

FOURTH GRADE

# THE HISTORY OF FLORIDA LESSONS



**GEOGRAPHIC LOCATION,  
THE LAND, AND THE CLIMATE**

The Historical Society of Palm Beach County and  
Richard and Pat Johnson Palm Beach County History Museum  
300 N. Dixie Highway, West Palm Beach, FL 33401  
[www.hspbc.org](http://www.hspbc.org) · 561.832.4164

# GEOGRAPHIC LOCATION, THE LAND, AND THE CLIMATE

## STANDARDS:

**SS.4.G.1.1:** Identify physical features of Florida.

**SS.4.G.1.3:** Explain how weather impacts Florida.

**LAFS.4.RI.1.1:** Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

**LAFS.4.RI.2.6:** Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.

**LAFS.4.RI.3.7:** Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

**LAFS.4.W.1.2:** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

**SS.4.G.1.In.d:** Identify information provided on maps using the title, compass rose, cardinal directions, symbols, legend, scale, longitude, latitude).

## FLORIDA'S LOCATION

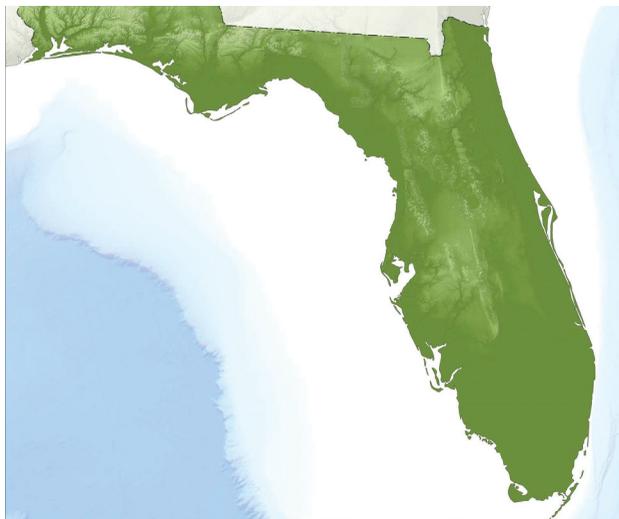
Florida is the southeastern most state in the United States. It is a *peninsula*, which means it has water on three sides. To the east of Florida is the Atlantic Ocean, to the west is the Gulf of Mexico, and to the south are the Straits of Florida. To the north are the states of Alabama and Georgia.

Our state has a unique shape, which makes it easy to locate on a map. The northwestern part of the state is called the *Panhandle*, because it is shaped like the handle of a frying pan. Two important cities in the Panhandle are Pensacola and Tallahassee, the state's capital. At the tip of south Florida rests a string of islands called the *Florida Keys*. The most famous of these islands are Key Largo, Marathon, and Key West.

## THE LAND

Between 300 million and 400 million years ago, north Florida was separated from swampy

south Florida by a body of water called the *Florida Trench*. Then 200 million years ago, lava from active volcanoes filled in the



Map of Florida

Courtesy of Free World Maps

trench, leaving only a shallow sea. The sand and shells of dead marine animals fossilized to form a limestone plateau, or area of flat land. This plateau finally rose up to form a marshy plain at sea level.

During an Ice Age about 100 million years ago, the water level of the oceans dropped as the water froze, which created glaciers that left Florida twice its present size for thousands of years. When the last Ice Age ended about 12,000 years ago, the ocean levels rose again, and the climate became

warmer and wetter. Part of Florida remained underwater, which today is called the *continental shelf*. This shelf slopes gently into the ocean, and at its edge, the water becomes very deep. Over time, the constant rising and falling of water levels helped form the three land regions that currently exist in Florida: the Atlantic Coastal Plain, Florida Highlands, and Gulf Coastal Plain.

## ICE AGE MEGAFUNA

Mammals such as woolly mammoths, saber-toothed cats, giant ground sloths, and giant beavers thrived during the last Ice Age.

