

FROM THE PRODUCERS OF WILD SAFARI

# AFRICAN ADVENTURE

SAFARI IN THE OKAVANGO



3D



TEACHER'S RESOURCE GUIDE

## Dear Educator:

For many of us, Africa remains a distant and inaccessible place. Now, however, there is an opportunity to visit one of the most unique wilderness areas on this fascinating continent, the Okavango Delta, in a new 40-minute giant-screen film from nWave Pictures, *African Adventure: Safari in the Okavango*.

The Delta, created by the flood waters of the Okavango, is so large it can be spotted from deep space like a giant hand, bringing relief to this desolate region. Little-known to the outside world until a few decades ago, this secluded 20,000-square-km maze of lagoons, channels and islands forms one of the most beautiful and pristine wildlife reserves on Earth.

Led by South African zoologist Liesl Eichenberger, viewers join world-renowned wildlife filmmaker Tim Liversedge for a unique photo safari in the flooded desert. Through stunning 3-D photography, they will get “up close and personal” with a great variety of big-game animals, crocodiles, hippos, elephants, and lions, and observe one of the largest bird concentrations on Earth.

This teacher’s resource guide developed by Young Minds Inspired (YMI), based on the film *African Adventure: Safari in the Okavango*, will assist in meeting educational goals based on U.S. national standards in science and geography for students in grades 5-8, while at the same time expanding student understanding of ecology and language arts skills. Teachers of students ages 8-11 can also adapt the material to meet their students’ abilities.

Prepared with the help of professional educators like yourself, this resource guide can also be used in conjunction with a previous nWave release, *Wild Safari 3D: A South African Adventure*. All the program activities, however, are designed to stand on their own. Please feel free to share the material with other teachers at your school, and to modify and duplicate the copyrighted activity sheets to suit your students’ abilities.

Sincerely,

Ben Stassen  
Film Director

## Overall Program Objectives

- To give students a glimpse of the Okavango Delta, a unique and fragile ecosystem found in Africa, and to appreciate conservation efforts aimed at protecting it
- To motivate students’ interest in the animals, habitats, and geography of the Okavango Delta
- To develop students’ skills in science, geography, and language arts

Please see the individual activity instructions for activity goals.

## Target Audience

This program has been designed, with teacher input and modifications, for students ages 8-14. Suggestions are included where applicable for adapting the activity to younger students (ages 8-11) and older students (ages 12-14).

## How To Use This Guide

- Review the materials and schedule them into your classroom lessons. Screen the film at your local giant-screen theater to use it with students.
- Distribute copies of the three student activity masters. The teacher’s guide pages contain the answers to the activities. Before beginning each activity, invite students to design essential questions of interest in relation to the geography of the Okavango Delta (**Activity 1**), its animals (**Activity 2**), and survival strategies of animals as well as overall conservation efforts being made in the region (**Activity 3**).
- Use the resources on the back cover of this guide to facilitate research. Challenge students to work cooperatively in sharing research so that they can learn from each other.
- Use the Related Activities individually or in sequence for further exploration and discussion of the concepts presented.

## Film Synopsis

*African Adventure: Safari in the Okavango* offers viewers the ultimate giant-screen 3-D adventure of going on a photo safari in the Okavango Delta without ever leaving the comfort of their local cinema. The immersive beauty of 3-D photography puts the audience in the boat with zoologist Liesl Eichenberger and wildlife filmmaker Tim Liversedge as they explore this unique region of our planet untouched by civilization.

Departing from the panhandle in the North, where the Okavango River meanders through a 10-mile-wide mat of papyrus, viewers will venture into the heart of the Delta and will come face-to-face with hippos, crocodiles, elephants, lions, and many types of antelopes.

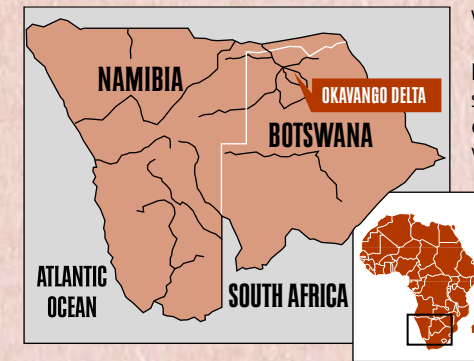
Through the wonders of giant-screen 3-D technology, viewers will get a sense of “being there,” developing a greater appreciation of why conservationists like Liversedge have been striving their entire lives to ensure the Okavango Delta is treated like a national treasure worth protecting for generations to come.

