

Animal Action Education

FUTURE INI PERIL

Endangered Animals in the United States

Teaching Guide - Grades 6-8

Lessons & Student Worksheets
Aligned with the Common Core



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PROGRAM OBJECTIVES

The lessons in Future in Peril: Endangered Species in the United States meet Common Core and other national standards in science, social studies, and the arts, including STEM and STEAM learning outcomes. Through cross-curricular lessons, students will apply life science concepts, practice critical reading comprehension strategies, conduct research, write informational and opinion pieces, and engage in role-play activities to explore concepts related to wild animals and endangered species.

The lessons in this program also meet IFAW's Animal Action Education cognitive and affective learning outcomes:

To reach the expected cognitive outcomes, students will

- learn key characteristics of specific animals,
- understand physical, social, and behavioral needs of specific animals, and
- distinguish between harmful and helpful human behaviors toward animals.

To reach the expected affective outcomes, students will be provided with opportunities to

- build their curiosity about animals,
- reduce negative perceptions about animals,
- express empathy toward animals,
- demonstrate the willingness to treat animals with respect, and
- demonstrate the willingness to take responsibility for the welfare and conservation of animals.

IFAW offers a wealth of free teaching resources on animals and conservation themes. Find them online at: www.ifaw.org/lessons



PROGRAM OVERVIEW & WARM-UP ACTIVITIES

Learning Outcomes

Through the informational student magazine, lessons and activities in this program, students will learn:

- what a species needs to survive
- that each species plays an important role in an ecosystem
- the definition of "endangered species"
- that many species of plants and animals are in danger of going extinct
- what is causing animals to become endangered
- about laws that protect endangered species

in the United States

- how human activities impact other species and their ecosystems
- about changes we could make in our behaviors to help endangered species

Essential Questions

- What causes a species to become endangered or threatened with extinction?
- What do species need to survive?
- Why does it matter if a species disappears?
- How are humans endangering species?
- Can we make a difference?

GROUND RULES ACTIVITY

Prior to discussions that may involve strong views or feelings, many teachers and students like to develop ground rules within their classrooms to promote positive listening, respect, and sensitivity to different points of view.

- 1. Ask the class to pair up and answer the following question: "How do people behave toward me that makes me feel confident and comfortable to talk with them about things that really matter to me?"
- 2. Ask the pairs to move into groups of six and share their ideas. Have them make a list of the behaviors that all six can understand and agree with. These may include:
 - They listen to me.
 - They don't laugh.
 - They don't shout what I say to other people.
- 3. Gather the whole class and ask each group to report their list—one behavior at a time. Check for understanding and agreement with the whole class.
- 4. Only write down those behaviors that everybody accepts and understands. Steer the group toward identifying clearly observable behaviors rather than broad concepts.

5. Display the list as a means to encourage individuals to take responsibility for their actions within the group.

WARM UP

To stimulate interest and focus students for the lesson, hold an open class discussion to find out what students already know about endangered species.

Ask questions like the ones below. Accept all reasonable answers in an effort to create a broadranged and free-flowing discussion of students' ideas and feelings.

- What does it mean for a species to be endangered?
- What, if anything, do you know about this topic?
- What animal or plant species do you know of that are endangered or extinct?
- Why do you think species are endangered?
- How do you think or feel about this?
- What, if anything, happens when an animal or plant species becomes extinct?
- How do you think this situation can be realistically improved?
- Why should it be improved?





Building Knowledge: Reading the Student Magazine

Overview: Students will be introduced to factual information and vocabulary about endangered species. Students will demonstrate reading comprehension strategies to understand content in informational text.

PREPARE FOR READING

- 1. Ask students what they know about reading nonfiction, or informational text. How is it different from reading a book or short story.
- 2. Give each student a copy of the **Student Magazine** A Future in Peril: Endangered
 Animals in the USA.
- 3. Open the magazine and point out that the writing is not structured as one continuous text. Instead, there are distinct sections. Ask the class to observe textual features that may help them with their reading and learning. Possible answers include titles, subtitles, pictures, and captions.
- 4. Point out the bolded words in the text. Tell students that these are vocabulary words and their definitions are at the end of the magazine in a glossary titled, "Words to Know."

READING THE MAGAZINE

Distribute a copy of **Worksheet 1: Reading Guide** to each student. While independently reading the Student Magazine, have students use the worksheet to note key terms, words, questions or ideas they want to ask about or remember from the text.

AFTER READING

Option 1: Class Discussion

- 1. After reading, hold an open class discussion to review what they have learned and answer any questions. What facts, statistics, or ideas made the biggest impression on students? Why?
- 2. Have them discuss these essential questions:
 - What causes a species to become endangered?
 - Why does it matter if a species disappears?

- How are humans endangering species?
- What can we do to help?

Option 2: Small Groups Build Key Ideas

The process is designed to build on each other's thinking, and not to enter into a dialogue.

