

Foreword

“There are no other Everglades in the world.” Those were the words of Marjory Stoneman Douglas in 1947. Everglades National Park became the first national park set aside specifically to protect a unique diversity of plants and animals. More recently, the United Nations has recognized the area as an International Biosphere Reserve and a World Heritage Site. Its 1,509,000 acres of wild land are the subject of heated debate in one of, if not the most, threatened national parks. Additional information about Everglades can be found on our web site at <http://www.nps.gov/ever>. There are three other national park units in South Florida: Biscayne National Park, Dry Tortugas National Park, and Big Cypress National Preserve. This revised activity guide seeks to include program activities for all four national parks.

Biscayne National Park is the largest marine area administered by the National Park Service. It encompasses both land and water, but is primarily known for its incredible coral reef. Established as a National Monument in 1958, Biscayne was enlarged to 180,000 acres and re-designated as a national park in 1980. Additional information about Biscayne National Park can be found at web site <http://www.nps.gov/bisc>.

Dry Tortugas National Park covers 64,700 acres and is located about 70 miles west of Key West. The park’s seven small islands are surrounded by pristine coral reef. The park was established as Fort Jefferson National Monument in 1935, and was re-designated a national park in 1982. Additional information about Dry Tortugas National Park can be found at web site <http://www.nps.gov/dрто>.

Big Cypress National Preserve was established in 1974; it was one of the first areas to receive the new federal “preserve” designation. This 729,000 acre preserve provides for multiple uses which include: hiking, hunting, fishing, off-road vehicle use, oil drilling, and grazing. Additional information about Big Cypress can be found at web site <http://www.nps.gov/bicy>.

Many of the threats facing the South Florida parks originate outside their borders. Humans have had a greater impact on these parks than any other species. While there are grave concerns facing the parks, there is also a great deal of hope. The greatest hope for the future of our national parks is our children. As resource users and future decision-makers, the fate of the parks lies in their hands. This guide will help educators teach their students about the parks and the responsible actions they can take to ensure the parks’ survival.

Over the years, a myriad of people have contributed to the development of the curriculum materials found in this guide. This guide would not exist without the support and help of all the teachers, students, parents, volunteers, and park staff who have participated in the parks’ programs over the past twenty-seven years. This activity guide is dedicated to them.

Special thanks are extended to the National Park Foundation’s Parks As Classrooms Program for recognizing the need for this publication. Without the financial support provided by the Foundation, this edition of the guide could never have been produced.

If you have any comments or suggestions for the next edition, please contact the Environmental Education Office at (305) 242-7753, or write to Everglades National Park, 40001 State Road 9336, Homestead, FL 33034-6733.

Acknowledgements

**This guide is dedicated to those teachers
who share their sense of wonder with their students.**

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The activities in this guide have been developed and/or field tested by thousands of students, teachers, and park rangers who have participated in Everglades National Park’s Environmental Education Program during the past twenty-seven years. This guide could not have been produced without their contributions. When possible, individuals have been credited in the guide.



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An Introduction to Using This Guide

For over twenty-seven years, Everglades National Park has cooperated with schools from surrounding counties to conduct a dynamic environmental education (E.E.) program. Starting with a few field trips to the park in 1970, the formal program has evolved into an effort which touches more than 20,000 teachers and students annually.

This revision of the 1991 version of “An Activity Guide for Teachers” is still designed to meet the needs of teachers and students who may never have an opportunity to visit the park, as well as those who are active participants in the park’s on-site Environmental Education program. As stated in the Foreword, it seeks to include activities for all four of South Florida’s national parks. We have also added the Florida Sunshine State Standard(s) for each activity, a revised “Natural History” section for South Florida, and two activities presenting aspects of the Miccosukee and Seminole cultures. While targeted specifically toward fourth through sixth graders, many of the activities can be readily adapted for other grade levels.

Everglades/South Florida national parks are presenting this guide as a resource for teachers about the South Florida ecosystem. It is our goal to:

1. Acquaint students with the Everglades/South Florida ecosystem through hands-on interactive activities;
2. Develop within the students an understanding of the value of the Everglades to all of South Florida;
3. Develop within the students an appreciation for the total environment;
4. Direct students towards a status of active thinking and, hopefully, active participation relating to the environmental problems and decisions of South Florida.

The individual activities were selected to meet curriculum objectives of Dade County, Florida; however, other school systems will find that most of the activities can readily fit into their science objectives for grades four through six. An interdisciplinary approach was taken when creating the guide so that materials are easily integrated into varied school and subject skill areas. The guide is 3-hole-punched to be easily inserted in a three-ring binder, which will enable teachers to add appropriate information and activities.

