

# The Field Museum Education Department Presents

## *African Biodiversity Grades 6-8* **Educator Guide**

The Field Museum Education Department develops on-line Educator Guides to provide detailed information on field trip planning, alignment with Illinois State Goals and Learning Standards, as well as hands-on classroom activities to do before or after your visit to the Museum.



## Illinois State Standards

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Science State Learning Standards: 12, 13  
 Language Arts State Learning Standards: 4, 5  
 Social Science State Learning Standards: 17

## African Biodiversity

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The African continent is home to a rich diversity of habitats that support an amazing variety of plant and animal life (“biodiversity”), as well as human cultures. Use this guide to explore the biodiversity and cultural diversity of Africa in our *Africa Exhibition*.

### Pre-visit Activities:

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1. Discuss and define vocabulary terms, along with historical events, that students will encounter throughout the exhibit.

- Environment
- Culture
- Species
- Biomes (*savanna, desert, and rain forest, etc.*)
- Conservation
- Natural resources
- Habitat
- Endangered Species
- Extinction
- Climate
- Slavery
- Amistad
- Biodiversity

2. Compare and contrast the environment (i.e. climate, species diversity, agriculture, etc.) of the United States with that of Africa.

1. How do we/they use the natural resources found in our/their environment in our/their daily life? (i.e. oil for fuel and heat, leather for shoes, rice for food)
2. What biomes are found in the United States and Africa?
3. Over time the environment of the Earth has changed. Throughout history what biomes have existed in the United States and Africa? Do the biomes continue to change?

3. After the Senegal exhibit, students will come upon a campsite exhibit. This is an interactive and exciting portion of the exhibit that focuses on the steps of the scientific method. Review the steps before visiting the museum. Ask the students to develop hypotheses about which biome, the savanna, the rainforest, or the desert, is the most biodiverse. Students will be able to find evidence to support their hypotheses within the exhibit. Have students use Activity Sheet #2, to aid in them in this process.

4. In the Harris Educational Loan Center you can check out experience boxes that will enhance your students learning here at the museum and in your classroom. These materials are hands-on activities that correlate with the Africa Exhibit. All of the resources are available for up to 3 weeks at a time.

**Note:** To register call 312-665-7555 or email [harrisloan@fieldmuseum.org](mailto:harrisloan@fieldmuseum.org) for more information.

## Field Trip Activities:

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### 1. Mapping Skills

Students will visit many countries of Africa during their journey through the exhibit. Using a simple map of the continent (additional resources can be found at [www.nationalgeographic.com/maps](http://www.nationalgeographic.com/maps)), ask students to color the countries that they visit during their tour of the Africa exhibit. Students can shade in the biomes of the continent to emphasize the diversity of the landscape and environment.

2. Provide each student with a copy of “African Biodiversity Student Activity Sheet. Using the questions as a guide, ask students to research and collect information from the exhibition.

3. Hands-on activity stations are found throughout the halls of the museum. At these stations, facilitators will guide the students through an investigation with touchable objects related to the surrounding exhibit. The Africa Mega Map, The 70 Days of Mummification, Large Senet Game, and Story Time are offered several days a week in Stanley Field Hall.

**Note: These and other activities are subject to change without notice and should be confirmed at the museum information desk upon arrival.**

## Post-visit Activities:

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1. Students will write a persuasive essay based on the answer from their hypotheses about biodiversity stated in the pre-visit. Students will utilize their Student Activity Sheet to assist them in completing this essay. Students will need to provide evidence from the exhibit, in order to successfully complete the essay.

2. Not all countries of Africa were represented in the Africa exhibit, particularly Northern and Southern Africa. The students can create their own exhibit highlighting the environment, wildlife and culture of these areas. This can be accomplished by creating a virtual exhibit on the internet. Students may also utilize other technologies available to complete this task, or students may construct a traditional 3-dimensional display.

### Credits:

*Support for Year of Biodiversity and Conservation programming provided by the City of Chicago, Richard M. Daley, Mayor; Department of Environment, N. Marcia Jiménez, Commissioner.*

*Science in Action for Conservation, made possible by a grant from NASA's Earth Science Education Program is a video available FREE to all schools and organizations. For more information visit us at [www.fieldmuseum.org/scienceinaction](http://www.fieldmuseum.org/scienceinaction)*

## Student Activity Sheet: Biodiversity

1. In Africa, which type of biome do you think supports the greatest biodiversity of animals and plants (number and variety)?
  - a. Savanna
  - b. Rainforest
  - c. Desert
2. What are your reasons for your hypothesis?
3. In this exhibit you will explore the savannas, desert, and rainforests of Africa. Use the exhibits to collect data about each type of biome. Then answer the questions at the bottom of this sheet.

### 4. Savanna

Variety of Species (Plants and Animals)	Adaptations of Species (Plants and Animals)	Describe the Climate and Environment
<i>Example: Tall Grasses</i>	<i>Example: Giraffe-Long Neck</i>	<i>Example: Cool Temperatures at night</i>

### 5. Rain Forest

Variety of Species (Plants and Animals)	Adaptations of Species (Plants and Animals)	Describe the Climate and Environment

## Pre-visit Activities:

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### 6. Dessert

Variety of Species (Plants and Animals)	Adaptations of Species (Plants and Animals)	Describe the Climate and Environment

7. Does the data you collected about each biome support or invalidate your hypothesis? Explain.
8. What similarities did you see in the adaptations animals and plants have made to live in the desert, the rainforest, or the savannas?
9. What are some similarities between the biomes of Africa and the biomes of North America?
- 10.. What are some differences between the biomes of Africa and the biomes of North America?
11. What was the most interesting feature of the Africa Exhibit?
12. What causes loss of species? What is being done to save species in Africa?