

## BAT HIBERNATION

**OBJECTIVE:**

**The students will explain how behavioral adaptations, such as hibernation, increases the chances of survival of the species.**

**NGSS:** MS-LS1-4 (Animals)

**NGSS CONNECTION:**  
MS-LS2-1

**MATERIALS:**

- Bat Hibernation & Body Temperature Student Response sheet per each student
- Bat Hibernation Power Point presentation
- Provide each student: Student Response Sheet



**TIME:** 1-2 hours

## Teacher preparation

- Bat Hibernation & Body Temperature Student Response sheet, which includes data table and questions.
- Bat Hibernation PowerPoint for whole group discussion.
- Provide each student: Student Response Sheet.

## Engage

Show the 1-minute video about bats: Bats Die from Winter Storm - Texas Parks and Wildlife. <https://www.youtube.com/watch?v=0PVRdYfzYIU>

Facilitate a brief student discussion about the video content.

## Explore

Use the “Bat Hibernation” Power Point to facilitate the class discussion or it can be used individually by students.

The discussion should emphasize the importance of hibernation as a behavioral adaptation for survival of the species. Encourage students to discuss what they saw and wonder about regarding bat hibernation. If time, students can journal their thoughts.

## Explain

Students will read, analyze the data, and complete the Bat Hibernation & Body Temperature Student Response sheet. Per teacher preference, students may work with a partner and then share their findings with the whole group.

## Evaluate

Facilitate a class discussion about the challenges bats have when they hibernate and how this is a behavioral adaptation for survival. Students should be able to answer the following questions:

- Why do bats hibernate?
- What challenges come with hibernation?

- Do all bats hibernate?
- How can hibernation benefit the survival of the species for some bat populations?

## Elaborate (optional)

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Group Project for Hibernation- Student teams may research various bat species and their winter hibernation roosts. This will give students a connection to thermal energy.

## ELPS

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Group students strategically for students with various abilities. Students who need additional support should be paired with others. Teacher provides sentence frames for students during science talk and data analysis.