

**RESOURCE LIBRARY**  
ACTIVITY : 45 MINS

## Big Cats' Big Threats

Students read the National Geographic Education article, “Big Cats’ Big Problem.” They answer questions about the threats to big cat populations and how the Big Cats Initiative is working to address those threats.

### GRADES

3 - 5

### SUBJECTS

*Biology, English Language Arts, Geography, Human Geography, Physical Geography*

### CONTENTS

2 PDFs, 1 Link

## OVERVIEW

Students read the National Geographic Education article, “Big Cats’ Big Problem.” They answer questions about the threats to big cat populations and how the Big Cats Initiative is working to address those threats.

For the complete activity with media resources, visit:

<http://www.nationalgeographic.org/activity/big-cats-big-threats/>

## Program

## DIRECTIONS

**1. Activate students’ prior knowledge about big cats.**

Discuss with students what they think of when they think of “big cats.” Ask: *What images come to mind? What types of big cats can you think of? Where do they live?* Elicit from students that big cats include lions, tigers, leopards, cheetahs, jaguars, ocelots, cougars, and other large predatory cats. The largest of the big cats—lions, tigers, and leopards—live in parts of Africa and Asia.

## **2. Have students complete an Anticipation & Reaction Guide and read an article.**

Distribute a copy of the handout "Big Cats' Big Problem" and the worksheet Anticipation & Reaction Guide to each student. Read aloud the directions. Explain that students will agree or disagree with the six statements in the chart before, during, and after reading the article. Before reading the article, tell students to read the statements in the chart and decide if they agree or disagree. Have them write A or D in the ME column. Next, have them discuss the statements in small groups. Tell each group to decide if it agrees or disagrees. Have groups write A or D in the GROUP column. Tell students they may not all agree, but they must come to a general consensus. While reading the article, have students decide if they agree or disagree based on what they read. Have them write A or D in the ARTICLE column. After reading the article, have students review the answers in the ME, GROUP, and ARTICLE columns. Discuss the statements and article as a whole class. Clarify any misconceptions.

## **3. Have students reflect on and discuss what they learned about the decline of big cats.**

Using what they learned from the article and the discussion, ask students to list on the board at least three ways human-cat conflicts contribute to the decline of big cat populations. Elicit from students that humans and big cats compete for space and food. This means that humans and lions come into conflict when human populations increase and encroach on lion habitats, when livestock are killed by lions, and when lions are poached for sport or retaliation. Ask: *Why are big cat species important and why should they be protected?* Elicit from students that, as top predators, big cats are very important species that keep ecosystems balanced and healthy. Ask students to list two ways researchers and conservationists are working to address human-cat conflicts and protect big cats. Elicit from students that the work of researchers like Dr. Pimm is helping us better understand big cat habitat loss, livestock kills, and poaching. The work of conservationists and projects like the

Big Cats Initiative are helping to find solutions to these human-cat conflicts. Explain that conservation efforts that include education, habitat preservation, legislation, and enforcement measures help protect big cat populations.

#### 4. Explain how students can become involved in National Geographic's Big Cats Initiative.

Display the National Geographic Big Cats Initiative website. Explain that the site includes videos, images, and articles that will teach students more about the project and how they can become involved in halting the decline of big cat species throughout the world. Encourage students to access the site on their own.

## Informal Assessment

Review students' completed worksheets to assess their comprehension of the article and the issues surrounding the decline of big cat populations worldwide.

## Extending the Learning

Have students use Google Earth to locate the big cat habitats described in the article (Tete Province in Mozambique, Zambia; and Tarangire National Park in Tanzania). Have them try to identify where the habitat looks natural and where it looks like it has been developed or cultivated.

## OBJECTIVES

## Subjects & Disciplines

### Biology

- English Language Arts

### Geography

- Human Geography
- Physical Geography

## Learning Objectives

Students will:

- list at least three ways human-cat conflicts contribute to the decline of big cat populations
- explain why big cat species are important and should be protected
- describe two ways researchers and conservationists are working to address human-cat conflicts and protect big cats
- state the purpose of the Big Cats Initiative

## Teaching Approach

- Learning-for-use

## Teaching Methods

- Discussions
- Information organization
- Reading

## Skills Summary

This activity targets the following skills:

- 21st Century Themes
  - Global Awareness
- Critical Thinking Skills
  - Analyzing
  - Understanding
- Geographic Skills
  - Acquiring Geographic Information
  - Answering Geographic Questions

## National Standards, Principles, and Practices

### NATIONAL GEOGRAPHY STANDARDS

- Standard 1:

How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

- **Standard 14:**

How human actions modify the physical environment

- **Standard 16:**

The changes that occur in the meaning, use, distribution, and importance of resources

- **Standard 3:**

How to analyze the spatial organization of people, places, and environments on Earth's surface

- **Standard 8:**

The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

## **Preparation**

## **What You'll Need**

### **MATERIALS YOU PROVIDE**

- Pencils

### **PHYSICAL SPACE**

- Classroom

### **GROUPING**

- Large-group instruction

### **OTHER NOTES**

Before starting the activity, read the full version of the National Geographic Education article, "[Big Cats' Big Problem.](#)"

## **BACKGROUND & VOCABULARY**

# **Background Information**

The largest of the big cats—lions, tigers, and leopards—live in parts of Africa and Asia where their populations are in decline, mostly due to human threats. As human populations increase and encroach on big cat habitats, humans and cats are forced to compete for food and space. Additional conflicts include illegal poaching and retaliatory killings when big cats prey upon livestock. The work of conservationists and projects like the Big Cats Initiative are helping to find solutions to these human-cat conflicts.

## Prior Knowledge

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## Recommended Prior Activities

- None

## Vocabulary

Term	Part of Speech	Definition
Big Cats Initiative	<i>noun</i>	program of the National Geographic Society that supports on-the-ground conservation projects, education, economic incentive efforts, and a global public-awareness campaign to protect big cats and their habitats.
boma	<i>noun</i>	livestock enclosure traditionally made of thorny bushes.
conservation	<i>noun</i>	management of a natural resource to prevent exploitation, destruction, or neglect.
conservation ecology	<i>noun</i>	study of Earth's biodiversity, with the goal of protecting species, habitats, and ecosystems. Also called conservation biology.
crowdsourcing	<i>noun</i>	technique that enlists the public to assist with a specialized task.
Google Earth	<i>noun</i>	computer and mobile application used to access and explore virtual globes, maps, and other geographic information.
habitat	<i>noun</i>	environment where an organism lives throughout the year or for shorter periods of time.
Landsat	<i>noun</i>	American satellite that circles the Earth around 14 times a day.
livestock	<i>noun</i>	animals raised for human use.
migration corridor	<i>noun</i>	area connecting wildlife habitats disturbed and interrupted by human activity. Also called a green corridor.
national park	<i>noun</i>	geographic area protected by the national government of a country.

<b>Term</b>	<b>Part of Speech</b>	<b>Definition</b>
predator	<i>noun</i>	animal that hunts other animals for food.
savanna	<i>noun</i>	type of tropical grassland with scattered trees.

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## For Further Exploration

### Websites

- [National Geographic Education: Big Cats' Big Problem](#)
- [Duke University: Nicholson School of the Environment—Faculty: Dr. Stuart Pimm](#)
- [National Geographic Animals: Big Cats Initiative](#)



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