

Waste Activities

Grade 1-5 Lesson Plan

Description

Universal activities centering on waste and consumption environmental issues. Each activity can be developed to fit the needs of students.

Duration

Each activity takes about 25 minutes so that an activity from Part I and Part II can be combined to extend over an average class period.

Materials

- Concept Chairs: white board, laptops (optional)
- Waste and Landfill Inventory: actual class trashcan full of safe and dry trash, sheet, cardboard boxes large enough to fit your students (smaller cardboard boxes could be combined to make a bigger one)
- Make paper: mold and deckle (one for every 20 students or your discretion), deep tub, shredded paper, cardboard, spatula, markers (optional)
- Fill Bottles for Earthbench: empty water bottles, sand, nonorganic waste

Instructional Procedures Part I (Choose One of Both)

Concept Chairs

Environmental projects provide the perfect platform to engage students in meaningful discussions about our planet's increasingly

interdependent human and ecological systems.

Present a controversial statement to the class and ask them to take a stand on the issue. For example: Technology is the answer to all of our problems or Everyone should recycle. In order to come up with one of your own, think about an environmental invention or practice and create a generalized statement about it. Words like all, every, and each exclude exceptions, thereby increasing controversy.

Display the statement so that everyone can see it. Arrange the classroom's seats into three sections. One for those that agree, disagree and then those in the middle.

Allow some time for students to make a decision and encourage conversation between those of the same section. One could even have each group have a laptop to find a source of evidence of why they support or oppose the statement. Then, allow every person that's interested to explain to the entire class why they have chosen their particular stand and the facts that support them.

The teacher should play a role as making sure the right questions are being asked and to encourage appropriate and friendly conversations. Moreover, teachers should become the Devil's advocate and try to ask questions that make students question their assumptions.

Waste and Landfill Inventory

Lay down a sheet and dump your class's trash can onto the sheet. Allow students to categorize the trash into groups. Students can be creative and categorize them by color or even smell. Teachers should also encourage categories like paper, plastics, and food.

Show students a graph of what products Americans throw away the most. Ask students if that's what their classroom's trash can look like. Ask students how some of the items in their trash can be reused. For example, even umbrellas can be reused for their fabric to make clothing. Paper can be recycled and reused. Students can listen to Jack Johnson's "Reduce, Reuse, Recycle" song to find inspiration.

Now, use large cardboard boxes and see how many you students you can fit inside. This could be done outdoors. Teachers should tell students to imagine that they are the waste and the boxes are landfills because landfills are where our trash goes. Just as there are limited number of students who can fit into the cardboard boxes, landfills eventually reach a capacity so we have to find ways to save as much space in the landfills as possible. Show students a photo of a landfill model and one of an actual landfill. Ask students to close their eyes and imagine how it might smell, feel, and look to be in a landfill. Students can shout out their answers. This means everyone is going to have to do their part to reduce their waste. These are great photo moments.

Part II (Choose One or Both)

Make Paper

First, teachers should watch this video to making paper (<http://familycrafts.about.com/video/How-to-Make-Paper-With-Kids.htm>).

Making paper is really easy, but the entire process cannot be done in 25 minutes. Teachers should complete prep work such as having materials ready and already having shredded paper soaking in a tub of water ready to be dipped. We recommend adding grass clippings and even seeds. Avoid cardboard because the thickness of it makes the paper dry unevenly. One grocery shopping bag full of shredded paper makes about 10-12 sheets.

Students should be involved in using the mold and deckle to create their own sheet of paper. Leave the sheets to dry and allow students to take home their paper the next day. We suggest letting the paper dry on your cardboard and using a spatula to take the paper off when nearly dried. Be careful with new paper.

For an extra 25 minutes, teachers can have students draw on their sheets of paper. Markers with a thick point, Sharpie, and paint works best on homemade paper.

Fill Bottles for Earthbenches

Earth Savers Club partner, Peace on Earth Movement, creates neat earthbenches made from filling plastic water bottles with trash and then using clay to make bricks and then a bench. Here are some examples of them (<http://www.earthbench.org/how-to-bottle-brick.html>)

and here is a graphic of how they are made (<http://www.earthbench.org/index.html>).

Teachers need to already have plastic bottles and materials. Students will stuff the bottles with sand and non-organic waste.

Common Core Standard Suggestions

CCSS.ELA-LITERACY.CCRA.SL.1
CCSS.ELA-LITERACY.CCRA.SL.4
CCSS.ELA-LITERACY.CCRA.R.1
CCSS.ELA-LITERACY.SL.1.4
CCSS.ELA-LITERACY.SL.2.4
CCSS.ELA-LITERACY.SL.3.4
CCSS.ELA-LITERACY.SL.4.4
CCSS.ELA-LITERACY.SL.5.4

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