

BACKPACK THE PARKS

Expeditions in Education



Backpack the Parks!



At Expeditions in Education, we believe that learning extends far beyond the classroom walls. That's why we're thrilled to introduce our "Backpack the Parks" initiative, designed to ignite students' curiosity and love for the great outdoors while fostering a deeper understanding of our national parks.

With "Backpack the Parks," educators have the unique opportunity to curate and pack 8 engaging activities into backpacks, making it easier than ever for students to check out and explore the wonders of our national parks. From hands-on science experiments to wildlife scavenger hunts, each activity is carefully crafted to immerse students in the beauty, history, and natural wonders of these treasured landscapes.

Join us in empowering the next generation of park enthusiasts and conservationists as they embark on unforgettable learning adventures in our nation's most cherished natural spaces. With "Backpack the Parks," the journey to discovery begins with the turn of a backpack strap, and the possibilities for educational exploration are endless.

Backpack the Parks!



Instruction

Step 1: Ask for Donations of Backpacks and Clean Them Up

- Reach out to parents, local businesses, or the school community to request donations of gently used backpacks.
- Inspect the donated backpacks for any damage or excessive wear.

Step 2: Print the Activity Cards and Laminate

- Prepare activity cards that detail each of the educational activities you plan to include in the backpacks.
- Print these activity cards on durable cardstock paper.
- Laminate the activity cards to protect them from wear and tear during use.

Step 3: Put Cards on Rings

- Hole punch each laminated activity card.
- Use rings or zip ties to secure the cards together, creating a set of instructions for each activity.

Step 4: Purchase or Collect the Materials Needed for the Activities

- Create a list of materials required for each activity, as outlined in your activity plan.
- Gather all the necessary materials for each activity. This may include items such as magnifying glasses, sketchbooks, rocks, clay, flashlights, and more.

Step 5: Put Materials in Ziplock Bags

- Organize the materials for each activity into separate ziplock bags.
- Ensure that each bag contains all the necessary materials, making it easy for students to access and use them.

Step 6: Attach the National Park Tag to the Outside of the Bag

- Create or print a National Park-themed tag that identifies the backpack as part of the Backpack the Park program.
- Attach this tag securely to the outside of the ziplock bag or backpack.

Big Cypress National Preserve

Activity 1: Ecosystem Diversity Exploration

Materials:

- Field guidebooks
- Journal
- Pencils

Instructions:

1. Start by choosing a specific ecosystem within Big Cypress National Preserve (e.g., swamp, pineland, hardwood hammock).
2. Use field guidebooks to identify and record the different plants and animals you find in that ecosystem.
3. Note their unique characteristics and adaptations.
4. Discuss the diversity of ecosystems and how they support various forms of life.

Activity 2: Cypress Trees and Their "Knees"

Materials:

- Small potted cypress tree or a photo of one
- Magnifying glass
- Ruler

Instructions:

1. Examine a small potted cypress tree.
2. Use a magnifying glass to look closely at the cypress tree's "knees" (protruding roots).
3. Measure the height of the tree and the size of its knees.
4. Discuss why cypress trees have knees and how they help the tree in wet environments.

Activity 3: Wildlife Observation Scavenger Hunt

Materials:

- Field guidebooks
- Journal
- Pencil

Instructions:

1. Go on a wildlife observation hike using the photos provided.
2. Use binoculars to spot wildlife such as birds, alligators, or turtles.
3. Identify the species using field guidebooks.
4. Keep a checklist of the animals you encounter.
5. Discuss the importance of preserving habitat for these creatures.



Activity 4: Endangered Species Awareness

Materials:

- Pictures or posters of endangered species
- Information sheets

Instructions:

1. Show pictures or posters of endangered species like the Florida panther and the Everglades snail kite.
2. Provide information sheets with facts about each species.
3. Discuss why these animals are endangered and what can be done to protect them.

Big Cypress National Preserve

Activity 5: Native American History Exploration

Materials:

- Books or online resources on Native American history

Instructions:

1. Research the Native American tribes that historically inhabited the area of Big Cypress.
2. Learn about their cultures, traditions, and their connection to the land.
3. Create a presentation or poster to share what you've learned with others.

Activity 6: Swamp Ecosystem Simulation

Materials:

- Large container
- Water
- Soil
- Small plants
- Plastic animals

Instructions:

1. Create a mini swamp ecosystem in a large container.
2. Add water, soil, and small plants.
3. Place plastic animals representing swamp creatures (like alligators or frogs) in the container.
4. Observe how the ecosystem works, including the role of wetlands in filtering water and providing habitat.