	Activity		
	1	2	3
<b>Geography:</b> Places and regions	•		
<b>Science:</b> Populations and ecosystems		•	•
<b>Science:</b> Diversity and adaptation of organisms		•	•
<b>Language Arts:</b> Using viewing skills/strategies to interpret visual media	•	•	•

# Safari to the Okavango Delta!

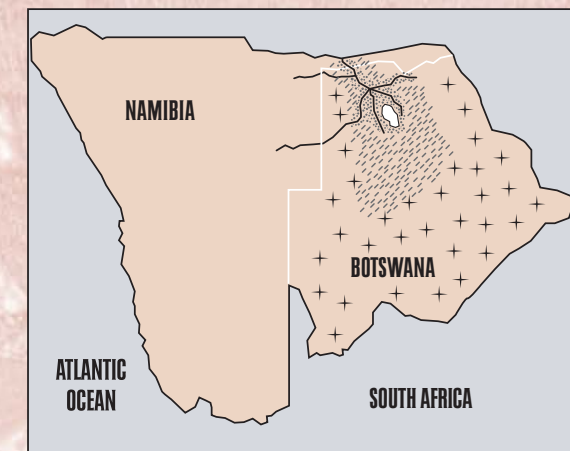
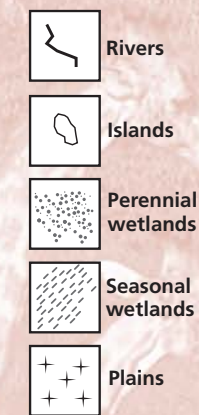
## ACTIVITY ONE

**Goal:** To introduce students to the Okavango Delta, as explored in the giant-screen film *African Adventure: Safari in the Okavango*, and to identify features of the region and some of the wildlife that make this area their home.



Discuss with students features of the Okavango Delta. Using the maps on the activity sheet, point out to students where the Okavango Delta is in Botswana and where it is on the continent of Africa. Tell them that the topographical features of the Okavango include a floodplain, a network of islands and swamps, and grassland in the areas that have only seasonal flooding.

Discuss with students some unique features of the Delta. Point out that the Okavango River begins calmly, traveling through the Panhandle, a long, grassy plain. Eventually, the river opens up into the heart of the Delta, characterized by an intricate maze of swamps and islands. The Delta fans out into two sections—one that is warm and swampy all year long and a second part that is flooded by the Okavango River each winter. While this second area is green and lush after the flooding, it is drier the rest of the year.



Write students’ suggestions on the chalkboard.

Now challenge students to go on an information safari. Have students pair off as teams as they answer one, two, or all three of the questions below. (This will vary with the age and ability of the student.)

Younger students may want to focus on the animals only, while older students can attempt all three questions.) Set the activity up like a game. Whichever team completes the activity sheet first—and correctly—wins!

1. Have students fill in the map on the sheet showing the location of the Okavango Delta region in Africa and within Botswana itself.
2. Have students label the topographical features using a legend they create for the detailed map of the Delta (see sample at left).

Options include fish and water birds in the Panhandle; hippos and crocodiles in the swamps (and elephants as seasonal occupants); and buffalo, elephants, lions, giraffes, impalas, antelopes and leopards living in the wooded areas that fringe the larger Delta areas and its dryland edges.

Features are shown on the map at left.

## Related Activity

Challenge students to develop a class mural showing what they have learned about the Okavango Delta. The mural should show the Delta’s different habitats and the wildlife living in each one. Students can work in teams, with each team responsible for one habitat.

## ACTIVITY TWO

# Wildlife of the Okavango

**Goal:** To foster critical thinking strategies by having students research the habitat, physical characteristics, diet, predators, etc., of one animal that lives in the Okavango Delta so that they can develop an accurate, informative display similar to the ones exhibited at zoos or museums.

## Part A. Animal Adventure

Building on what students learned in **Activity 1**, have them pick an animal they would like to explore in-depth, completing information on the activity sheet about the animal’s habitat, its physical characteristics, diet and predators, as well as one or two interesting facts. Answer guidelines are coded as **Y** for younger students and **O** for older students.

