

Environmental Stewardship

Lesson 2: Discovering our footprint in generating waste

Grade Level: 9-12

Time Required: ~50 minutes

Summary/Objectives

The purpose of this lesson is to analyze the human impact on water quality. Students will become familiar with the waste that they produce each day, as well as how that waste can be categorized.

Engineering Category

Environmental Engineering

Keywords

Biodegradable and Nonbiodegradable Waste

Educational Standards

[HS-LS2-7 Ecosystems: Interactions, Energy, and Dynamics](#)

Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.*

[HS-ESS3-4 Earth and Human Activity](#)

Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.*

I can:

- Classify waste into several categories.
- Identify how much they are producing compared to the average American
- Begin to analyze the impact that different types of waste have on the environment.

Associated Activities

- Recap of field trip questionnaire
- Video (Shows daily activities that produce waste)
- Small group reflection & discussion to determine how much waste they produce in a day
- Classifying that waste as biodegradable or nonbiodegradable
- Analysis of EPA paper which will allow students to compare their waste production to the national average.

Assessment

- [Waste production log/worksheet](#)

Contributors

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Name: _____

Period: _____

Waste Production Log

Directions: Throughout the day, keep track of everything you throw away. Approximate the weight of that substance.

Waste (<i>What are you throwing away?</i>)	Approximate weight (<i>in Pounds</i>)	Biodegradable (y/n)
TOTAL WEIGHT		

Part 2: Compare your data with your group. Find the average weight of waste that your group produces.

Name	Weight of Waste
Average Weight	

Summing up:

1. Review your table. How much of the waste you generated was biodegradable?
2. What are some things you could do to reduce your waste generation?
3. How could you reduce your nonbiodegradable waste?
4. How much waste (in pounds) do you think the average person in the United States generates daily?