Activity 7: Conservation Poster Making

Materials:

- Art supplies (paper, markers, colored pencils, crayons)

Instructions:

1. Discuss the importance of conservation efforts in preserving Big Cypress.
2. Create posters highlighting the need to protect the preserve's unique ecosystems and wildlife.
3. Encourage them to use art to convey the message.

Activity 8: Cultural Heritage Storytelling

Materials: Books or resources on Seminole culture and history

Instructions:

1. Learn about the Seminole Tribe's cultural heritage and history in the region.
2. Practice storytelling by sharing stories related to Seminole traditions or legends.

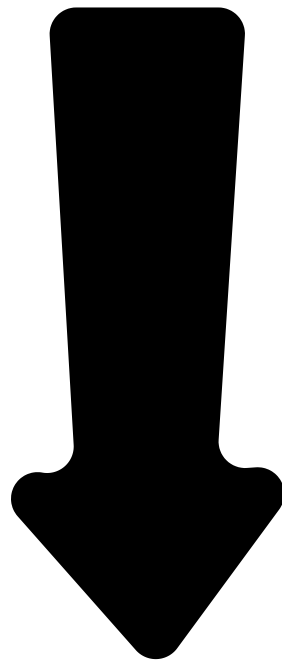
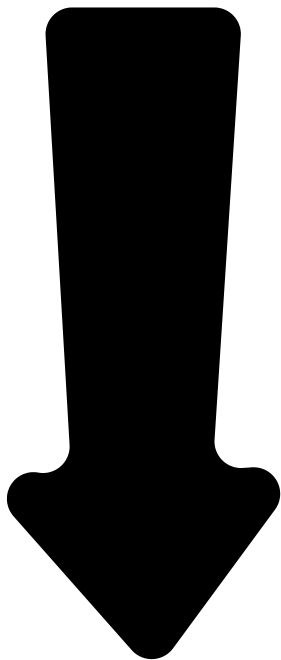


Activity Cards

Print on cardstock

Laminate

Put on rings



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Activity 5: Native American History Exploration

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Instructions:

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Activity 8: Cultural Heritage Storytelling

Materials: Books or resources on Seminole culture and history

Instructions:

- Learn about the Seminole Tribe's cultural heritage and history in the region.
- Practice storytelling by sharing stories related to Seminole traditions or legends.

BAG TAG BELOW!



**Big Cypress
National Preserve**

Backpack the Parks!

#ExploreTheParksWithUs

**"Pack Your Curiosity,
Explore Nature's Beauty!"**

www.expeditionsineducation.org

Big Cypress National Preserve Ecosystems

Here are the primary ecosystems found within the preserve, supported by real resources:

1. **Cypress Swamps and Wetlands:**

- Description: Cypress swamps are characterized by towering cypress trees with distinctive "knees" (protruding roots). These wetlands are often inundated with water, creating a habitat for aquatic plants, fish, reptiles, and wading birds.
- Resource: [National Park Service - Cypress Swamps](#)

2. **Pine Flatwoods:**

- Description: Pine flatwoods are dominated by longleaf and slash pine trees, with an understory of palmettos and wiregrass. This ecosystem provides habitat for various wildlife species and is fire-dependent.
- Resource: [Florida Natural Areas Inventory - Pine Flatwoods](#)

3. **Hardwood Hammocks:**

- Description: Hardwood hammocks consist of dense stands of hardwood trees, such as oak and gumbo-limbo, and often occur on elevated ground. They offer shelter for wildlife and are rich in plant diversity.
- Resource: [Big Cypress National Preserve - Hardwood Hammocks](#)

4. **Marshes and Wet Prairie:**

- Description: These wetlands include expansive grassy areas, water lilies, and aquatic vegetation. They are important habitats for wading birds, alligators, and a variety of aquatic species.
- Resource: [Florida Department of Environmental Protection - Marshes and Wet Prairie](#)

5. **Cypress Strands:**

- Description: Cypress strands are linear groves of cypress trees often found near rivers and streams. They provide critical habitat for nesting birds and unique plant species.
- Resource: [Big Cypress National Preserve - Cypress Strands](#)

