GOING BATTY

Adapted from: *Caves and Karst Curriculum and Resource Guide.*
American Cave Conservation Association, Inc. 1994

GRADE LEVEL: Elementary/ Intermediate

SUBJECT: Life science

Related Colorado Content Standards: SC(2-6).1, SC(2-6).3

TIME: 30-40 Minutes

OBJECTIVE: The students will participate in a game to simulate the way a bat uses hearing to locate its prey.

MATERIALS: Blindfold

BACKGROUND: Bats are the only mammals that can fly. Other mammals that we think can fly, such as the "flying squirrel," do not actually fly, but glide from tree to tree.

Bats in Colorado are insect-eaters. Their main diet is "M&M's" (moths and mosquitoes). In one night each bat can eat as many as several thousand insects. Bats are able to catch the insects with their tail membrane and eat while still in flight. This incredible task is accomplished because of the bat's sonar or **echolocation**. In using echolocation they send out sound waves. When the waves hit an object, they bounce back like an echo to the bat's ears and funny-shaped nose. They are able to "read" what the waves have hit. All of this happens in less than a second.

PROCEDURE:

1. Have the students make a large circle by holding hands and spreading out. After the circle is made they can drop hands.

2. Pick one student to be a bat. This student will be blindfolded. Explain that the bat is being blindfolded so they can only use their hearing—bats are not blind, they do have eyes and can see! Next, choose a moth. Both the bat and moth are put into the circle.

3. The bat will begin to move around trying to tag the moth. The bat needs to use its echolocation and send out sound waves. To do this the bat simply says, "bat". Every time the moth hears the word "bat", it must respond by saying, "moth". The bat then listens to hear the reply to help find the moth. All students in the circle need to keep quiet so the bat can listen for its sound waves to come back.

4. To make the game more challenging, add several more moths or place a tree or two in the center. The trees can respond by yelling, "bat".

GOING BATTY (continued)

SUGGESTED FOLLOW-UP QUESTIONS:

- What did we learn from this activity?
- What are some incorrect beliefs people have about bats?
- How do bats benefit people and other living organisms?
- What other things would you like to know about bats?