HUMANITIES AND THE SUNSHINE STATE

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

JUNE 15-29, 2018 UNIVERSITY OF FLORIDA

ACTION PLAN TEMPLATE

Teacher(s): Jarrett Roker

Grade(s):11-12

Subject(s): AICE Marine Science

Title of Lesson: Snook population rises and falls in the state of florida

Learning Objectives: By the end of this lesson my students will be able to overlay weather data, human effects, and other factors that have affected the florida snook population and distribution.

Standards Addressed (if applicable): Topic 2. Ecosystems and Biodiversity

Lesson Outline:

- Students will research Snook populations in the state of Florida as far back as they can.
- We will talk about what type of environment snook live in and what environmental factors affect them.(Salinity, water depth, water temperature, humans, food sources)
- The students will then research the history of each of these factors. (Ex). Average temperature change over the last 20 years.

- The students will then overlay the data from the snook population numbers with the environmental factors to see if there are any possible correlations between them.
- The students will then share their thoughts with the class on how and why these factors are affecting the snook population and make predictions on what may happen to their populations in the future.

Learning Strategies:

- Students based research
- Group work
- Oral presentation
- Graphing data collected

Science Concept(s):

- Graphing
- Population rise and fall
- Climate Change (Temp rise and fall)
- Coastline change (habitat transformation)

Humanities Concept(s):

- Human fishing impacts
- State regulation impacts

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

- Habitat change
- Climate change data

Student Assessment Strategies:

- Students will be assessed on their oral presentation of data as well as the graphing of their data collected.

Benefit to my students:

- Students will recognize that there are many factors that can directly and indirectly affect a species population.
- Students will also understand how government regulation is adjusted based on these environmental factors as well as extensive scientific study.

Resources and Materials (supplies needed for activities):

- State snook population assessment data.
- Graph paper
- Temperature records for Florida
- Past and present snook regulations

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"TAKING IT BACK TO THE CLASSROOM"

We know that it's not always possible to develop and implement a brand new lesson plan in a busy curriculum. How do you envision incorporating our experiences in your classroom teaching?

Idea 1

Snook population changes based on environmental and human factors

Learning Goals/Standards

Topic 2- Ecosystems and biodiversity

Idea 2

Looking at human impacts of the nutrient cycle(Us removing nutrients, Us adding extra)

Learning Goals/Standards

Topic 4 Nutrient Cycle

Idea 3

Shell dissolving in an acidic environment.

Learning Goals/Standards

Topic 3- Nutrient Cycle

Topic 7- Chemical and Physical Oceanography

Idea 4

Effect of climate change on food web

Learning Goals/Standards

Topic 2- Ecosystems and Biodiversity

Topic Topic 3- Energetics in a Marine Ecosystem

Idea 5

Learning Goals/Standards

Idea 6

Learning Goals/Standards

What additional resources do you need in order to act on these ideas?