In 1969, the bones of a type of woolly mammoth called a *mastodon* were discovered in Palm Beach County by a 13-year-old who was driving his tractor. When the mastodon bones were assembled, it was 12 feet high and 16 feet long, and was later named *Suzie*. Nearby were found the bones of other animals including two ancient bison, a deer, a sloth, alligators, snakes, and fish.

## FLORIDA LANDSCAPES

Today Florida has several types of

## Historical Timeline

Pliocene Epoch  
5,333,000 YA-2,580,000 YA

Pleistocene Epoch  
2,580,000 YA-11,700 YA

Holocene Epoch  
11,700 YA-Present

landscapes, including lowlands, highlands, and wetlands. The *lowlands* are flat and are found at the Atlantic and Gulf Coastal Plain, which are mostly covered by grasslands called *savannas*. *Barrier islands*, common along both coasts, are low, narrow strips of land that protect the mainland from stormy seas.

The different regions of Florida are cut by waterways: bays, inlets, lakes, rivers, and canals. The canals are man-made to move water from one place to another and for boat travel.

The Florida highlands are hills more than fifty-feet above sea level. They are found in the Panhandle and down the middle of the state.

The last type of Florida landscape is *wetlands*, a lowland in which the water level stays near the earth's surface. The Everglades, a huge wetland in the southern part of the peninsula, is only about eight feet above sea level at its highest point.

## THE CLIMATE

Florida has a mild climate. The temperature rarely gets very cold because its southern tip is near the equator. Areas in the Panhandle and north Florida get cold in the winter. The average daily temperature in Florida is 70.7°F. The state's lowest recorded temperature was on February 13, 1899, when it dropped to -2 degrees Fahrenheit in Tallahassee. Florida's climate is good for growing crops and for enjoying warm weather activities all year



A wide variety of megafauna thrived during the Ice Age.

Courtesy of *The Independent*

long.

Florida is also known for its wetness. Rain averages more in Florida than in most other states. The rainy season is from May to November. Florida residents pay close attention to the meteorologists' forecasts during these months, because this is when thunderstorms, tornadoes, tropical storms, and hurricanes typically occur.

Florida's climate attracts many people. Some come to visit, while others live here during the winter and return to the north for spring and summer. These people are sometimes called *snowbirds*.

## PALM BEACH COUNTY GEOGRAPHY

Palm Beach County is one of sixty-seven counties in Florida. It is located on the state's southeast coast. To the north of Palm Beach County is Martin County, to the south is Broward County, to the east is the Atlantic Ocean, and to the west are Lake Okeechobee and Hendry County.

Large areas of Palm Beach County contain nature preserves and farmland. Most cities in the

county are along the east coast, spreading west from the ocean about twenty to twenty-five miles. There are also a few communities on the east shore of Lake Okeechobee.

Palm Beach County is special for several reasons. First, it is the largest county in Florida. It

covers about 2,383 square miles of land and water, more than the state of Rhode Island. In 2019, about 1,497,000 people lived in the county, and it is one of the fastest-growing counties in the state. Its largest city is the county seat, West Palm Beach, with a population over 114,500. The northernmost community is Tequesta, the southernmost is Boca Raton, and the westernmost is South Bay.

## BARRIER ISLANDS AND WATERWAYS

The series of barrier islands along the coast of Florida helps protect the mainland from pounding waves and storms. During hurricanes, people living on barrier islands must evacuate to the mainland for their safety.

There are many waterways in Palm Beach County. The major one is the Intracoastal Waterway, which runs between the barrier islands and the mainland through Florida. The Loxahatchee River in Jupiter, another waterway, is about eight miles long and flows through Jupiter Inlet into the Atlantic Ocean. The four largest

## STANDARDS:

**SS.4.G.1.4:** Interpret political and physical maps using map elements (title, compass rose, cardinal directions, intermediate directions, symbols, legend, scale, longitude, latitude).

and intermediate directions, symbols, and key/legend.

