#### Name:





Why should we understand past events that have shaped the Everglades? To find ways to restore the Everglades, we need to understand how the Everglades functioned before the area was drained and developed, beginning in the late 1800s. We should also celebrate the important events that have happened and are still happening that contribute to restoring the Everglades. Of course, it is impossible to return the entire Everglades to pre-development conditions, but understanding how the Everglades has been modified by people helps us understand the current challenges to Everglades restoration and how to best meet those challenges with sound solutions.

**<u>Directions</u>**: Do online research to match these Everglades history events to the dates on the provided timeline to create a timeline of the Everglades, past and present.

# Materials:

- Everglades History Timeline Worksheet
- Device to conduct online research
- Paper to take notes

Standards: LAFS.6.RI.3.7, LAFS.7.W.3.7, LAFS.K12.W.3.7

#### **Everglades Literacy Connections:**

Grades 6-8, Grade 6, Lesson 1 – Kissimmee – Lake Okeechobee – Everglades (K-O-E) <u>https://www.evergladesliteracy.org/sixth-grade</u>

• Students will be able to identify locations and waterways in the Kissimmee-Okeechobee-Everglades (K-O-E) watershed on a map after watching a video and reading a story.

Grades 9-12, Environmental Factors of the Everglades, Lesson 1 – Heart of a Watershed https://www.evergladesliteracy.org/9th-12th-our-watershed

 In small groups, students build a landscape model to illustrate the uniqueness of the Kissimmee-Lake Okeechobee-Everglades (K-O-E) watershed, and then modify the model to demonstrate how alterations have affected the K-O-E watershed.

# Dates and Events:

Here are the dates to research:

# 1881, 1905, 1928, 1937, 1947, 1951, 1971, 1973, 1993, 1994, 1999, 2003, <u>2013</u>, 2016, 2017-2018, 2020

#### **Historical Events:**

- **A.** Hamilton Disston begins drainage of southern Florida wetlands, with a promise from the state of 1 million acres for 25 cents per acre if he succeeds.
- **B.** The Kissimmee River Restoration Project will be completed and will restore more than 40 square miles of river-floodplain Everglades ecosystem, including nearly 20,000 acres of wetlands and 44 miles of historic river channel. The Kissimmee River Restoration Project was authorized by Congress in 1992.
- **C.** Two events coincided in this year: (1) Marjory Stoneman Douglas, writer and conservationist, published *The Everglades: River of Grass*, a book that many believe changed the course of history for Florida, igniting Everglades conservation. (2) Everglades National Park is established.
- **D.** The U.S. Congress approves the Comprehensive Everglades Restoration Plan (CERP), a joint federal-state plan to restore the Everglades and provide water for people and the environment. Congress authorizes the first 10 projects in the plan.

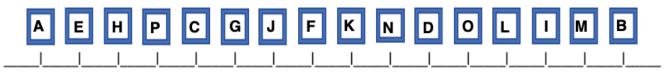


- **E.** Guy Bradley, a Monroe County Deputy, hired to protect Everglades wading birds from plume hunters is shot and killed in the line of duty while attempting to arrest a well-known plume hunter for killing egrets.
- F. The U.S. Congress passes the Endangered Species Act to identify and list endangered species. The Everglades is home to a number of threatened and endangered plant and animal species. Some of the best known of these are the Florida Panther, American Crocodile, American Alligator, West Indian Manatee, Wood Stork, and Snail Kite.
- **G.** The Arthur R. Marshall Loxahatchee National Wildlife Refuge is established. The 147,392 acre Refuge contains one of three water conservation areas (WCAs) in south Florida and is maintained to provide water storage and flood control, as well as habitat for native fish and wildlife populations. It represents a significant remnant of the historic Everglades watershed.
- **H.** A major hurricane strikes Lake Okeechobee and breaches 22 miles of muck dike. An estimated 3,000 people drown. This same year, the Tamiami Trail was completed to link Miami and Tampa to each other.
- I. The "Lost Summer" occurs when Lake Okeechobee explodes with a massive algae bloom, and water sent east and west decimates the estuaries on both coasts in what becomes a recurring summer nightmare.
- J. Channelization of the Kissimmee River, the headwaters of the KOE watershed occurs. Before channelization, the river was a haven for a diverse community of wildlife, including at least 39 species of fish and 38 species of water birds. This project converted 44% of the floodplain to pasture, draining approximately 31,000 acres of wetlands.
- **K.** The Everglades Foundation is founded by two outdoor enthusiasts the late George Barley and Paul Tudor Jones II. The Everglades Foundation works tirelessly to bring people together and provide a powerful voice for Everglades restoration at the state and national levels.
- L. The first mile of a total of 3.5 miles of bridges was completed along Tamiami Trail. Raising the Tamiami Trail is an important component of Everglades restoration and will restore the natural flow of water to the Everglades and Florida Bay.
- M. The Everglades Agricultural Area Reservoir project is supported by both the State of Florida and the federal Army Corps. Once the reservoir is complete, water can flow from Lake Okeechobee to the reservoir, once treated, then south into Everglades National Park and Florida Bay. The successful functioning of the reservoir will be crucial in removing the need for the Corps to release huge amounts of nutrient-rich lake water into two rivers, Caloosahatchee and St. Lucie, where it has degraded water quality, caused algae blooms and decimates fisheries and recreational fishing opportunities.
- **N.** The Everglades Forever Act sets forth the plan and the funding mechanism to improve Everglades water quality as well as the amount, timing, and flow of water to the Everglades; and to eradicate and control exotic plants in the Everglades.
- O. Groundbreaking on first construction project to restore America's Everglades Picayune Strand. It is now close to becoming one of the first fully completed CERP projects. Picayune Strand is one of the biggest ecological restoration efforts in the Everglades. It restores more than 80,000 acres of habitat onsite with another 80,000 acres of wetlands and estuaries restoration in the Fakahatchee Strand State Preserve, Ten Thousand Islands National Wildlife Refuge, Rookery Bay National Estuarine Reserve, and Collier-Seminole State Park.
- P. The Herbert Hoover Dike, a system of approximately 143 miles of levees surrounding Lake Okeechobee, is completed in response to a demand for flood control. Over the years, issues with water levels of and distribution from Lake Okeechobee have had serious detrimental effects on the Everglades ecosystem, leading to algae blooms and preventing the natural flow of water from Lake Okeechobee south through the River of Grass.