### 1. Animal’s habitat

- Y:** Description of the environment
- O:** Identification of type of environment (for example: river, perennial wetland)

### 2. Animal’s physical characteristics

- Y:** Description of size, shape, color, and any distinctive features
- O:** Distinguishing physical characteristics, social groupings (whether the animal lives alone or in a group), and its reproduction habits

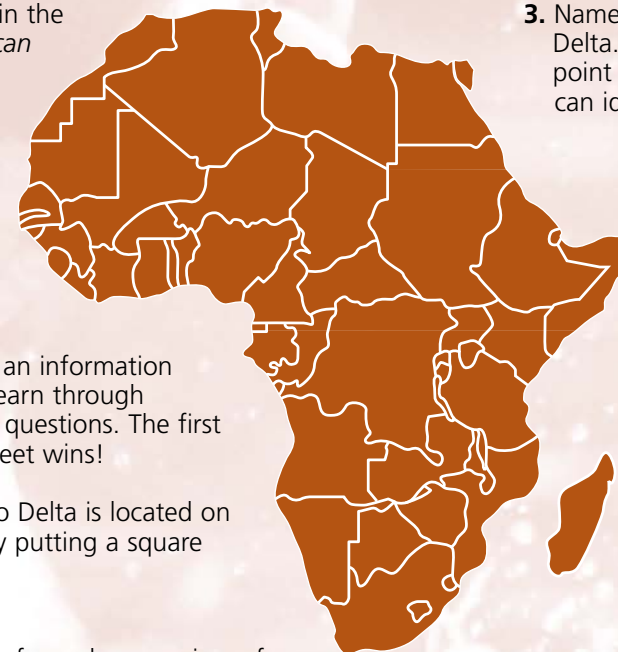
### 3. Animal’s diet

- Y:** One or two examples of what the animal eats
- O:** At least three examples of what the animal eats as well as its hunting habits

ACTIVITY ONE

# Safari to the Okavango Delta!

The Okavango Delta, featured in the new giant-screen 3-D film *African Adventure: Safari in the Okavango*, is one of Africa's geographical treasures. A land area that experiences seasonal flooding, the Delta is an oasis in the dry Kalahari Desert. Many animals make this unique area their home.



3. Name at least one animal that lives in the Delta. (**Note:** Your team gets one bonus point for each additional Delta animal you can identify!)

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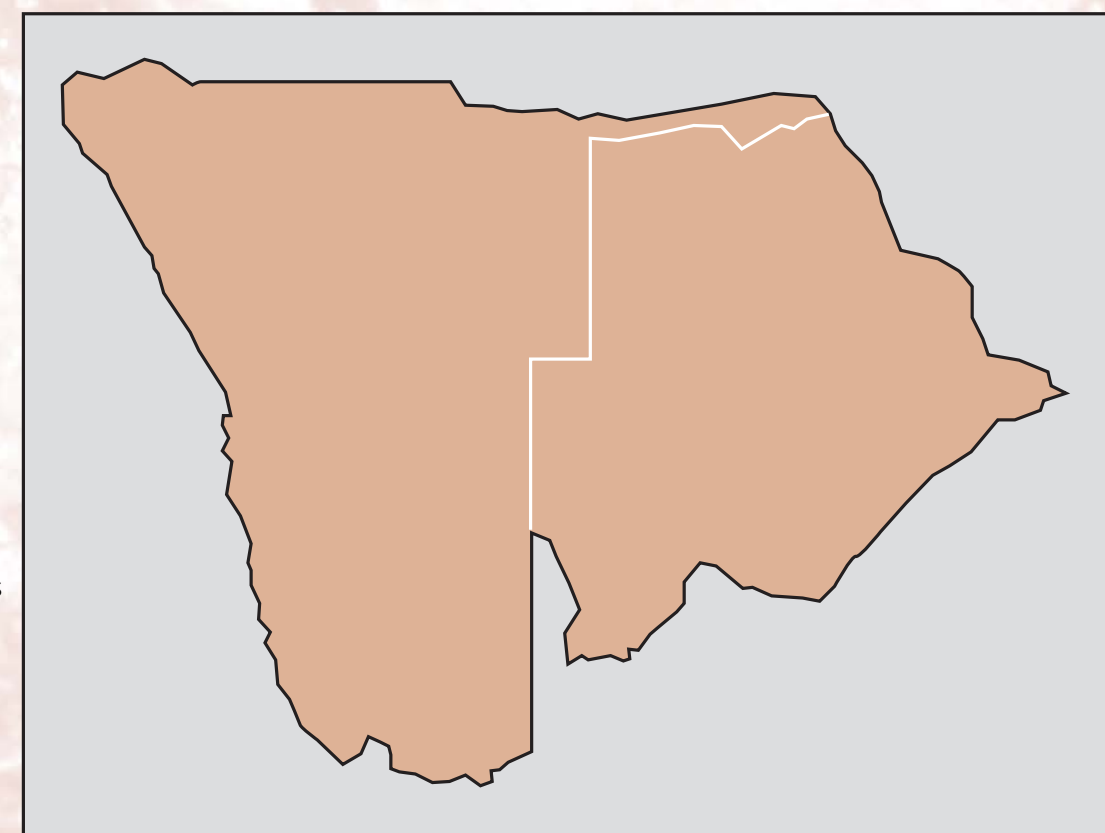


