

ANATOMY OF A BAT

OBJECTIVE:

The students will identify the structures and the functions of bats.

NGSS:**NGSS CONNECTION:**

MS-LS1-1, MS-LS1-2, MS-LS1-3

**MATERIALS:**

- Diagram of the bat (per student or group)
- Anatomy of a Bat information sheet (per student or group)
- Structure and Function Card Sort (per group)



TIME: 1 hour

Teacher preparation

- Copy a diagram of the bat anatomy for each student or group.
- Copy The Anatomy of a Bat information sheet for each student or group.
- Duplicate the card sort- Structure and Function on card stock. Laminate and cut apart. Need one per group.

Engage

Students can go to the following link to learn some information about bats. There is a lot of information at the site so allow students 10-15 minutes at this time. <https://www.batcon.org/about-bats/bats-101/>. This site will be revisited multiple times throughout the unit. Discuss with students what they learned about bats so far. If your students completed the Fact or Fiction survey from lesson 1, you could revisit the statements and clarify with students some of their misconceptions.

Explore

1. The teacher can choose to have students complete this activity individually or in groups.
2. Teacher hands out the two pages entitled Anatomy of a Bat and a copy of a diagram of a bat. Explain to the students that they will be reading about and identifying the anatomical parts of a bat.
3. The students will identify the parts of the bat on the diagram and discuss the special body parts that make bats so unique. After students have completed labeling the anatomy of a bat, check over their answers.
4. If students are not in groups, place students in groups of 3 or 4. Pass out the Structure and Function card sort. Have students first sort the cards into two categories-Structure and Function.
5. Have students will match the structure with the appropriate function of the bat. You can provide an answer key for students to self- check.

Explain

Ask the students the following questions:

1. What unique characteristics do bats have?
2. How are these characteristics advantageous to bats?
3. What parts of their anatomy assist bats in obtaining food? Assist them in flying?
4. How are bats and humans similar? Different?
5. What did you find surprising about the anatomy of a bat?

Evaluate

Have students discuss or record their answers to the following prompts:

- Three things that they have learned from this lesson.
- Two questions that they still have.
- One aspect of lesson that they enjoyed.

Elaborate

Students can use <https://www.batcon.org/about-bats/bat-profiles/> to research and describe how variations within a population can be an advantage or disadvantage to the survival of a population as environments change and for describing how variations of traits within a population lead to structural, behavioral, and physiological adaptations that influence the likelihood of survival and reproductive success of a species over generations.

ELPS

The students could be given the labeled anatomy of the bat and students write how they think each body part helps the bat survive. The unfamiliar body parts, such as the tragus and calcar, could be introduced by the teacher and discussed.