. This cup represents the mouth of the baby bird.
3. Explain that two of the students will be the parent birds and one will be the baby bird, or nestling. For more fun, have the

teams be specific birds, such as robins, geese, eagles, etc.

4. The goal of the parent bird is to get enough “food” to feed their baby in the form of a relay race. The parent birds line up as teams with their baby bird behind them holding their cup (mouth).

5. When the adult leader says go, both parent birds will “fly” into the playing field to locate and bring back ONE food item each and place it into the baby’s mouth (cup). This sequence is repeated until the timer rings (about 30 seconds).

6. At the end of 30 seconds, the parents and baby birds should count the number of food tokens in the cup. Each baby bird should obtain at least 5 tokens of food in order for the baby to survive to the next round. After each round, the cup should be emptied. Teams can create a stash of food tokens behind them using a bucket, bag or bowl.

7. If a baby bird does not obtain enough food tokens, then the baby bird dies and the parent birds switch roles with the baby bird.

8. After a few rounds, explain to the students the dangers and challenges birds face when looking for food. At the beginning of a round, have each team randomly pick a situation card. Have the parent birds follow the instructions on the situation cards.

9. At the end of this activity, have the students discuss what they felt was the hardest challenge. How would a bird adapt to this situation? Discuss what actions humans can do to help alleviate some of the hazards birds face while trying to survive and raise their young.

EXTENSIONS

- Have students pick a bird species and research where they nest, what they feed their young, and any other important facts about how the bird raises their young. Have them compare this to another bird.

- Have students create nesting material “feeders” for birds in the spring when birds are looking for material to build nests. See Project BEAK activity “Home Helper.”

ASSESSMENT

- Have students give several benefits parent birds give their young while the young are in the nest.
- Have students create a list of possible dangers birds face and indicate how many are caused by humans. How can we reduce these dangers?

ADDITIONAL RESOURCES: WEBSITES

- USGS North American Breeding Bird Survey
www.pwrc.usgs.gov/BBS/

- Neighborhood Nest Watch
nationalzoosi.edu/conservationandscience/migratorybirds/education

(Click on Citizen Science, then on Neighborhood Nest Watch).

PERMISSIONS & CREDITS

- Project BEAK, its content, Teacher Resources and Activities are produced by the Nebraska Partnership for All-Bird Conservation; ©2009.



Situation Cards

Situation Card #1

Oh Geez, the adult male of the family ran into a glass window while hunting for worms. Sorry mister, you are out of this round. It's up to the female to take care of the brood.

Situation Card #3

Oh phewy! A brown-headed cowbird layed it's 3 eggs in your nest, now you both have to find food for all of the hungry young birds. Good luck!

Situation Card #5

Both of the adults flew right over a field that was sprayed with pesticides but, you didn't stop to eat. Keep up the good work of feeding the brood.

Situation Card #7

Great news, your family is doing well. Both you and the Mrs. are healthy and going strong. I know it's tiring but keep up the great work!

Situation Card #2

Great news, your family is doing well. Both you and the Mrs. are healthy and going strong. I know it's tiring but keep up the great work!

Situation Card #4

Cool, you and your mate came to a birdfeeder to find food for yourself and luckily the family cat was "indoors". Keep up the good work.

Situation Card #6

While the adult female was flying over a local wetland looking for bugs a poacher shot her and clipped her wing, tie your hands together behind your back since you are injured.

Situation Card #8

Great news, your family is doing well. Both you and the misses are healthy and going strong. I know it's tiring but keep up the great work! Your brood is depending on you!

Situation Cards, continued

Situation Card #9

Great news, your family is doing well. Both you and the misses are healthy and going strong. I know it's tiring but keep up the great work!

Situation Card #10

Opps, the female ran into a cell phone tower while looking for some grasshoppers. Her eyes were badly damaged. Cover both eyes with a blindfold.

Situation Card #11

Oh – Oh! The adult male was nicked by a car while crossing over the road on his way to snatch up a juicy worm. His leg is injured. Hop on one leg while trying to find food.

Situation Card #12

Great news, your family is doing well. Both you and the misses are healthy and going strong. I know it's tiring but keep up the great work!

Situation Card #13

Look Out! A stray cat is on the loose, and he's hungry. You have to avoid being caught by the cat while still trying to feed your brood.