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After your teacher reviews this area, pick a partner and go on an information safari! Using information you learn through research, answer the following questions. The first team to correctly fill out the sheet wins!

1. Identify where the Okavango Delta is located on the map of Africa at right by putting a square around it.
2. Now look on the map below for a close-up view of the Okavango Delta. Build a legend for the features in the region and use it to show each of these geographical areas on the map:

- Rivers
- Islands
- Perennial wetlands
- Seasonal wetlands
- Plains



#### 4. Interesting facts about the animal

**Y/O:** Have students research answers to questions of their own interest.

### Part B. Animal Attractions

Based on the information on their sheets, ask students to develop a sign for an exhibit about the Okavango Delta at a zoo or a museum. Encourage students to be creative and to use both words and pictures to convey the information. To help students get started, you could share the following information.

#### Animals of the Okavango Delta

- **Crocodile:** The most feared predator of the region, with its black markings and scales on its back. It spends time in the water or on the riverbank, mouth open, as a way to help regulate its body temperature and relax its jaw muscles.
- **Hippo:** One of the most feared animals of the Delta. With its sharp teeth and powerful jaws, hippos can bite a canoe in half and gash a hole in an aluminum boat. They also move quickly, which makes them a fierce predator.
- **Sitatunga:** A kind of antelope that lives on the papyrus

growing throughout the Delta. The animal's splayed hooves enable it to move easily through the swampy environment.

- **Wild dog:** The Delta has one of the largest populations of these endangered animals. Conservation efforts in Botswana, largely geared toward keeping them away from villages, may help keep the species from becoming extinct.
- **Fishing owl:** This bird is one of the largest owls in the world. It hunts at night and is almost impossible to see during the day. It lives in the thick forests and fishes in the swampy waters.

### Related Activity

Using the information they gathered for their signs, ask students to compile their findings into an *Okavango Animal Encyclopedia*. After deciding on the format for the encyclopedia—as a print compilation, a PowerPoint presentation, or another format of their choice—divide students into five groups. Have each group compile information on two animals in the chosen format. After the encyclopedia is completed, invite another class in to learn about the animals of the Okavango Delta.

ACTIVITY THREE

# Survival in the Okavango Delta

**Goal:** To help students understand how animals of the Okavango have adapted to their environment, which fluctuates between flooding and periods of arid weather, and to learn about how conservationists are working together to preserve this region.

### Part A. The Changing Environment

While the Okavango Delta experiences tremendous fluctuation of water during its annual flooding, the area nonetheless does serve as an oasis for many of Africa's most cherished animals. As a result, many of the animals that live here have adapted to the variations of life in a wetlands environment. Building on the research students have already done, have them work in groups to study the five animals below. After researching how these animals have adapted to their environment, students should complete a chart like the one shown below. (Younger students may choose to research only three animals and could draw pictures of how each animal adapts instead of using words to express their ideas.)

Animals	How Animals Have Adapted to Their Environment
Lion	Has learned to swim as a way to move from place to place and to find food.
Sitatunga	Has splayed hooves to make it easier to move in the reed beds and to wade in the swampy waters.
Fishing owl	Hunts for food by fishing in the waterways found in the Delta.
Elephant	"Follows the water," traveling from the south to the Delta to take advantage of the annual flooding which, over the years, has increased the size of the wetlands almost threefold.
Crocodile	Spends days in the water or on the riverbanks, often with their mouths open, which helps them regulate their body temperature and rest their jaw muscles. Crocs hunt at night to surprise their prey.

After each group has completed their chart, discuss the findings. Develop a class chart of all the animals the class has studied.

