

STEAM Activity: Going Green

Type of Teacher Tool: Whole Group

Targeted Grade Level(s): 5-8/9-12

Targeted Curriculum Areas: Engineering/Visual Art

Learning Objectives:

The learner will:

1. explore methods to design and live green.
2. engage in critical thinking and creative thinking.
3. collaborate in creating green baby diapers.

NATIONAL STANDARDS

Next Generation Science Standards

Earth Science 5-ESS3-1

Obtaining, evaluating, and communicating information in 3–5 builds on K–2 experiences and progresses to evaluating the development and of ideas and methods.

- Obtain and combine information from books and/or other reliable media to explain phenomena or solutions to a design problem.

Fine Arts Visual Arts Creating grades 9-12

VA:Cr1.1.6a—Combine concepts collaboratively to generate innovative ideas for creating art.

Resources/Materials Needed:

Various drawing materials—paper, colored pencils, markers, fine tip markers etc.

Paper, Cloth, paints pencils, tape, glue

Videos: Environment— 1, 3, 5, 11, 12, 13, 14, 15

Teacher Instructions:

1. Have half the class watch the video the video Environment 14: Earth Day—Building Green Program 1 the other half watch Environment 15: Earth Day--Building Green Program 2.
2. After viewing, have students share interesting and important science and engineering concepts of living green that emerged from the program they watched.
3. Have students brainstorm potential green products that they think would make a difference based on what they learned in the videos.
4. Split the class into 3 groups and have each group watch two of the videos below:
Environment--1, 3, 5, 11, 12, 13
5. As they watch in small groups, students should sketch dominant environmental images that come to mind as they learn from the videos as well as any additional potential green products that come to mind.
6. After viewing the videos, students in their small groups should discuss important “green themes” that emerged for them and share the green products they brainstormed.
7. From all ideas presented, each small group should select one green product they are going to create/market and list reasons why it is a valuable product to put on the market.
8. As a group, students should then share the environmental sketches they drew and determine the image they believe best fits the product they plan to develop.

9. Using the environmental image selected, students should create a poster or magazine layout advertising their product and its benefits

Assessment/Evaluation Option

1. Oral critique of the practicality of the green qualities of the product created.
2. Share with the class their product design and poster/layout.
3. Oral Class critique of all designs.

Extension Assignment

1. Develop a marketing plan for the new product.
2. Share their product idea with a professional to learn more about what it would take to actually create the product and successfully market it.