6. **Rivers and Creeks:**

- Description: Numerous rivers and creeks flow through Big Cypress, including the Turner River and the Fakahatchee Strand. These waterways support diverse aquatic life and provide water sources for the preserve's ecosystems.
- Resource: [Florida Rambler - Canoeing Big Cypress](#)

7. **Sawgrass Prairies:**

- Description: Sawgrass prairies are open expanses of sawgrass, a grass species with serrated edges. They are home to a variety of bird species and support a unique set of wetland plants.
- Resource: [National Park Service - Sawgrass Prairies](#)

Cypress Trees and Their Knees

Cypress trees and their distinctive "knees" are fascinating features of the wetland ecosystems found in places like Big Cypress National Preserve. These unique adaptations play a crucial role in the survival and success of cypress trees in their watery environments.

Cypress Trees (*Taxodium spp.*):

- **Description:** Cypress trees are deciduous conifers known for their tall, straight trunks and feathery leaves. They thrive in wetland habitats, such as swamps, where their unique adaptations allow them to endure in waterlogged soil.

Cypress Knees:

- **Description:** Cypress knees are curious, knobby growths that protrude from the roots and rise above the water's surface. They resemble small, woody cones or columns, and their size can range from a few inches to several feet in height. These knees are not the tree's actual roots but rather specialized structures that emerge from the roots.

Functions of Cypress Knees:

1. **Aeration:** Cypress knees serve as pneumatophores, which means they function as air conduits. In waterlogged soils, oxygen can be scarce, and cypress trees need oxygen for their roots to respire. The knees allow the trees to exchange gases with the atmosphere, aiding in their survival.
2. **Stability:** Cypress knees help stabilize the tree in soft, muddy soil. By extending both above and below the water's surface, they provide structural support to the tree, preventing it from toppling over in the often-soft substrates of swampy environments.
3. **Nutrient Uptake:** While not the primary function, cypress knees can also play a role in nutrient uptake, potentially absorbing nutrients from the water.

Resources on Cypress Knees:

1. **National Park Service - Cypress Knees:** This resource from the National Park Service provides information and images of cypress knees in Big Cypress National Preserve.
 - [NPS - Cypress Knees](#)
2. **University of Florida IFAS Extension - Cypress Knees:** The University of Florida's Extension program offers insights into the purpose and ecology of cypress knees.
 - [UF IFAS Extension - Cypress Knees](#)
3. **Encyclopedia of Life - *Taxodium distichum* (Bald Cypress):** Explore details about bald cypress, including information on its unique adaptations.
 - [Encyclopedia of Life - Bald Cypress](#)

Endangered Species of Big Cypress

1. Florida Panther (*Puma concolor coryi*):

- Description: The Florida panther is a subspecies of the cougar and is the official state animal of Florida. It is a large, solitary big cat with a tawny coat and distinctive white markings on its face.
- Status: Endangered
- Importance: The Florida panther is a top predator in the food chain, helping to regulate the populations of prey species in the preserve.

2. Red-Cockaded Woodpecker (*Picoides borealis*):

- Description: The red-cockaded woodpecker is a small, black-and-white woodpecker with a distinctive black cap and white cheeks. It is known for its cavity-nesting behavior in mature pine trees.
- Status: Endangered
- Importance: These woodpeckers create cavities in longleaf pine trees, which are then used by other wildlife for nesting and shelter.

3. Eastern Indigo Snake (*Drymarchon couperi*):

- Description: The eastern indigo snake is the longest snake native to North America, with a shiny blue-black coloration. It is non-venomous and plays a vital role in controlling rodent populations.
- Status: Threatened
- Importance: Eastern indigo snakes help maintain the balance of the ecosystem by keeping rodent populations in check.

4. Wood Stork (*Mycteria americana*):

- Description: The wood stork is a large wading bird with distinctive long legs, a long neck, and a bald head. It has a primarily white plumage with black wingtips.
- Status: Threatened
- Importance: Wood storks are important indicators of wetland health and are highly dependent on the availability of wetland habitats for nesting and foraging.

5. American Crocodile (*Crocodylus acutus*):

- Description: American crocodiles are large reptiles with elongated snouts and V-shaped ridges between their eyes. They are well-adapted to both saltwater and freshwater habitats.
- Status: Threatened
- Importance: The presence of American crocodiles in the preserve indicates the health of aquatic ecosystems and serves as a vital link in the food chain.