### Part B. Conserving the Delta

Conservationists have long recognized the Okavango as one of Africa's national treasures. Many international groups have been working to conserve this area against environmental threats, including human activities such as cattle ranching, increased tourism, and the possibility of diverting water from the Delta to the arid areas of southern Africa. Organizations such as Conservation International and the Kalahari Conservation Society, as well as the government of Botswana, have been somewhat successful in protecting this area. In addition, individuals such as Tim Liversedge have helped educate people about the Delta through films like *African Adventure: Safari in the Okavango*, as well as books and magazine articles.

After students research conservation efforts in the Delta, have them write a letter to a wildlife magazine about why conservation is important. Younger students may choose to develop ideas for a class letter to a conservation group.

### Related Activity

Sometimes the work of one person can make a big difference. Suggest that students find out more about Tim Liversedge and other individuals who have devoted their lives to protecting Africa. Have students consider whether they think films have been an effective way to get the message out. What other media have people used? Have their approaches helped save the Okavango Delta?



## Resources for Teachers

### Okavango Maps and Geography

[www.travelafricamag.com/content/view/224/56/](http://www.travelafricamag.com/content/view/224/56/)  
[www.thuto.org/ubh/bw/bhp7.htm](http://www.thuto.org/ubh/bw/bhp7.htm)

### Animals of the Okavango

<http://magma.nationalgeographic.com/ngm/0412/feature3/index.html?fs=www7.nationalgeographic.com>  
[www.travelafricamag.com/content/view/224/56/](http://www.travelafricamag.com/content/view/224/56/)  
[www.american.edu/TED/elephant.htm](http://www.american.edu/TED/elephant.htm)

### Conserving the Okavango

[www.afrol.com/articles/19010](http://www.afrol.com/articles/19010)  
[www.geog.ucl.ac.uk/~mtodd/accord/index.htm](http://www.geog.ucl.ac.uk/~mtodd/accord/index.htm)  
[www.jyi.org/volumes/volume7/issue1/articles/stowe.html](http://www.jyi.org/volumes/volume7/issue1/articles/stowe.html)  
[www.gov.bw/cgi-bin/news.cgi?d=20061207&i=Five\\_countries\\_to\\_sign\\_MOU](http://www.gov.bw/cgi-bin/news.cgi?d=20061207&i=Five_countries_to_sign_MOU)

[www.ymteacher.com](http://www.ymteacher.com)

### Books

*Africa's Vanishing Wildlife*, by Chris and Tilde Stuart. Washington, D.C.: Smithsonian Books, 1996.

*Okavango: A Journey*, by Robyn Keene-Young and Adrian Bailey. Cape Town: New Holland Publishers, 2006.

*Okavango River: The Flow of a Lifeline*, by John Mendelsohn and Selma El Obeid. Cape Town: New Holland Publishers, 2004.

## Resources for Students

### Okavango Maps and Geography

[www.travelafricamag.com/content/view/224/56/](http://www.travelafricamag.com/content/view/224/56/)  
[www.greatestplaces.org/notes/okavango.htm](http://www.greatestplaces.org/notes/okavango.htm)

### Animals of the Okavango

[www.go2africa.com/botswana/okavango-delta/](http://www.go2africa.com/botswana/okavango-delta/)  
[www.travelafricamag.com/content/view/224/56/](http://www.travelafricamag.com/content/view/224/56/)  
<http://animal.discovery.com/fansites/wildkingdom/lions/field/field.html>

### Conserving the Okavango

[www.conservation.org/xp/CIWEB/regions/africa/safrica.xml](http://www.conservation.org/xp/CIWEB/regions/africa/safrica.xml)  
[www.kcs.org/bw/](http://www.kcs.org/bw/)  
[www.conservation.org/xp/CIWEB/programs/ecotourism/](http://www.conservation.org/xp/CIWEB/programs/ecotourism/)

### Books

*Africa Calling, Nighttime Falling*, by Daniel and Kimberly M. Adlerman. Watertown, MA: Charlesbridge Publishing, 2001.

*African Animals*, by Caroline Arnold. New York: William Morrow and Company, Inc., 1997.

*Endangered Savannah Animals (Endangered Animals series)*, by J. David Taylor. New York: Crabtree Publishing Co., 1992.

### nWave Pictures

[www.nwave.com](http://www.nwave.com)

Find out more about *African Adventure: Safari in the Okavango* and other exciting nWave Pictures productions.



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