**SC.4.N.2.1:** Explain that science focuses solely on the natural world.

## ACTIVITIES!

### MAP SKILLS:

On a map, identify the locations mentioned in this section.

### TEST YOUR KNOWLEDGE:

1. When people go to the beach on the east coast of Florida, what ocean do they swim in?
2. A peninsula has water on three sides.
  - a. Is Florida a peninsula or an island?
  - b. What bodies of water surround Florida?
3. North and south Florida were separated millions of years ago. What separated them?
4. What three land regions were formed by the constant rising and falling of water levels?

## ACTIVITIES!

### MAP SKILLS:

While you read, use a map to locate and identify the areas discussed in this section.

### READING CHECK:

1. Why does Florida have a mild climate?
2. What state is smaller than Palm Beach County?
  - a. Vermont
  - b. Rhode Island
  - c. Connecticut
3. What disaster happened in 1928?

### ACTIVITY:

1. Explore the National Hurricane Center website, [www.nhc.noaa.gov](http://www.nhc.noaa.gov). What can you learn from this website about hurricanes?
2. Try to name the Florida state symbols pictured on pages 6-7. Then check your answers on the web.

### SHORT ANSWER:

1. What is the eye of a hurricane?
2. What is another name for a hurricane?

lakes in Palm Beach County are Lake Okeechobee, Lake Mangonia, Clear Lake, and Lake Osborne.

Four major canals connect Lake Okeechobee to the Atlantic Ocean: Miami Canal, North New River Canal, Hillsboro Canal, and West Palm Beach Canal.

The last waterways that form the landscape of Palm Beach County are called *inlets*. Four inlets enter the Intracoastal Waterway through the barrier islands, and all are used for transportation and recreation: Jupiter Inlet, Lake Worth Inlet, Boynton Beach Inlet, and Boca Raton Inlet.

## HURRICANES

Weather is a concern for residents and visitors, especially during hurricane season, from June 1 through November 30 each year. The storms (*tropical waves*) that create hurricanes form over the warm waters of the Atlantic Ocean and gain strength as they head west from Africa toward the Caribbean Sea. As a tropical wave meets a low-pressure area, it begins to spin clockwise, turning into a *tropical depression*.

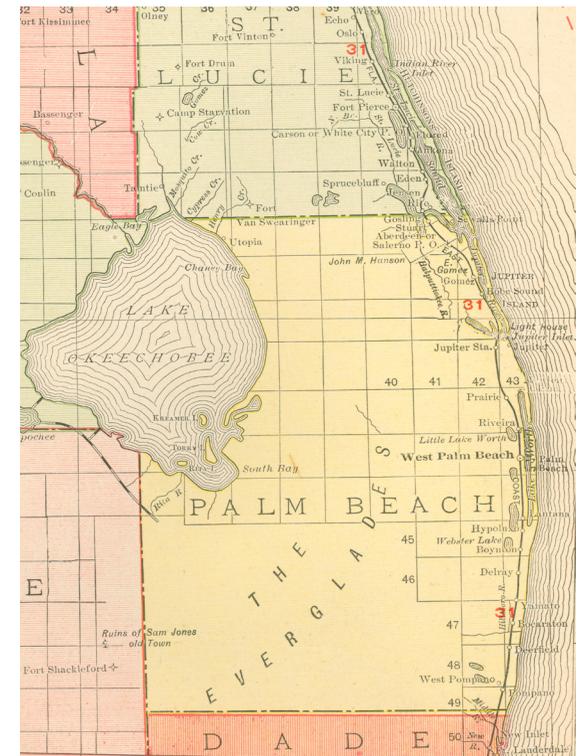
When the speed of the wind on its surface reaches forty miles per hour, the depression is called a *tropical storm*. At seventy-four miles per hour, it becomes a hurricane, or *tropical cyclone*. A hurricane has an *eye* at its center, which is an area of calm winds and low pressure surrounded by an eye wall. This eye wall contains thunderstorms,

high winds, and rain. The early hurricanes did not have names. The Weather Service began using names in the 1950s, to track them better. The naming system remained largely unchanged until 1979, when men's names were introduced into rotation.

