



Lesson Plan: Indiana Bat	
Lesson Objectives	Students will learn about the life and hardships of the Indiana Bat by creating a poster highlighting their plight and possible solutions.
Project Objectives	
Grade Level	5
Background Information	<p>The Indiana Bat is an endangered species that is very vulnerable to disturbances because they hibernate in very large amounts in only a few caves. They are endangered because of people disturbing their caves in the winter, loss of summer habitats, pesticides, and the disease: white nose syndrome (WNS). WNS is a deadly disease that affects hibernating bats across North America and is considered to be the worst wildlife disease outbreak in North America. Bats affected by this disease develop a white fungus that grows on their nose and they behave strangely when infected, by leaving their caves during the day and clustering near the entrances of the caves where they hibernate.</p> <p>Indiana Bats are mammals that give birth to young ones. They are very small. Their weight is about about a quarter of an ounce, which is comparable to the weight of three pennies. Although they are very small, their wingspan extends up to 9-11 inches. They have dark brown or black fur.</p> <p>Bats are very beneficial animals to people. They feed on insects, moths, beetles and mosquitoes that damage the crops. Without bats, farmers would be more dependent on toxic insecticides to control unwanted insects. They also play a role in pollinating flowers and dispersing seeds for plants such as bananas, avocados, cashews, and mangoes. They also help restore forests following</p>

	logging, fire, and other disturbances through seed dispersal.
Materials/Resources	Poster Paper Markers Colored Pencils Pencils Erasers Internet Resources
Vocabulary	White Nose Syndrome Mammals Disperse Logging Pollinate Wingspan Hibernate Endangered
Activities	<ol style="list-style-type: none"> 1. Students will use photos, drawings, and resources from books and internet. 2. In small groups students will develop a poster that will teach people about the Indiana bat's hardships and possible solutions.
Student Reflection	<ol style="list-style-type: none"> 1. How are Indiana bats similar to humans? 2. How are Indiana bats being threatened by humans? What can you do to prevent extinction of this species? 3. What did you find frustrating about this project? 4. Did you meet your standards for the project? Why or why not?

Resources

<https://www.youtube.com/watch?v=48fDg2Kcw9A>

http://www.biologicaldiversity.org/species/mammals/Indiana_bat/

<https://www.whitenosesyndrome.org/about-white-nose-syndrome>

<https://www.fws.gov/MIDWEST/angered/mammals/inba/index.html>

<https://www.edutopia.org/pdfs/stw/edutopia-stw-replicatingPBL-21stCAcad-reflection-questions.pdf>