Rame Leverglades History Timeline	Directions: Use this timeline to fill in the corresponding letter of Everglades history events. Remember, you are categorizing these events in chronological order.	1881 1905 1928 1937 1947 1951 1971 1973 1993 1994 1999 2003 2013 2016 2017-18 2020 Assessment: Read through your completed timeline and think about the events depicted. Respond to the following questions:	Explain some of the early negative events in the Everglades and how these events "set the stage" for an Everglades ecosystem in trouble.	In what decade do you see the most positive steps toward Everglades restoration? Explain why.	What do you think is in the future for Everglades restoration? Explain why.
FOUNDATION	Directions: L	1881 190 <u>Assessment</u> questions:	1. Explair Evergl	2. In wha	3. What c



Name:



# 1881 1905 1928 1937 1947 1951 1971 1973 1993 1994 1999 2003 2013 2016 2017-18 2020

## 1881

A. Hamilton Disston begins drainage of southern Florida wetlands, with a promise from the state of 1 million acres for 25 cents per acre if he succeeds.

## 1905

E. Guy Bradley, a Monroe County Deputy, hired to protect Everglades wading birds from plume hunters is shot and killed in the line of duty while attempting to arrest a well-known plume hunter for killing egrets.

## 1928

H. A major hurricane strikes Lake Okeechobee and breaches 22 miles of muck dike. An estimated 3,000 people drown. This same year, the Tamiami Trail was completed to link the growing hubs of Miami and Tampa to each other.

# 1937

P. The Herbert Hoover Dike, a system of approximately 143 miles of levees surrounding Lake Okeechobee, is completed in response to a demand for flood control. Over the years, issues with water levels of and distribution from Lake Okeechobee have had serious detrimental effects on the Everglades ecosystem, leading to algae blooms and preventing the natural flow of water from Lake Okeechobee south through the River of Grass.

### 1947

C. Two events coincided in this year: (1) Marjory Stoneman Douglas, writer and conservationist, published *The Everglades: River of Grass*, a book that many believe changed the course of history for Florida, igniting Everglades conservation. (2) Everglades National Park is established.

#### 1951

G. The Arthur R. Marshall Loxahatchee National Wildlife Refuge, a 147,392-acre area, is established. The 147,392 acre Refuge contains one of three water conservation areas (WCAs) in south Florida and is maintained to provide water storage and flood control, as well as habitat for native fish and wildlife populations. It represents a significant remnant of the historic Everglades watershed.



J. Channelization of the Kissimmee River occurs. The Kissimmee River forms the headwaters of the **Kissimmee River-Lake Okeechobee-Everglades** ecosystem and before channelization, the river was a haven for a diverse community of wildlife, including at least 39 species of fish and 38 species of water birds For flood protection, the United States Army Corps of Engineers (USACE) channeled the Kissimmee River and created a 30-foot deep, 300-foot wide, 56 mile long drainage canal (C-38). This project converted 44% of the floodplain to pasture, draining approximately 31,000 acres of wetlands. Before channelization, the River was a haven for wildlife, including at least 39 species of fish and 38 species of species of water birds.

# 1973

1971

F. The U.S. Congress passes the Endangered Species Act to identify and list endangered species. The Everglades is home to a number of threatened and endangered plant and animal species. Some of the best known of these are the Florida Panther, American Crocodile, American Alligator, West Indian Manatee, Wood Stork, and Snail Kite.

### 1993

K. The Everglades Foundation is founded by two outdoor enthusiasts — the late George Barley and Paul Tudor Jones II. The Everglades Foundation works tirelessly to bring people together and provide a powerful voice for Everglades restoration at the state and national levels.

#### 1994

N. The Everglades Forever Act sets forth the plan and the funding mechanism to improve Everglades water quality as well as the amount, timing, and flow of water to the Everglades; and to eradicate and control exotic plants in the Everglades.

#### 1999

D. The U.S. Congress approves the Comprehensive Everglades Restoration Plan (CERP), a joint federal-state plan to restore the Everglades and provide water for people and the environment. Congress authorizes the first 10 projects in the plan.

# 2003

O. Groundbreaking on first construction project to restore America's Everglades – Picayune Strand.

#### 2013

L. The first mile of a total of 3.5 miles of bridges was completed along Tamiami Trail. Raising the Tamiami Trail is an important component of Everglades restoration and will restore the natural flow of water to the Everglades and Florida Bay.



I. The "Lost Summer" occurs when Lake Okeechobee explodes with a massive algae bloom, and water sent east and west decimates the estuaries on both coasts in what becomes a recurring summer nightmare. Hypersaline Florida Bay

# 2017-2018

M. The Everglades Agricultural Area Reservoir project is supported by both the State of Florida and the federal Army Corps. Once the reservoir is complete, water can flow from Lake Okeechobee to the reservoir, once treated, then south into Everglades National Park and Florida Bay. The successful functioning of the reservoir will be crucial in removing the need for the Corps to release huge amounts of nutrient-rich lake water into two rivers, Caloosahatchee and St. Lucie, where it has degraded water quality, caused algae blooms and decimates fisheries and recreational fishing opportunities.

# 2020

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