Although several hurricanes have struck Palm Beach County, none caused as much loss of life and property damage as did the catastrophic 1928 hurricane. This storm was equal to a Category 4 hurricane. Strong winds and heavy rain caused Lake Okeechobee to overflow. Belle Glade, Pahokee, Canal Point, and South Bay flooded. Flooding and high winds damaged or destroyed almost everything in the hurricane's path, killing about 3,000 people in the Glades. As a result, the Herbert Hoover Dike was built around Lake Okeechobee.

Residents have learned to prepare for hurricanes. Evacuation routes have been established for those living along the coast. Meteorologists keep the public informed when a hurricane is approaching, so people can prepare.

In 2004, Florida was struck by four hurricanes--Charley, Frances, Ivan, and Jeanne--which was very unusual.



1909 County boundary map

Courtesy of HSPBC

## LAKE OKEECHOBEE AND THE DIKE

Part of the western border of Palm Beach County is formed by Lake Okeechobee. Before non-native settlers arrived, the lake was known by other names: Mayaimi, Espiritu Santo Laguna, Lake Mayaca, Lake Macaco, and Lake Sarrope. *Okeechobee* comes from a Seminole word meaning *big water*.

Lake Okeechobee is the second largest freshwater lake in the southeastern United States. It covers more than 730 square miles but is shallow, with an average depth of only nine feet. The lake used to provide fresh water to the Everglades, but in the 1920s, people caused a change in the water's



Shell



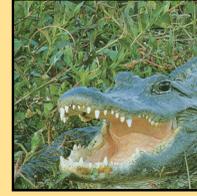
Stone



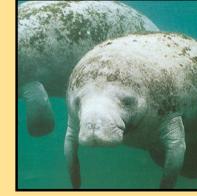
Tree



Wildflower



Reptile



Marine Mammal



Freshwater Fish



Map of Lake Okeechobee Courtesy of Vintage Beach Maps

supplied nutrients to the soil and water to the Everglades. Farmers had to use fertilizers to replace the missing nutrients. The water runoff from the fertilized fields flowed into the Everglades, which harmed plants and animals there.

The Comprehensive Everglades Restoration Plan (CERP) works to restore the Everglades and Lake Okeechobee to something like their natural state and teach people how to care for their environment. This restoration will allow

more tourism and recreation, benefiting nature and people.

### A FEW MAJOR PALM BEACH HURRICANES

**September 18, 1926:** The *Great Miami Hurricane* cut a swath of destruction from the Upper Keys to St. Lucie County, causing about \$75 million in damages and killing at least 372 people.

**September 16, 1928:** The storm of 28 devastated Palm Beach County flooding the Glades area, killing at least 3,000 people.

**September 17, 1947:** A hurricane caused a storm surge of up to twenty-two feet around Lake Okeechobee; the dike held.

**October 12, 1947:** A hurricane hit Lake Okeechobee on the west and dumped large amounts of rain on the Everglades. It flooded most of the agricultural land south of Lake Okeechobee.

**August 26, 1949:** A hurricane hit Palm Beach County and the Treasure Coast, causing at least \$1 million in damage at Palm Beach International Airport. The Lake Okeechobee dike and flood system helped reduce damage.

**August 27, 1964:** Hurricane Cleo caused \$50 million in damage in Palm Beach County.

**October 14, 1964:** Hurricane Isbell crossed the Everglades, striking Palm Beach County. Twenty-two mobile homes were destroyed by tornadoes; one man died in Lake Worth.

**September 3, 1979:** After killing a thousand people in the Caribbean, Hurricane David moved along the coast of Palm Beach County, causing \$30 million in damages.

