

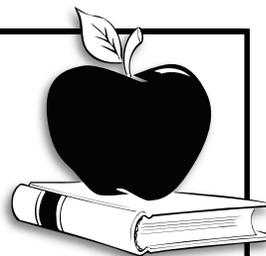
CLASS TIME: one class period

MATERIALS: string or fishing line; short, straight sticks, five to 10 inches long (dowels, coat hangers, sticks); a variety of objects gathered by students to represent different life needs of Neotropical migrants and needs and wants of people; old magazines to search for pictures that represent needs

COMMON CORE STANDARDS: English language arts
MS Writing 1, MS Writing 2, MS Writing 4, MS Writing 8,
MS Speaking and Listening 1, MS Speaking and Listening 2,
MS Speaking and Listening 4

NEXT GENERATION SCIENCE STANDARDS: 3-5-ETS1-1

TEACHER'S GUIDE



ACTIVITY

The Balancing Act

OVERVIEW

Students will create a mobile to demonstrate the balance between people and nature.

CONCEPTS

- People and some birds depend on forests for their needs.
- Birds are part of forest ecosystems.

OBJECTIVES

Students will be able to: 1) create a mobile representing the balance of nature as it applies to the needs of birds and the needs of people; and 2) recognize that people and birds share similar needs.

KEY POINTS

- Both humans and birds have needs, some of which are conflicting.
- People have additional things they want to make their lives more comfortable.
- These human needs and wants should be balanced with bird needs.

PROCEDURE

1. Read the poem, "The Chocoya," by Mauricio Chavarrío. Discuss the meaning of the poem and apply it to the unit. Tell students they'll be creating an image of a balance between bird needs and human needs today, only in a different medium.
2. Divide the class into cooperative groups. Have each group discuss and record: 1) the various things they think migratory birds need to survive; 2) the various things people need to survive; and 3) things they feel people want and use to make their lives more comfortable.
3. Have members of each group gather or make objects to represent each one of these needs or wants. For example, bird food could be represented by a seed, a dead insect or one made out of construction paper, toothpicks and glue. Human food could be represented by a picture of a piece of fruit, a plastic replica, an empty milk container or a peanut shell. Nesting habitat could be represented by twigs, a bunch of grass or other nest material, while human shelter could be represented by a photo or drawing of a house. Wintering habitat could be represented by a tree leaf or a picture of the sister country, a safe migration route by a map of the western hemisphere with the migration route indicated or a picture of clear skies. Nesting success could be represented by down feathers, a picture of eggs or a fledgling or an eggshell, while human reproduction could be illustrated by pictures of a crib and baby food, a teething ring or a baby rattle. Human **wants** could be illustrated by a picture of a television or an empty soda can. Students should be allowed to choose their own representative objects.
4. Using these objects, each group is to construct a physically well-balanced mobile. Everything **needed** by birds and humans **must** be represented. The more things that are added to the mobile, the harder it will be to balance. The groups must then decide if it is necessary (or possible) to include all of their human wants.
5. Assign a member of each group to be a Checker to be sure that all the members understand why each item is being included or left out. Have each group member sign the mobile when they are sure they understand it.
6. Choose one group member from each group to explain their mobile to the rest of the class. Discuss the balance desired between the needs of birds and human wants and needs. Point out that human decisions affect the balance and may help or harm birds.
7. Discuss these words from the journal of the famous preservationist, John Muir^{**}: "When we try

to pick out anything by itself, we find that it is bound fast by a thousand invisible cords...to everything in the universe."

8. Ask how the group process functioned.

DISCUSSION

1. Discuss what kinds of things the groups decided to include as "conveniences" and those they decided to leave out.
2. Was it easier to balance the mobile with less needs? Were there any human needs that conflicted with bird needs? Can people make decisions that will affect the balance so as to harm the birds? To help the birds?
3. How does this mobile illustrate the balance of nature, particularly birds and their habitat? How do humans affect the balance? Who created the mobiles? Do birds have the power to make decisions that affect the balance of the world they live in? Do humans? How many human needs could be met through forest resources? For birds, which needs could be met through the forest? Move one piece of a mobile by lifting it up or swinging it noticeably. Did affecting one factor in the balance affect others? Can people in the Midwest make decisions that affect people in Latin America or birds in Latin America?

MODIFICATION

Student groups could be instructed to build their mobiles such that the things they feel are most necessary to bird and/or human survival have to be placed near the top, the less necessary, luxury items at the bottom of the mobile.

ASSESSMENT

1. Students should complete mobiles.
2. Students should explain, either orally or in a written report, how their mobile works.

**Muir, John. 1911. *My First Summer in the Sierra*. Houghton Mifflin, New York.

THE CHOCOYA

By Mauricio Chavarría

Mauricio was a 10-year-old Nicaraguan boy when he wrote this poem.

One day I went up the mountain
and I saw a mango tree
and a chocoyo eating a ripe mango
and my mouth began to water
and I climbed the tree and started to pick mangos.

EL CHOCOYA

Un día fui al monte
y vi un palo de mango
y un chocoyo comiéndose un mango maduro
y se me hizo agua la boca
y me subí al palo a cortar mangos.

chocoya = a kind of parakeet; it flies in noisy flocks

Reprinted from *Nicaraguan Peasant Poetry from Solentiname* (1988) with permission of the translator, David Gullette, Simons College, Boston, Massachusetts.