



HUMANITIES AND THE SUNSHINE STATE

TEACHING FLORIDA'S CLIMATES
In partnership with the Florida Humanities Council

JUNE 24-28, 2019 UNIVERSITY OF FLORIDA

LESSON PLAN

Teacher(s): Barbara Colpas/Michelle Valentine

Grade(s): 4/5

Subject(s): Science (Earth Science/Climate and Weather); Language Arts; Florida History

Title of Lesson: Essential Question – “How Does Water Affect My Community?”

Learning Objectives:

Students will become “individual agents of change” by being empowered through “informed optimism”, knowledge, and public engagement.

Students will draw connections to examine historical/political events, human/environmental concerns that have impacted Florida water and climate, specifically in their community, by understanding in the past, being involved in the present, as well as planning for positive change for the future.

Students will identify historical events that manipulated the flow of water through the Everglades and evaluate positive and negative effects of climate change through periods of time related to their community as well as other parts of Florida.

Students will investigate how weather and climate change effects Florida - past, present, and in the future particularly in their community.

Standards Addressed:

SC.4.E.6.6: Humans continue to explore the composition and structure of the surface of Earth. External sources of energy have continuously altered the features of Earth by means of both constructive and destructive forces. *All life, including human civilization is dependent on Earth's water and natural resources.*

Lesson Outline:

1. Introductory Activity to assess prior knowledge, “How Does Water Affect My Community?” - Poster project to compare/contrast how the student's community is portrayed through drawing and through writing - past, present, and future in relationship to water. Share, discuss, and summarize class perceptions. Present open-ended questions based on student posters: What impacted change, who/what benefited or did not benefit from change, how did water impact change, did climate/weather affect changes past, present, future?

2. Historical events related to the Everglades: Early Native Floridians, Early European Exploration and Columbian Exchange, Early European Settlements and Pioneers, Political/ Developmental Impacts on the Everglades and the flow of water, Present day environmental concerns for the community and the Everglades, Ideas for hope for the future especially related to climate change affecting water in the community and the Everglades.
3. Science: Water Cycle, Climate, Temperature, The effects on plant and animal life, Everglades as a water source, Causes/effects of water flow on the watershed and its effects on ecosystems/habitats, Climate changes and hurricanes.
4. Research activities on past hurricanes, canal dredging, land development, agriculture, urban development mapping, population mapping
5. Oral Histories by long-time residents and natives living in the community, interviewing local leaders and community managers, research at the local museums on early community life, visits to local preserves and the Everglades.

Learning Strategies:

1. Accessing prior knowledge
2. Independent research using primary and secondary source
3. Collaborative and cooperative learning opportunities
4. Hands-on Investigations
5. Teacher-directed guidance learning
6. Multi-media visuals and technology
7. Interpreting Maps and charts over time (geography, climate patterns, water flow)
8. Interviews and oral histories
9. Field trips to local museums, local canals and locks, Everglades
10. Guest speakers from SFWM, Waste Management, Fish and Wildlife, Local community leaders and activists

Science Concept(s):

SC.4.6.3 Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.

SC.4.6.6 Identify resources available to Florida such as water, trees, limestone, solar, wind.

SC.5.7.2 Recognize that the sun is an integral part of the water cycle and is connected to all Earth's water reservoirs via evaporation and precipitation processes

SC.5.7.4, 7.5, 7.6, 7.7 Distinguish types of weather patterns, describe characteristics of weather, design family preparedness plans for natural disasters

Humanities Concept(s):

SS.4.A.1.1 Analyze primary and secondary resources to identify significant individuals and events throughout Florida history.

SS.4.A.1.2 Synthesize information related to Florida history through print and electronic media.

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

SS.4.G.1.4 Interpret maps

LAFS.4.SL.2.4 Present a story or experience (Oral History) in an organized manner, using appropriate facts and relevant descriptive details to support main ideas or themes.

LAFS.5.RL.1.3 – Compare and Contrast narrative element from two or more texts

LAFS.5.RI.1.3 – Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in historical, scientific, or technical text

LAFS.5.W.3.7, 3.8 – Conduct research projects that use several sources to build knowledge through investigation of different aspects of a topic using print and digital sources.

LAFS.5.W.1.2 , 2.4,– Write informative/explanatory texts to examine a topic and convey ideas and information clearly

MAFS.5.G.1.1, 1.2 – Graph and data collecting to solve real-world and mathematical problems

Technique(s)/Resource(s) Incorporated from Teaching Florida’s Climates Workshop:

FloridaMemory.com

YouTube videos on the Everglades

Documentaries

Fiction and Nonfiction texts and resources

Oral Histories from community residence

Chroniclingamerica.loc.gov

Local government archives/museums

Everglades, preserves, canals,

Water and Waste companies

Student Assessment Strategies:

Pre- lesson assessment – poster – draw your community 100 years in the past, today, and 100 years in the future based on the Essential Question: “How Does Water Effect My Community?”

Post – Write a letter to your state representative explaining your concerns for climate change on your community as well as for the future of Florida.

Create a “Slogan” or “Billboard”, poster advocating the protection of the Everglades, Climate Change

Compare/Contrast: Design a “Real Estate” Ad trying to sell beach-front real estate today to 100 years in the future.

Project of their choice that examines and supports his/her opinion on the Essential Question: How Does Water Affect My Community (visual commercial, radio ad, newspaper ad, song, poem, rap, mini-play, etc.)

Powerpoint visual of your community: (quick example below) to pitch or promote student image of his/her community.



Benefit to our students:

Students will become “individual agents of change” by being empowered through “informed optimism”, knowledge, and activism.

Students will be aware of the importance of water in their community in relationship to the Everglades understanding and communicating to others how human activity and decisions can directly affect the balance in this ecosystem and how climate change can affect the water levels in the future.

Students will be active participants with the knowledge that a healthy Everglades and climate control is essential for the success of their community in their future.

Resources and Materials (supplies needed for activities):

Variety of fiction/poetry and nonfiction texts

Science Inquiry: water flow tray, sponges, plastic bags, graduated cylinder

Poster board, markers, colored pencils

Maps

Technology: Florida Memory, Everglades videos

Public speakers, field trips

Extensions:

Science Inquiry demonstrating water flow in the Everglades (canals vs free flowing water)

Oral Histories – interviewing individuals recalling past events (flooding, hurricanes, land development, etc)

“Wanted” Poster – Those individuals who damaged the Everglades or those individuals for have helped the Everglades (Governor Broward vs Marjorie Stoneman-Douglas)

PowerPoint – showing how climate change can affect the state of Florida or their immediate community.

Poetry Writing or a Rap about the Everglades