ACTIVITY 3
Bat Masks

Objectives: 1.10A

Learning objectives: Students will be able to sort bats into different dietary groups based on their physical characteristics. Students will understand the concept of adaptation in bats and the ways it helps them obtain food.

I CAN identify four body parts of bats that are specially made for their specific diet. (insect = large ears, fruit = large eyes, nectar = long tongue, blood = sharp teeth)

Bloom's Taxonomy Action Verbs: Identify, Categorize, Describe, Give examples, Review, Match, Recognize, Assess

Introduction

- Explain to your students that they will be learning about how bats' characteristics are an adaptation to let them specialize on certain types of food.
    - Point out these characteristics and their dietary association (slide #2)
        1. Insect-eating (insectivorous) bats have large ears for listening to insects crawling or flying.
        2. Fruit-eating (frugivorous) bats have big eyes to help them see colorful fruit better.
        3. Nectar-eating (nectarivorous) bats have a long snout and tongue for drinking nectar from flowers. (like hummingbirds!)
        4. Blood-eating (sanguivorous) vampire bats have sharp teeth for making small cuts on an animal's skin.

Activity Instruction

Materials list: printed masks on cardstock, scissors, string or sticks (for students to attached to masks), pencils

- Hand out *Bat Masks* to the students.
- Have students cut out the mask and tie it to their face with string (or attached a stick to the bottom).
- Explain to the students that they will be grouping the bats based on their diets, use their physical characteristics to figure out their diets (e.g., large ears, long snout, fangs, big eyes).
- Assign four corners in the room as each diet (use diet symbol signs)
    1) Insects = large ears

2) Fruit = large eyes
3) Nectar = long snout, long tongue
4) Blood = fangs

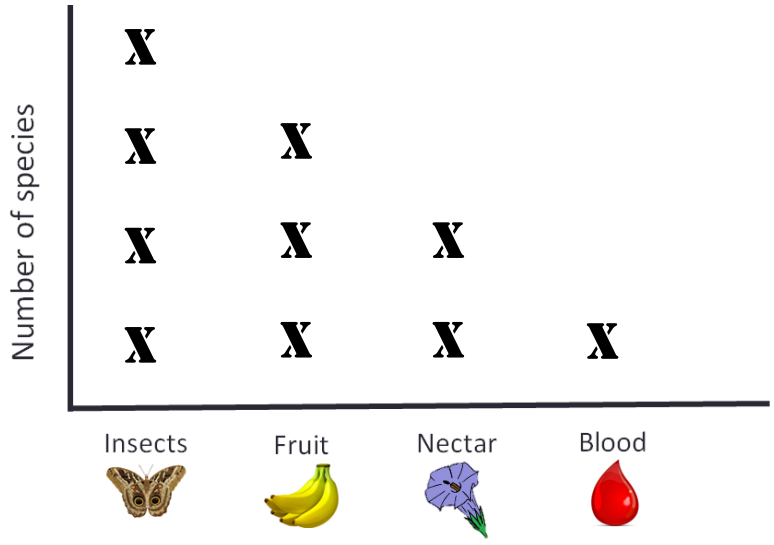
- Ask students to walk over to the group which they think they belong to [guide them if they go to the wrong group]

Group work

- Have students share amongst their group the bat that they were assigned and the major characteristic that they learned about from the video/the teacher's explanation
- Have students present in groups what they discussed and what they learned about their bat's physical characteristic/diet
- Have students fill in the diet of their bat species on the back of their mask.

Data collection

- Project blank graph on the white board (slide #3)
- Have students come up to board and write and X above the diet of their bat mask.
- Discuss the final species count:
  - Which diet is the most common? Almost all bats in the US eat insects.
  - Which diet is the least common? Only 3 species out of 1200 in the world drink blood!
- Have students share their findings in each group and write down the information for students to visually interpret the amount of bats that eat certain foods [e.g., the majority of bats are insectivores, and only a small number of bats drink blood]



Debrief

- Explain to students the importance of those characteristics in relationship to adaptation.
- Have students share their opinions on the activity (e.g., their favorite bat characteristic and its dietary association).
- Deeper discussion: have students share how they think these characteristics are associated with adaptation (e.g., _____ have _____ which is an adaptation to help them _____).

Extend

- Play the *Bat Song* and have students sing and use hand motions.
- Color masks and discuss where the different bat species live (printed on the back of the masks).

Mastery Check

1) Which of these body parts helps an insect-eating bat find food at night?
    a. Tongue
    b. Teeth
    c. Ears
    d. Eyes

2) Nectar-eating bats have long tongues. This helps them reach nectar in -
    a. Cups
    b. Flowers
    c. Fruit
    d. Holes

3) Some bats have large eyes. These bats like to eat -
    a. Small animals
    b. Fruit
    c. Flowers
    d. Insects