- 1. Divide the class into groups of 3-4. Each group should choose a timekeeper (who also participates), who has a watch.
- 2. Have each student silently identify what s/he considers to be the most significant idea addressed in the article by highlighting that passage in the magazine.
- 3. When the group is ready, one student volunteers to go first by reading the part of the article that s/ he found to be most significant aloud to the group. This person (the presenter) says nothing about why s/he chose that particular passage.
- 4. The group should pause for a moment to consider the passage. Then, the other three participants each have one minute to respond to the passage saying what it makes them think about, what questions it raises for them, etc.
- 5. The first participant then has three minutes to state why s/he chose that part of the article and to respond to or build on what s/he heard from his/her colleagues.
- 6. The same pattern is followed until all four members of the group have had a chance to be the presenter and to have "the last word."

Extend Learning:

Homework or Extra Credit

In class or as homework, have students complete Worksheet 2: Do You Know?



Reading Guide

Name	Date:
Directions : As you read information about endanger want to remember. List important vocabulary words	ed animal species, jot down the key ideas that you sand write questions that you have.
Key Ideas	Facts/statistics
Endanger	red Species
Words/Terms	Questions

1. What does "endangered" mean?



- 2. What are two examples of endangered animal species in the United States?
- 3. What are two reasons animal species become endangered?
- 4. What can happen if one species becomes extinct?
- 5. How does the Endangered Species Act (ESA) protect species?

6. What does it mean to take a precautionary approach to conservation?

7. What can you do to help endangered species?





Endangered Species Research

Overview: Students will choose an endangered or threatened animal species in your region or in North America to research. Students will describe the species, its population status, what is causing it to be endangered and how people can help save this species. Student will use this research to create a persuasive poster for saving this endangered species using words and images.

- 1. Start by asking students to name some endangered species. Ask them to name endangered species that occur in the U.S. Finally, ask them to identify endangered species that occur within their state.
- 2. Show students where they can find out more information about endangered species that are specific to their state and/or county.
 - They can search species by state, county and the common or scientific name on the U.S.
 Fish and Wildlife Service database: https://www.fws.gov/endangered/
- 3. Working in pairs, have students select a wild animal species in your region or North America that is listed as endangered or threatened under the United States Endangered Species Act.
- 4. Distribute **Worksheet 3: Endangered Species Profile**. Explain that each pair will research their selected animal species and compile the information on their worksheets.
- 5. Each pair will use information from their worksheets to create a persuasive poster that they will present to the class. The goal is to inform people about the animal, the problems faced and what people can do to help protect them.
- 6. Each poster should include the following information:
 - Common and scientific names of animal
 - Population estimates and trends
 - A few interesting facts about the animal
 - Brief description of the animal's habitat and other animals that interact with this species
 - Reasons the animal is endangered

- Why it is important to protect the species
- Endangered Species Act solutions to help protect the species
- What individual actions people can take to help save the endangered animal
- 7. Each poster should also include drawings they create or pictures of the animal from the Internet or other sources. Since students vary in their artistic abilities, let them know that they will not be graded on which option they choose, but on the overall creativity of their design, layout, message, and impact.
- 8. Have each pair present their poster in class. At the end of each presentations, review and reinforce what students learned, asking questions such as:
 - What has caused this animal to become threatened or endangered?
 - What other animals could be affected if this species becomes extinct?
 - How does the Endangered Species Act (ESA) protect this species?
 - What can people do to help this species?

Extend Learning: Homework or Extra Credit

- Have students identify a related species in the same region that isn't endangered and determine why. What is the difference between the two species in terms of population, habitat, and other factors?
- Have students compare and contrast the causes of their species decline with the causes identified for two other species presented by classmates. *How are they similar or different?*



Species Name:	Scientific Name:		
Interesting facts about the species:			
Description of habitat and other species th	is animal interacts with:		
Population estimates and trends:	Reasons that this species is endangered:		
Reasons that it is important to save this sp	ecies:		
U.S. Endangered Species Act solutions to help this animal species survive:			
What individuals can do to help protect these animals:			



Habitat Eco-investigation

Overview: Students comparing three locations around the school to assess the level of habitat destruction and develop a plan to minimize habitat loss. Students will: Observe that loss of habitat is a main cause in endangered species, and explain the process; Investigate/describe the effect human development has on habitats; Use critical thinking skills to balance human inhabitance and habitat preservation.

PREPARE

- Gather materials: Worksheet 4: Habitat Data Sheet; Clipboards; Writing utensils
- Choose three locations around the school (or nearby the school) for students to investigate.
 - 1. A location that has been minimally altered.
 - 2. A location that has been moderately altered.
 - 3. A location that has been significantly altered.

