

Lava Beds National Monument

Unit 2 – Activity A: Bat Adaptations

OBJECTIVES:

Students will compare human and bat anatomy and learn how physical structures in bats help them survive in their habitat.

MATERIALS:

- Video: **Kids Discover Bats**, Chapter One: Kinds of Bats (0:00-5:20)
- Blindfold
- Bat overhead (optional)
- Overhead Projector (optional)

SUBJECTS:

Life Science

SKILLS:

Compare and Contrast, acting out scenarios

METHOD:

1. Introduce this unit by saying that bats and humans, though very different, do have similarities. These differences in body parts between humans and bats allow bats to survive in a different environment than people.
2. Have children stand up and point to parts of their own body: head, mouth/teeth, eyes, nose, ears, hands, thumb, finger, arm, leg, feet, toe and toenails. Explain that bats have many of the same body parts that humans do, however, they use them differently than people.
3. You may use either the bat skeleton to point out analogous body parts or use the bat overhead to help illustrate the analogous body parts while passing around the bat skeleton. Have students stand up and point to their body parts that match the bats as you point to the bat model of choice.
4. Using the information in the “Teacher Information” section, explain to students which parts of the bat are similar to the human body and how bats use the same body parts differently than people: feet for hanging, hands for flight, tailbone for catching prey, ears and noses for echolocation.
5. Video Kids Discover Bats Chapter One: Kinds of Bats (0:00-5:20)
6. Have students act out bat and moth echolocation demonstration (10-15 min) 12-15 students minimum.

- A. Students form a protective circle around two students in this adaptation of Marco Polo. The student designated as the bat is blindfolded and claps to send out a sound wave. With each clap, the moth student must reply with a single quieter clap. The bat tries to tag the moth and the moth tries to avoid the bat. The circle of students provides protection for the blindfolded student by gently keeping them within the circle.

EXTENSION:

A. Further discuss adaptations of bats that do not live in North America. Excellent information can be found in any of the books included in this education kit. This will give students a broader range of adaptations to mix and match in the following activity.

B. Have students draw a bat with an adaptation that would be useful to eat a certain kind of food, live a certain place or get water in a special way. This could be a real bat and its' adaptations, or an imaginary bat as long as they can explain or label why the adaptation allows their fictional bat to survive.