Teacher(s): Madison Howard

Grade(s): 9-12

Subject(s): AP Human Geography

Title of Lesson: Preparing for the Next Hurricane Katrina

Learning Objectives:
Students will be able to explain the migration patterns that occurred during Hurricane Katrina.
Students will be able to evaluate the economic, environmental, and political consequences of the migration that occurred during Hurricane Katrina.
Students will be able to analyze how the city of New Orleans planned for a natural disaster and assess the efficiency of urban planning.
Students will be able to predict the impact of a major natural disaster on the city of Pensacola.
Students will be able to offer urban design practices for the city of Pensacola that promote sustainability and plan for a natural disaster.

Standards Addressed:
SC.912.E.7.6 – Relate the formation of severe weather to the various physical factors.
SS.912.G.1 – Understand how to use maps and other geographic representations, tools, and technology to report information.
APHUG Course Articulation:
Urban areas face economic, social, political, cultural, and environmental challenges.
Evaluate problems associated with urban sustainability.

Lesson Outline:
Students will learn the background history of Hurricane Katrina’s impact on New Orleans and the southern region through a series of photos, maps that show evacuation routes and population migration, and oral histories that retell what it was like when Hurricane Katrina hit. Students will make a diagram that shows the connections that stem from Hurricane Katrina – to include the impacts on economies (in New Orleans and the cities that took in refugees), the impact on politics (what was FEMA’s role?), and the impact on culture and attitudes.

After learning about Hurricane Katrina in depth, students will be asked about their own experience with extreme weather. Students will be exposed to data that shows that extreme weather is occurring more frequently and examine hurricane trajectories from the last 20 years. Examining hurricane trajectories will show that Pensacola has a high probability of being affected by a major hurricane.

Students will be charged with researching what the city of New Orleans had done to prepare for natural disasters (the levy system) and assess the effectiveness of their planning. Then, students will research Pensacola’s current precautions against natural disasters. The final assessment for this project will be a student letter to Pensacola’s government figures and city planners that detail the threat of natural disasters and specific actions that the city should take to increase sustainability and to prepare for a natural disaster.

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Systems thinking connection (learning habits and/or tools used):

Students will use systems thinking to map out connections between one natural disaster (Hurricane Katrina) and the impacts on several sectors (migration of the population, economic shifts, loss of ecology, change of attitudes, reaction of government)

Science Concept(s):
- Weather patterns
- Rise in extreme weather

Humanities Concept(s):
- Economics
- Migration
- Geography
- Urban planning

Student Assessment Strategies:

Formative Assessment:
- Mapping migration and economic movement resulting from Hurricane Katrina
- Reading maps and charts on weather patterns

Summative Assessment
- Letter to city planners on planning for the next extreme weather event

Benefit to my students:

My students will benefit from realizing the real threat of natural disasters that will likely affect Pensacola in the future. Hopefully, students will act on their ideas regarding sustainability and continue to encourage their family, community, and government to act as well. My students could move on to become city planners, civil engineers, educators, parents, etc. No matter the realm that my students move on to, practicing sustainability and planning for the changing future will benefit everyone.

Resources and Materials (supplies needed for activities):

Students will need access to digital histories (pictures, video, and oral recordings) of Hurricane Katrina. Students will also need access to information on New Orleans’ city planning. Students will learn about Pensacola’s city planning through our city website and from talking with a city planner. Students will use paper to present their big ideas for sustainability and they will print and email their proposals to the city of Pensacola.