An Overview of the Sections

The guide has been organized into eleven sections. The first six sections are the activities, organized by major topic; however, many of the activities are easily integrated into other categories and teachers are encouraged to be flexible when using the materials. The last five sections include materials to help clarify or extend information in the activities.

Getting to Know South Florida’s National Parks contains activities that introduce the students to the South Florida national parks and habitats. Students will become familiar with the purpose of national parks in general, and specifically the four in our area - Everglades National Park, Big Cypress National Preserve, Biscayne National Park, and Dry Tortugas National Park. They will become familiar with the parks’ locations and identify basic concepts associated with the South Florida ecosystem. This section also contains

the “Owner’s Manual to South Florida’s National Parks” which students are encouraged to sign once they have completed their study of the national park areas.

Fresh/Salt Water Ecology focuses on the vital issue of water in the Everglades/South Florida. Students will differentiate among issues involving the timing, quantity, quality, and distribution of water in the South Florida environment. They will be able to point out the source of fresh water in South Florida, identify various groups who are competing for that water, and design a plan demonstrating what they can do to conserve water.

What’s Happening to our Environment? has activities that will help students understand the South Florida ecosystem. Students will use their senses to identify familiar organisms of South Florida’s national parks. They will analyze the components of South Florida’s natural environment, discover how those components are interrelated, and make recommendations for future use of this environment.

Plants focuses on the importance of plants in our environment. The students will take an in-depth look at various concepts dealing with these issues. Students will be able to evaluate and make responsible decisions concerning their own lives and how their behavior affects the environment.

Wildlife activities focus on a wide variety of concepts dealing with wildlife in South Florida national parks. Students will consider the significance of interrelationships among organisms. They will compare basic food chains and recognize adaptations of the organisms as well as summarize problems which are causing organisms to decline.

Native People examines how a different culture perceives the Everglades’ environment. Indigenous people have a very strong connection with the land, and use techniques such as story telling and clothing designs to maintain and portray this connection. Students will gain an appreciation for cultural values and recognize the importance of working together to understand cultural differences.

Natural History contains fun facts which will assist the teacher in gaining background information needed to complete the activities. These pages may also be copied for student use. The fact sheets are titled by subject, and can be very informative for further research.

Supplementary Materials contains additional classroom (pencil/paper) materials and drawings which the teacher may wish to use to reinforce student learning retention.

Songs contains well-known tunes with lyrics that relate to the Everglades/South Florida.

Vocabulary has a list of words and their definitions which may be used as a reference throughout your study of the Everglades/South Florida.

Resources has a list of reference books as well as a list of environmental/educator resource contacts for learning more about the Everglades/South Florida environment.

Organization of Individual Activities

Each activity begins with a section which provides the **subject(s)** from which the activity is drawn, **duration** or length of each activity, **location** of the activity (whether it should be performed outdoors or in the classroom,) **key vocabulary** which may need to be reviewed to better understand the activity, the titles of **related activities**, and the **Florida Sunshine State Standard(s)** which that activity meets.

The above section is followed by **instructional objectives**, a brief description of the instructional **method** used, **background** information for the teacher, a list of needed **materials**, step-by-step **procedures** to follow, an **evaluation** section, and in some cases an **extension** of the activity. The instructor is encouraged to maximize student critical thinking and creativity in each activity. For many of the activities, a blackline master is listed under the materials section. This blackline master is found following the evaluation section of the individual activity.

Evaluation

On the next page is an evaluation form which teachers are asked to complete and return to Everglades National Park. It is the hope of the national park's education staff that this guide will help you and your students discover, understand, appreciate and most importantly, take action to protect, the wonders of South Florida's national parks.

Activity Guide Evaluation Form

We are very interested in your reactions to this revised edition. Please complete this evaluation and return it to us at the address below.

Your name: _____

School name and address: _____

Grade taught: _____

Circle one response for each statement listed below:

SA = Strongly Agree

A = Agree

D = Disagree

SD = Strongly Disagree

1. The guide is well-organized. SA A D SD

2. The guide's purpose and concept objectives are clearly explained. SA A D SD

3. The preparation requirements for most of the activities are too difficult. SA A D SD

4. The background information is adequate to carry out the activities. SA A D SD

5. The activities are appropriate for grades 4 to 6. SA A D SD

6. The activities will maintain student interest and involvement. SA A D SD

7. It was not necessary to include the last five sections with the guide. SA A D SD

8. My favorite activity was _____

9. My least favorite activity was _____

10. I would recommend the following changes, additions, or deletions to the guide: _____

Please return this form to: Everglades Education Office, 40001 SR 9336, Homestead, FL 33034-6733.