



YCS Farm to School Committee

School Garden Curriculum

Food Waste

Overview

In the United States, as much as 40 percent of harvested food is never eaten. Students will learn why food waste is a problem and explore strategies to reduce it. Extension projects will further empower students to take action to reduce food waste in their homes, schools, and communities.

Grade Level

9 - 12

Subjects:

Social Studies, Science

Objectives:

- Explain why food waste is a problem.
- Describe what happens to food waste.
- Identify strategies to reduce food waste.

Time

90 minutes

Materials

- [Food Waste slides](#)

Source Acknowledgment

Adapted from Johns Hopkins *FoodSpan Curriculum*

https://www.foodspan.org/_pdf/lesson-plan/unit3/lesson13-wasted-food-lessonplan.pdf

Background Information

Procedure

Warm Up: The Problem of Food Waste

1. Ask students to think back over the last 3 days to everything they ate. Ask them to write down all the food they didn't finish and threw out.
2. *Why did you throw out that food?*
3. Share the statistic that In the US, 40% of all food harvested is thrown away or not eaten. Ask them to brainstorm reasons why food waste happens along our food chain: write up the categories:
 - a. Farm
 - b. Processing
 - c. Grocery stores
 - d. Restaurants
 - e. Consumers
4. Collect initial responses--you will return to this list after the next activity.

Why Food Waste Matters

1. *After thinking about why food waste happens, let's talk about why it matters.* Think pair share why food waste is an important issue.
2. Show the clip "Food Waste: Last Week Tonight with John Oliver" (18 mins)
<https://www.youtube.com/watch?v=i8xwLVb0ILY>
 - a. Clip has some mildly inappropriate language and jokes
 - b. Alternative video: https://www.youtube.com/watch?v=1MpfEeSem_4
3. Show the waste by food group slide
4. Discuss:
 - a. *What are the problems with food waste?*
 - i. hunger in the US
 - ii. greenhouse gases emissions from landfills
 - iii. loss of profits for companies
 - iv. wasted resources (land and water)
 - v. Families wasting money on food they won't eat
 - b. *Where does food waste come from?*
 - i. Overstocking grocery store
 - ii. Strict guidelines for how produce should look
 - iii. Sell by dates
 - iv. Fear of lawsuits
 - v. No economic incentive to donate
 - c. Add more reasons to initial list

What Can We do about Food Waste?

1. Ask students what we can personally do about food waste
2. Display the EPA Food Recovery Hierarchy slide explaining that the top is the most desirable outcome.
 - a. Reducing food waste at the source: Businesses or individuals can avoid purchasing food they will not use.
 - b. Feeding people: Excess food can be donated to soup kitchens, food pantries, etc.

- c. Feeding animals: Food that might not be appropriate for humans can be fed to livestock.
 - d. Industrial uses: Food waste is used in the manufacture of biofuels and bioproducts such as building materials.
 - e. Composting: Through decomposition, this process converts organic matter—such as food waste, crop residues, or animal manure—into a dark, spongy material that enhances soil fertility.
 - f. Incineration or landfill: If the above interventions are not used, this is where food waste ends up.
3. Ask: Why do you think the EPA ordered the list in this way? Do you agree with the order?
 4. Divide students into five groups and assign each group one of the top five interventions in the food recovery hierarchy (refer to slide). Have students create a proposal for a program to reduce food waste in their assigned area. Encourage them to think about how this applies to their community (e.g., the “feed hungry people” group could create a plan for their school to donate excess cafeteria food to a local soup kitchen).
 - a. Ask groups to research local food recovery groups and local initiatives
 - i. E.g. Food Gatherers, Food Recovery Network (U of M)
 5. As groups share back, continue to add their ideas to the list on the board.

Evaluation

Ask students to write about one individual action they can take to reduce food waste in their life.

Extension Activity/Adaptations

Do a [Food Waste Audit](#) in your school cafeteria. Have students observe the amount of food wasted and come up with a proposal to address food waste.

Start a compost pile at your school