



# VPT's OUTDOOR JOURNAL

## Bats

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### Overall Unit Enduring Questions

- How have humans and their preconceived notions of “good” and “bad” affected biological diversity?
- Why is it important to maintain biological diversity by assisting threatened and endangered species?
- How are our concepts of the natural world formed through our experiences of media?

### Previewing Activities

- Begin class with a brainstorming activity using a circle map or other graphic organizer. If using a circle map, in the small circle in the center, write the word “bats.” Around that smaller circle, draw a larger circle and explain to the students that they are going to share everything they think they know about bats, and the information will be written in this larger circle. Around the larger circle, draw a box. Explain that the box is going to be their “frame of reference,” the section where they will put all of the sources for their facts about bats. Now ask students to tell what they think or know about bats, either scribing for them or having them come to the board or overhead to share. Have students make a copy for their own use during the lessons to come.
- Next introduce a literature piece that presents bats in a less-than-favorable light. *Dracula* is a perfect choice. If the full novel is not available or too time consuming, consider a shorter version, such as the excerpt that can be found in *Jamestown's Signature* series, volume F. Another option is to use just chapter 9 from Bram Stoker's *Dracula*, which is available online. Read the piece together.
- Now return to your circle map and highlight those qualities that were exemplified in whatever piece of literature you were using. For instance, Stoker's presentation of Count Dracula was that of a villain who could shift from a man to a bat, a wolf, or a mist. Any negative characteristics of bats, such as attacking humans or sucking blood, would be highlighted to reflect Stoker's depiction of a bat.

- Finally, put the following list of vocabulary words from the video on the board. Divide the class into twelve groups and have each group of students create one vocabulary card. On the front of the card should be the word with a picture showing the meaning of the word. On the back, have the students divide the card into four sections, one for the part of speech, one for definition written in the students' own words, one for any synonyms or words that come from the same root, and one for a sentence using the word in a way that shows its meaning.

Denizen	Lactating	Hibernacula
Corridors	Canopy	Forearm
Transmitters	Telemetry	Roost
Exfoliate	Microhabitat	Beneficial

Have the students share their pictures, definitions, and sentences with the class.

### **Viewing Activities and Questions**

- Place the three enduring questions on the board. Ask students to journal for a few minutes on one of those three questions. Have them share their thoughts.
- Instruct students to use their circle maps, created earlier, to highlight those qualities of bats that are mentioned in the video. If any qualities are mentioned that are not on the circle map, request that they add them in a different color as they are watching the video.

### **Post-Viewing Activities**

Return to their journal entries and their circle maps and ask them to reread them. Have their thoughts changed at all with regards to bats, biological diversity, or the media? Discuss why or why not.

### **Related Activities**

- Response to Literature/Test: Have students write a response to literature that compares and contrasts the presentation of bats in a published work such as *Dracula* to the reality of bats as presented in the *Conservation Corner* clip.
- Writing to Inform: Have students choose a threatened or endangered Vermont species to research. Write a research paper that shows how this species fills a specific role in its ecosystem.
- Writing to Persuade: Have students draft a persuasive piece that looks at the prejudice against bats and convinces the audience that bats are an important part of a healthy ecosystem.

- Vocabulary activities: Students could investigate that share prefixes with some of the vocabulary words presented. Words that begin with the prefix “bene” as in benefactor have opposites that begin with the prefix “mal.”

### **Extensions**

- One site that is useful for resources on bats is [www.batcon.org](http://www.batcon.org).
- The Biodome in Montreal has a habitat devoted to bats.

### **Vermont Teaching Standards**

#### Science

- 7.11 Students analyze and understand living and non-living systems as collections of interrelated parts and interconnected systems.
- 7.13 Students understand the characteristics of organisms, see patterns of similarity and differences among living organisms, understand the role of evolution and recognize the interdependence of all systems that support life.

#### Reading

- 1.3 Students read for meaning, demonstrating both initial understanding and personal response to what is read.
- 1.4 Students comprehend and respond to a range of media, images, and text (e.g., poetry, narrative, information, technical) for a variety of purposes (e.g., reading for pleasure as well as reading to develop understanding and expertise).

#### Writing

- 1.7 In written responses to literature, students show understanding of reading; connect what has been read to the broader world of ideas, concepts, and issues; and make judgments about the text.
- 1.8 In written reports, students organize and convey information and ideas accurately and effectively.
- 1.11 In persuasive writing, students judge, propose, and persuade.