### STANDARDS:

**SS.4.A.9.:** Utilize timelines to sequence key events in Florida history.

**SS.4.A.9.I:** Complete a timeline to sequence important events in Florida history.

**MAFS.4.OA.1.2:** Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

natural flow.

To prevent a repeat of the kind of flooding caused by the 1926 and 1928 hurricanes, President Herbert Hoover had an earthen dike built around Lake Okeechobee, which took thirty-eight years to complete. Construction on the dike provided work for people who had lost their jobs in the Great Depression. A *depression* occurs when people cannot afford to buy what they need. In turn, businesses cannot earn enough money to stay open.

Today, Lake Okeechobee is completely surrounded by 143 miles of the Hoover Dike that protects the state's rich farmlands from flooding.

The dike also created environmental problems, because it stopped the flow of water that

### ACTIVITIES!

#### ACTIVITY:

Create a timeline and chart the hurricanes from 1926 to 2017.

#### MATH CHECK:

If the 1928 hurricane dropped eighteen inches of rain in twenty-four hours, how many inches did it rain per hour?

### ACTIVITY!

Try to name the Florida state symbols on pages 3-4.



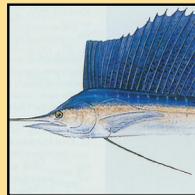
Animal



Butterfly



Bird



Saltwater Fish



Drink



Flower



Saltwater Mammal

## DID YOU KNOW?

The strong spiraling winds of a hurricane can reach speeds of up to 157 mph, strong enough to rip up trees and destroy buildings!

## ACTIVITIES!

### RESEARCH:

1. What is the largest lake in Florida?
2. What is the longest river in Florida?
3. What is the width of Florida?
4. What is the length of Florida?
5. What is the largest county in Florida?
6. What is the smallest county in Florida?
7. What is the highest natural point in Florida?

**September 5, 2004:** The winds of Hurricane Frances in Palm Beach County brought down trees and power lines and damaged roofs. About twelve inches of rain fell as the storm passed slowly through the area, causing six deaths.

**September 26, 2004:** Hurricane Jeanne, the second storm in less than a month, caused more damage and two deaths in Palm Beach County.

**October 24, 2005:** Hurricane Wilma passed over Palm Beach County, leaving trees toppled and other wind and water damage.

**September 10, 2017:** Hurricane Irma made impact, causing massive damage and loss of life. It was one of the costliest hurricanes in Florida's history.



A bus sign is destroyed during the 1926 hurricane. *Courtesy of HSPBC*



Flooded roads made rescue efforts difficult in 1928. *Courtesy of HSPBC*



Telephone service is being restored after a hurricane. *Courtesy of HSPBC*



A boat winds up in a yard after the 1947 hurricane. *Courtesy of HSPBC*



Streets are used for boating after the 1947 hurricane. *Courtesy of HSPBC*

# GEOGRAPHIC LOCATION, THE LAND, AND THE CLIMATE WORKSHEET 1

**Instructions:** Read "Geographic Location, The Land, and The Climate" and answer the questions below in a separate document. When you are finished, submit your answers to your teacher.

Name:

1. Describe the ways that the shape of Florida's Land-form changed?
2. Palm Beach is a barrier island. Describe how a barrier island helps to protect the mainland
3. Florida is known for being a wet state. What do you think are some of the reasons Florida has this name?

**GEOGRAPHIC LOCATION, THE LAND,  
AND THE CLIMATE**  
**ACTIVITIES ON PAGE 2 OF *THE HISTORY OF FLORIDA***

**Instructions:** Read "Geographic Location, The Land, and The Climate" and answer the questions below in a separate document. When you are finished, submit your answers to your teacher.

**MAP SKILLS:**

1. On a map, identify the locations in this section.

**TEST YOUR KNOWLEDGE:**

1. When people go to the beach on the east coast of Florida, what ocean do they swim in?

2. A peninsula has water on three sides.

A) Is Florida a peninsula or an island?

B) What bodies of water surround Florida?

