

FUTURE SEA LEVEL.ORG

Future Sea Level Art Installation Lesson Plan

Summary of Lesson:

Students will conduct an art installation using FutureSeaLevel.org gaffer's tape, wrapping a building at a height of 1 meter to depict the possible consequence of continued human induced global climate change. Complementary in-class and at-home assignments will be given to ensure understanding of climate change concepts.

Lesson Objectives:

1. Students will be able to list 3 human activities that release excessive CO₂ into the atmosphere, causing global climate change.
2. Students will be able to identify 3 implications of climate change, including rising sea levels.
3. Students will be able to list 3 ways they can reduce the amount of CO₂ released into the atmosphere.

Target Grade/Age Range: 3rd grade and up.

Time Needed:

- Day 1: 30-60 minutes for activities and discussion of causes of climate change. 15 - 30 minutes for on-line assignment.
- Day 2: Up to 1 hour for installation of FutureSeaLevel.org gaffer's tape. 30-60 minutes for activities and discussion summarizing causes and emphasizing solutions for climate change.

Materials Needed:

- FutureSeaLevel.org gaffer's tape. (Note: Order at least 3 months prior to date of art installation. Measure the perimeter of the building(s) that you would like to wrap to determine amount of tape needed. Visit www.futuresealevel.org/do/ordertape.html to order. Scholarships may be available to cover cost of tape, please email to inquire.)
- Internet Access

Instructor Background Information:

Please visit www.futuresealevel.org/learn.html to learn basic information about the causes, effects, and solutions to global climate change and sea level rise.

Class Outline/Procedure:

Day 1

Introduction to climate change and rising sea level:

1. Introduce your students to the basic concepts behind climate change, discussing some of the human sources of our current warming trend, such as deforestation, burning coal for electricity, and burning oil and gas for industry and transportation.
2. Discuss with your students the consequences of the current climate change trend, including shifting weather patterns, changing ocean currents, and the melting of glaciers and arctic ice cap, resulting in rising sea levels.
3. Have students create posters explaining the consequences of climate change.
4. Have each student visit www.futuresealevel.org/do/do1.html at home with a parent or together in class. Instruct them to take either the Kids' Footprint quiz (3rd-7th grades) or the Nature Conservancy Carbon Calculator quiz (8th-12th grades) and bring their scores into class. Have your students complete the FutureSeaLevel.org pledge to introduce them to

ideas for class discussion of solutions.

Day 2

Art Installation Set-Up Procedure:

1. Determine desired height of tape installation (suggested height is 1 meter, the projected amount of sea level rise in the San Francisco Bay Area over the next 100 years).
2. Have students work together to apply tape to building(s) at this height, carefully cutting around doorways. Also display posters that the students made, so others at the school can learn what the tape is for.
3. In dry weather, tape may stay up for up to one week. In high humidity weather, tape may fall down quickly, so you may need to reapply sections or remove sooner.
4. After taping, have students stand by the tape and discuss as a group how a sea level rise of this height or higher might impact every day life, such as losing access to homes, businesses and airports in low lying areas.

Solutions to climate change and rising sea levels:

1. Share student results to the carbon footprint quiz by creating a bar graph of students' scores, and discuss how personal actions add up to make big changes, such as riding your bike instead of driving, buying local, composting, reusing bags, or turning off lights that are not in use.
2. Discuss ways students can share what they learned with others and teach others about rising sea levels. For example, you can submit your pictures and info from your wrapping to Future Sea Level at www.futuresealevel.org/share/share3.html.

Assessment:

- Have your students write a reflection paper, describing 3 ways they are going to change their behaviors to reduce their carbon footprints.
- Have students write a letter to one of their government representatives about why climate change is an important issue to them.

Clean up:

- Please remove FutureSeaLevel.org tape carefully from building(s) and dispose of through your local garbage collection. Tape should not leave any residue or damage building, but FutureSeaLevel.org is not responsible for damage.

Additional activities:

- As a class project, use the school carbon calculator spreadsheet available through www.futuresealevel.org/do/do1.html to determine your school's carbon output. Determine possible strategies to lower your school's carbon output and start a campaign!
- This project could be tied into an Art or Social Studies lesson studying the function and importance of art in social movements.
- Students could go on a field trip to a farm or a farmers' market to learn about locally grown food.
- After 1 month, have students return to Carbon Calculators to see if they have improved their scores, then bring scores into class, compare and discuss.
- For more activities and educator resources, please visit www.futuresealevel.org/learn/learn2.ad2

This lesson plan aligns with CA State Standards and CA EEI EP&C.

Please visit www.futuresealevel.org/learn/learn2.ad2 for more information.