PROCEDURE

- 1. Distribute the data collection worksheets to students, explaining that will be evaluating three disturbed areas for habitat loss.
- 2. Before taking the class outside, discuss the following concepts with the students: habitat destruction, biodiversity, native species, introduced/invasive species.
- 3. Show students the three locations you've identified for them to evaluate and have them write down their observations by filling in the data sheet.
- 4. When students return to the classroom, discuss the differences and similarities among the three locations.
- 5. Have students work in groups and develop a plan on how they could redesign the significantly altered location to conserve biodiversity while still maintaining its function. The plan should include a description and picture of the newly designed area.
- 6. Have students present their ideas to the class.

7. Alternatively, if observable areas are not available around the school grounds and if a trip to nearby sites is not possible, the teacher can display pictures of areas with different levels of destruction for the students to evaluate.

DISCUSSION

- Was it easier to find native or introduced species in each of the habitats? Why?
- What are the consequences to biodiversity when habitats are altered?
- Can there be a balance between nature and development? In what ways can areas be altered to maintain more of the biodiversity?

Extend Learning: Homework or Extra Credit

Have students evaluate one of the areas with different interests in mind – how would this area be assessed if it were designed to benefit only one constituency, such as:

- a mayor,
- a home owner,
- a business owner.
- a fisherman,
- a hunter,
- an eco-tourist.



Habitat Data Sheet

Name	Date	
Location A:	% Altered:	
Description of Location:	Description of Location Prior to Distr	arbance:
Native Species	Non-native species	
Location B:	% Altered:	
Description of Location:	Description of Location Prior to Distr	ırbance:
Native Species	Non-native species	
Location C:	% Altered:	
Description of Location:	Description of Location Prior to Distr	arbance:
Native Species	Non-native Species	
	I	



Endangered Species Debate

Overview: Students debate opposing viewpoints associated with endangered species and their protection. Students will: have experience researching and presenting a controversial issue; understand and explain the causes surrounding species extinction; learn to work collaboratively within a group; use critical thinking skills to defend a point of view.

- 1. Begin by reviewing with the class, information about the Endangered Species Act, including success stories and challenges, on pages 8-12 of the **Student Magazine**.
- 2. Divide students into groups of six.
- 3. Explain that each group will be debating against another group on a topic of debate related to endangered species. Assign groups a topic for the debate or have students come up with their own topics. Some topic ideas include:
 - Is species extinction a serious threat or a natural, inevitable process?
 - Does saving endangered species positively or negatively impact people?
 - Should people with "special interests" be allowed to prevent endangered species protections?
- 4. Students should decide what side of the debate they want to be on. Explain that some students may need to present an opinion opposite of their belief.
- 5. Have groups work together to research the topic chosen for their debate.
- 6. Each team should prepare an opening statement to present their position on the topic, accompanied by two-four PowerPoint slides.
- 7. On the day of the debate, each team will have six minutes of uninterrupted time to present their point of view, using the slides to help explain and support their position on the topic.
- 8. Each member of the team must equally participate in the opening presentation. When it's time for the team to state its point of view, one speaker

- from the team takes the floor. That speaker can speak for no more than one minute, and must "tag" another member of the team to pick up the argument before the minute is up. Team members who are eager to pick up on or add to the team's argument, can put out a hand to be tagged. That way, the current speaker knows who might be ready to pick up the argument. No member of the team can be tagged twice.
- 9. After both sides have completed their opening statements, give each team five minutes to work with their teammates to prepare a rebuttal to the position presented by the other team.
- 10. Allow each side another three minutes to present their rebuttal.
- 11. Close the debate by letting each team have another two minutes to summarize the main points of his or her team's position.
- 12. Open the debate to questions from the rest of the class.

Extend Learning: Homework or Extra Credit

Have students summarize both sides of the issues debated in class. Then have them answer the following questions:

- Which viewpoint do you agree with and why?
- Why is it important to know both sides of an issue?



Take the Pledge Protect Endangered Animals!

Dear Family,

The _____ grade class at _____ school has been learning about endangered animal species in the United States. Currently more than 1400 animal species are officially considered threatened or endangered with extinction in our country. There are many ways your family can help to protect animals whose habitats have been threatened by human activities. Read through the list below, then come up with more ideas of your own and take the pledge to help!

1. Be Aware and Take Care - Animals and their Homes are Everywhere!

- Slow down, go around, step over, do not disturb, tread lightly
- Be tolerant of the wild animals that share your neighborhood

2. Change Course

- Reduce what we throw away; Recycle & Reuse items
- Walk, cycle, and use public transport; Buy foods grown locally
- Don't keep wild animals as pets or buy wildlife products as souvenirs when on vacation.

3. Keep it Clean

- Protect animal habitat by picking up a local beach, park or neighborhood
- Dispose of garbage and hazardous waste properly.

please comi	PLETE THIS FORM AND RETURN TO YOUR CHILD'S TEACHER.
STUDENT NAME	and his/her family pledge to help protect animals and habitat
by taking the following actions:	
Parent/Guardian Signature:	