3. North and South Florida were separated millions of years ago. What separated them?

4. What three land regions were formed by the constant rising and falling of water levels?

**GEOGRAPHIC LOCATION, THE LAND,  
AND THE CLIMATE**  
**ACTIVITIES ON PAGE 3 OF THE *HISTORY OF FLORIDA***

**Instructions:** Read "Geographic Location, The Land, and The Climate" and answer the questions below in a separate document. When you are finished, submit your answers to your teacher.

**MAP SKILLS:**

1. While you are reading, use a map to locate and identify the areas discussed in this section.

**READING CHECK:**

1. Why does Florida have a mild climate?
2. What state is smaller than Palm Beach County?

**ACTIVITY:**

1. Explore the National Hurricane Center website, [www.nhc.noaa.gov](http://www.nhc.noaa.gov). What can you learn from this website about hurricanes?

**SHORT ANSWER:**

1. What is the eye of a hurricane?
2. What is another name for a hurricane?

**GEOGRAPHIC LOCATION, THE LAND,  
AND THE CLIMATE  
ACTIVITIES ON PAGE 4-5 OF *THE HISTORY OF FLORIDA***

**Instructions:** Read "Geographic Location, The Land, and The Climate" and answer the questions below in a separate document. When you are finished, submit your answers to your teacher.

**ACTIVITY:**

1. Create a timeline and chart the hurricanes from 1928 to 2018.

**MATH CHECK:**

1. If the 1928 hurricane dropped eighteen inches of rain in twenty-four hours, how many inches did it rain per hour?

**ACTIVITY!**

Try to name the Florida state symbols on pages 6-7.

**RESEARCH(PAGE 5)**

1. What is the largest lake in Florida?
2. What is the longest river in Florida?
3. What is the width of Florida?
4. What is the length of Florida?
5. What is the largest county in Florida?
6. What is the smallest county in Florida?
7. What is the highest natural point in Florida?