6. West Indian Manatee (*Trichechus manatus latirostris*):

- Description: Manatees are large, slow-moving aquatic mammals with paddle-like flippers and a broad, rounded tail. They are herbivorous and often seen in the preserve's waterways.
- Status: Threatened
- Importance: Protecting manatee populations is crucial for the preservation of aquatic habitats and maintaining the biodiversity of the preserve's rivers and creeks.

History of Seminole Indians

1. **History of the Seminole:** The Seminole people have a long history in Florida. They are made up of different tribes, including the Creek, Miccosukee, and others. They came to Florida in the late 1700s and early 1800s to escape problems with others and to continue their way of life. These early times were not easy, and they faced conflicts with the U.S. government, known as the Seminole Wars. Despite the challenges, some Seminole groups found refuge in places like the Big Cypress Swamp, adapting to the environment and keeping their traditions alive.
2. **Cultural Richness:** The Seminole people have a vibrant culture that includes art, music, dance, and crafts. They are known for their unique patchwork clothing, intricate beadwork, and palmetto dolls. These cultural traditions are passed down from one generation to another, celebrating their rich heritage.
3. **Big Cypress Reservation:** Established in 1920, the Big Cypress Reservation is an important part of Seminole life. It is located within Big Cypress National Preserve and serves as the main center for the Seminole Tribe of Florida. Here, they continue to connect with their land, culture, and community.
4. **Seminole Today:** Today, the Seminole Tribe of Florida plays a significant role in the region. They are involved in various activities like gaming and tourism, which helps their tribe become self-sufficient and financially strong. This strength allows them to preserve their traditions and culture.
5. **Preserving Their Legacy:** Efforts are made to preserve and share Seminole history and culture. There are educational programs, museums, and cultural centers that teach visitors about the Seminole way of life and their importance in the area.

Resources:

- **Seminole Tribe of Florida Official Website:** The official website of the Seminole Tribe of Florida provides information about their history, culture, and activities.
- [Seminole Tribe of Florida](#)
- **Big Cypress National Preserve - Cultural History:** This National Park Service page provides insights into the cultural history of Big Cypress, including the Seminole people.
- [NPS - Cultural History](#)
- **Seminole Arts and Culture:** Learn more about Seminole art and culture, including their crafts and traditional clothing.
- [Florida Memory - Seminole Arts and Culture](#)

The Legend of the First Palmetto Doll:

Long ago, in the heart of the Florida Everglades, where the land met the sky and the water met the earth, there lived a young Seminole girl named Ayita. Ayita was known throughout her village for her kindness and her love for nature. She spent her days exploring the swamps, learning the secrets of the land, and listening to the whispers of the wind.

One bright morning, as Ayita was wandering along the riverbank, she saw something special—palmetto leaves swaying gently in the breeze. Inspired by the beauty of nature, she gathered the palmetto leaves and began to craft something magical. With great care, she wove the leaves into a small doll, giving it a heart full of love and a spirit of wonder.

As Ayita finished the doll, she felt a warm breeze surround her, and the doll seemed to come to life. It blinked its eyes and smiled at her. Ayita was overjoyed and named the doll "Paloma," which means "dove" in her language. Paloma became Ayita's constant companion. Together, they explored the swamps, learned the songs of the birds, and danced to the rhythm of the river. Ayita shared her stories and dreams with Paloma, who listened with love and understanding.

Word of the magical palmetto doll spread throughout the Seminole village. Soon, other children wanted their own Paloma dolls. Ayita, with her heart full of kindness, taught them the art of crafting these special dolls, using the palmetto leaves as a symbol of their connection to the land.

And so, the tradition of the Seminole palmetto dolls began, a tradition that continues to this day. Each doll carries the spirit of Ayita, the young girl who saw the beauty in nature and shared it with her people. The dolls remind us of the importance of preserving our connection to the land and to each other.

Resources:

1. **"The Palmetto and Its Weaving" (Seminole Tribe of Florida):** This resource provides insights into the Seminole tradition of making palmetto dolls and their significance in Seminole culture.
 - [Seminole Tribe of Florida - Palmetto and Its Weaving](#)
2. **"The Legend of the First Seminole Palmetto Doll" (Florida Memory):** Read more about the legend of the first palmetto doll and its cultural importance in Seminole history.
 - [Florida Memory - Palmetto Doll Legend](#)
3. **"Florida's Native Peoples - Seminole" (Florida Museum):** Explore more about Seminole culture, history, and traditions, including their storytelling heritage.
 - [Florida Museum - Seminole](#)