

Title

Rising Tides-FloodZone

Estimated Time for Completion of Lesson

3 class periods

Concept/Main Idea of Lesson

In this lesson plan, students will examine the rising sea levels associated with climate change and its impact on various cities around.

Intended Grade Levels

Grades 6-12

Infusion/Subject Areas

Visual Arts

Social Studies

Science

Curriculum Standards

Next Generation Sunshine State Standards

- Visual Arts:

VA.912.C.1.2: Use critical-thinking skills for various contexts to develop, refine, and reflect on an artistic theme.

VA.912.C.1.4: Apply art knowledge and contextual information to analyze how content and ideas are used in works of art.

- Social Studies:

SS.912.G.5.1: Analyze case studies of how the Earth's physical systems affect humans.

SS.912.G.5.2: Analyze case studies of how changes in the physical environment of a place can increase or diminish its capacity to support human activity.

SS.912.G.5.6: Analyze case studies to predict how a change to an environmental factor can affect an ecosystem.

- Science:

SC.7.E.6.6: Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.

SC.912.L.17.16: Discuss the large-scale environmental impacts resulting from human activity, including waste spills, oil spills, runoff, greenhouse gases, ozone depletion, and surface and groundwater pollution.

SC.912.L.17.4: Describe changes in ecosystems resulting from seasonal variations, climate change and succession.

National Standards for Arts Education

Visual Arts Standard 7: Perceive and analyze artistic work.

Visual Arts Standard 8: Interpret intent and meaning in artistic work.

National Council for the Social Studies

People, Places, & Environments

Science, Technology, & Society

Global Connections

Common Core

CCSS.ELA-Literacy.CCRA.SL.2: Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

Instructional Objectives

The student will:

- Analyze photographic works;
- Discuss the connections between rising sea levels and global warming;
- Investigate the impact rising sea levels have/will bring to their selected city (human impact, other);
- Explain measures being taken/that can be taken to counter the rising sea levels for their selected city;
- Reflect on what they can do to reduce the impact of rising sea levels and global warming.

Learning Activities Sequence**Day 1:****Attention-Getter: VTS**

Activate the ppt presentation. Introduce the title of the lesson. Advance to slide 2.

Engage the entire class in a conversation about the photograph on the slide by asking the following questions:

- What is going on in this picture?
- What do you see that makes you say that?
- What more can we find?

Learning Activity 1: Reading & Class Discussion

Advance to slide 3. Click on the hyperlinked title to display an article published on November 4, 2019 in the Tampa Bay Times (website:

<https://www.pressreader.com/usa/tampa-bay-times/20191104/281509342991344>).

Take turns having students volunteer to read aloud sections of the article. After each section pause and ask for a student to summarize the section.

Learning Activity 2: Think-Pair-Share

Advance to slide 4. Have students engage in a think-pair-share around the quote by photographer Anastasia Samoylova, "Living in Miami is bittersweet: it looks and feels

like a paradise, but the only secure roots belong to mangrove trees.” This quote is about rising sea levels and the impact it is having on Miami, Florida where Samoylova resides.

Learning Activity 3: Video & Class Discussion

Explain to students that they will now watch a video on rising sea levels. One option is “Sea Levels Rise” found online at: <https://oceanservice.noaa.gov/education/sea-level-rise/welcome.html>. The video is 23:16 minutes in length. If a shorter video is preferred, have students watch a video called “NASA Earth Minute: Sea Level Rises” found online at: https://www.youtube.com/watch?time_continue=36&v=msnOHuPep9I&feature=emb_title. Video is 1:30 minutes in length.

Closing Activity: Class Read Aloud & Quote to Ponder

Advance to slide 5. Instruct students that they will now learn about the photography of Miami-based photographer Anastasia Samoylova. Her work entitled, “FloodZone” focuses on changes in nature and the affects it has on society. Have students read a short article highlighting the exhibition “FloodZone.” The article can be found by clicking on hyperlink in the presentation or copying and pasting the link below in a new browser: <https://www.mysterytribune.com/floodzone-landscape-photography-of-anastasia-samoylova/>

After reading the article, have students ponder a quote from the artist: “FloodZone aims to manifest the precarious psychological state of lives that teeter between paradise and catastrophe.”

Day 2:

Learning Activity 2: Research Project

Activate the ppt and advance to slide 6. Have students research rising sea levels. Ask them to select a city that is impacted/projected to be impacted by rising sea levels. Have students research the following:

- Rising sea levels
- Global warming
- Extent of the problem for their select city
- Impact the rising sea levels is/will bring to living things/ecosystem
- Measures being taken/that can be taken to counter the rising sea levels for their select city

Students can share their work in any medium desired (ppt, oral presentation, artwork, podcast). Encourage critical analysis of the topic and creativity in the final product. Have students share their work with the class.

Select websites that can serve as starting points for students:

<https://thecityfix.com/blog/5-major-cities-threatened-climate-change-sea-level-rise-emily-cassidy/>

<https://www.weforum.org/agenda/2019/01/the-world-s-coastal-cities-are-going-under-here-is-how-some-are-fighting-back/>

<https://www.theguardian.com/cities/ng-interactive/2017/nov/03/three-degree-world->

[cities-drowned-global-warming](#)

<https://www.theguardian.com/cities/2017/nov/03/miami-shanghai-3c-warming-cities-underwater>

<https://www.nytimes.com/interactive/2019/10/29/climate/coastal-cities-underwater.html>

<https://www.cnn.com/2019/10/30/world/rising-sea-cities-study-intl-hnk-scli-sci/index.html>

Day 2:

Learning Activity 2: Research Project Showcase

Use this day for students to share their project with the class. This is an opportunity to encourage students to work on their public speaking and presentation skills. Conclude the showcase with a class discussion on what students can do to help reduce the impact of rising sea levels and global warming.

Evaluation

- Class participation in VTS, think-pair-share, and classroom discussions.
- Research project and showcase (as described above)

Materials and Resources

Computer

Projector

Screen

Pencils/Pens for writing

Speakers

Extra Activities

Have students watch “Climate Change 101 With Bill Nye the Science Guy” found online at :<http://www.smithsonianmag.com/videos/category/science/climate-change-101-with-bill-nye-the-science/?jwsourc=cl>. Video is 4:33 minutes in length.

Websites

Climate Change 101 With Bill Nye the Science Guy. Found online at:

<http://www.smithsonianmag.com/videos/category/science/climate-change-101-with-bill-nye-the-science/?jwsourc=cl>

Sea Levels Rise. Found online at: <https://oceanservice.noaa.gov/education/sea-level-rise/welcome.html>.

NASA Earth Minute: Sea Level Rises. Found online at:

https://www.youtube.com/watch?time_continue=36&v=msnOHuPep9I&feature=emb_title

References

Boryga, A. (2019, Nov. 4). A glimpse of the ‘new normal’ in A. Florida. Retrieved from: <https://www.pressreader.com/usa/tampa-bay-times/20191104/281509342991344>.

New York Times (n.d.). FloodZone: Landscape photography of Anastasia Samoylova.

Retrieved from: <https://www.mysterytribune.com/floodzone-landscape-photography-of-anastasia-samoylova/>.