# **GEOGRAPHIC LOCATION, THE LAND, AND THE CLIMATE PLAYDOUGH MAP ACTIVITY**

## **MATERIALS:**

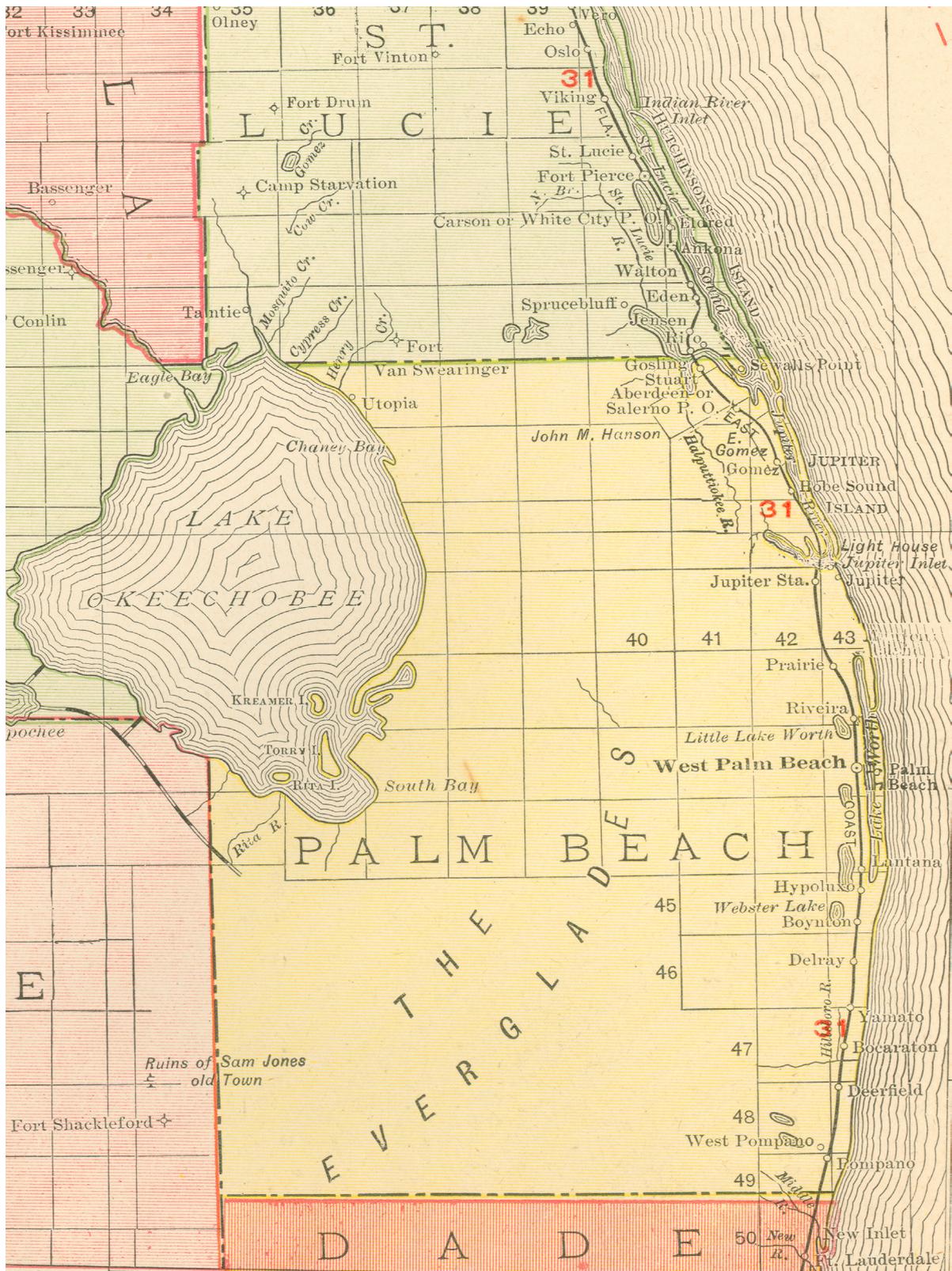
1. Map of Florida (page 6)
2. Map of Palm Beach County (page 7)
3. One large piece of cardboard
4. Marker, pen, or pencil
5. Toothpicks and adhesive labels (for labeling playdough map items)
6. Four batches of different color playdough.

## **INSTRUCTIONS:**

1. With supervision, completes the following recipe at home. In a non-stick pan, mix 1 cup flour, 1/2 cup salt, 1 cup water, 1 tablespoon vegetable oil and 2 teaspoons cream of tartar. Use food coloring to make desired color and stir constantly on low heat until it forms a soft ball. Place in zipped plastic bag.
2. Trace the outline of Florida on the cardboard with marker, pen, or pencil.
3. Using the maps on pages 6 and 7 to help you trace the outline of Florida on the cardboard with marker, pen, or pencil.
4. Construct a map of Florida on the cardboard using the playdough, using pages 6 and 7 to help you. Label the locations listed below using the toothpicks and adhesive labels. Once you finish, photograph your map and submit to your teacher.
  1. Lake Okeechobee
  2. St. Johns River
  3. Lake Kissimee
  4. Everglades
  5. Britton Hill.
  6. West Palm Beach
  7. Boca Raton
  8. Fort Lauderdale
  9. Miami.



Courtesy of Free World Maps



Courtesy of HSPBC

---

# CREDITS

---

## **PROJECT TEAM:**

### **HISTORICAL SOCIETY OF PALM BEACH COUNTY**

Casey Lipschutz,  
Education Coordinator  
Debi Murray, Chief Curator  
Rose Guerrero,  
Research Director

### **SCHOOL DISTRICT OF MARTIN COUNTY**

Shela Khanal, Director,  
Department of Title I/  
Migrant/ELL

### **SCHOOL DISTRICT OF PALM BEACH COUNTY**

Lisa Lee, Principal,  
Orchard View Elementary  
Debbye Raing (Retired)  
Margaret S. Newton (Retired)  
Danielle Trembler,  
Writing Team Leader  
Christel Akers  
Maria Calas  
Mary Ellen De Valle  
Allison Dobrick  
Cori Evans  
Gale Fravel  
Daisy Linares  
Heather McCarroll  
Tom Medcalf  
Jen Minuskin  
Eve Preefer  
Roberta Privalle  
Dr. Roger Rivner  
Sandy Trujillo  
Cynthia Vagedes  
Jacqueline Zloch

### **HISTORICAL SOCIETY OF PALM BEACH COUNTY BOARD OFFICERS 2020-2021**

Thomas M. Kirchhoff, Chair  
Richard S. Johnson Jr.,  
First Vice Chair  
Mark Stevens,  
Second Vice Chair  
Thomas Burns, CPA, Treasurer  
Joseph Chase, Secretary  
Jeffrey Alderton,  
Member at Large  
John Archer, Member at Large  
George L. Ford III,  
Member at Large  
Russell P. Kelley,  
Member at Large  
Penny Murphy,  
Member at Large  
Peter Nicoletti,  
Member at Large

### **BOARD OF GOVERNORS**

Christian Angle  
Hampton Beebe  
Margaret Cheryl Burkhardt  
Sharon Daley  
Graham G. Davidson  
David Goodlett  
Mary Freitas  
The Honorable Bradley G. Harper  
Stephen Richman  
Andrew Sciamé  
Peter Nicoletti  
Keith Williams  
Vernique Williams

### **EX-OFFICIO BOARD MEMBERS**

Alexandria Ayala, School Board  
of Palm Beach County  
Danielle Hickox Moore, Mayor,  
Town of Palm Beach  
Mack Bernard, Commissioner,  
Palm Beach County  
J. Grier Pressly, Past Chair

### **BOARD OF ADVISORS**

Cressman D. Bronson  
Katharine Dickenson  
Mark B. Elhilow  
George T. Elmore  
Dennis Grady  
William Graham  
Dale R. Hedrick  
Pat Seaton Johnson  
Gary S. Lesser  
The Honorable Karen Marcus  
William A. Meyer  
Carey O'Donnell  
Harvey E. Oyer III  
Jorge Pesquera  
Sidney A. Stubbs Jr.

### **HISTORICAL SOCIETY OF PALM BEACH COUNTY STAFF**

Jeremy W. Johnson, CAE,  
President and CEO  
Caroline Frazier, Director of  
Director of Marketing and Events  
Rhonda Gordon, Volunteer and  
Outreach Coordinator  
Rose Guerrero,  
Research Director  
Casey Lipschutz,  
Education Coordinator  
Taylor Materio,  
Director of Development  
Debi Murray, Chief Curator  
Sharon Poss,  
Office Administrator  
Lise Steinhauer,  
Membership | Grant Writer |  
Museum Store

### **SCHOOL DISTRICT OF PALM BEACH COUNTY BOARD MEMBERS**

Frank A. Barbieri Jr., Esq., Chair  
Debra Robinson, M.D., Vice Chair  
Marcia Andrews  
Alexandria Ayala  
Karen M. Brill  
Barbara McQuinn  
Erica Whitfield

### **SUPERINTENDENT**

Donald E. Fennoy II, Ed.D.

### **CHIEF ACADEMIC OFFICER**

Keith Oswald

### **DIVISION OF TEACHING AND LEARNING**

Diana Fedderman,  
Assistant Superintendent  
Mary Ann Colbert, Manager  
Kristen Rulison, Manager

### **DIRECTOR, MULTICULTURAL EDUCATION**

Francisco Oaxaca

### **K-5 SOCIAL STUDIES PROGRAM PLANNER/HOLOCAUST STUDIES/PROGRAM MANAGER**

Maureen Carter

### **ELEMENTARY SOCIAL STUDIES RESOURCE TEACHER**

Laurene Neubarth