



Taking a Bite Out of Lunchroom Waste

Lesson 1: What is trash? Where does it go?

1B: What is Trash?

Anchoring Phenomena:

How can we **reduce** marine debris?

Investigative Questions:

What is trash?

Lesson Goals:

What students will do: Students will analyze photos of trash and the trash data from their cleanup and come up with their own definition for trash.

What students figure out: A definition for trash

NGSS alignments

Investigative questions	Grade Level Performance Expectations	Disciplinary Core Ideas	Science and Engineering Practices	Cross-cutting concepts
What is trash?	<p>4-ESS3-1 Earth and Human Activity - Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.</p> <p>HS-ESS3-2. Earth and Human Activity - Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.</p>	ESS3.A Natural resources	<p>1- Asking questions (for science) and defining problems (for engineering)</p> <p>3- Planning and carrying out investigations</p> <p>8 - Obtaining, evaluating and communicating information.</p>	<p>1- Patterns</p> <p>2 - Cause and effect</p> <p>7 - Stability and change</p>

Materials:

[Student journals](#)

Optional: [Trash sample](#) (helpful for younger students)

Lesson Prep:

- Collect trash for a trash sample
- Determine how (Review and Reflection) you will remind students of the big idea, reduce marine debris, and set the stage for this lesson.
- Review [The Story of Stuff video](#) - *Important note: this video clearly blames industry and our attitude of consumerism for environmental issues and may bring out strong emotion in students. Our team feels there is value in this when used thoughtfully and there are additional resources connected to the [Story of Stuff Project](#) that are powerful.*

Lesson Steps:

Exploration: What is trash?

1. Review the BIG idea with students: What is trash? Where does it go?
2. Invite your community partners to join the students in building the classroom definition of "trash." This might be the same person/people that joined you for your cleanup or a new partner. This connection could be in-person or through virtual meetup. Allow the community partner a few minutes to introduce themselves and explain or remind students of their experience with marine debris. Example: A member of a local Trout Unlimited group could share how they want to protect trout streams for future trout fisherpeople.
3. Have students brainstorm in small groups "What is trash?", "What types of things do we throw away?" to help them define and build a shared description of trash. A trash sample might be useful with elementary students
4. Have student groups take turns adding to the understanding until a shared definition of trash is determined and includes items that show the depth and breadth of our trash.
 - a. Single use items - candy wrappers
 - b. Longer lived items - bed, vacuum cleaner, car, bike
 - c. Everyday items - newspapers
 - d. Food waste - the crust from a sandwich or apple core
 - e. Old clothes, shoes, boots
 - f. Organic items - weeds or pet poop
 - g. Items from different types of materials (metal, glass, plastic, paper, etc.)
5. Look at [the U.S. Environmental Protection Agency's overview](#) of what makes up trash in the United States and lead a discussion with your students.

Exploration: Where does our trash go?

6. Brainstorm with students: Where does our trash go when we throw it away?
 - a. Ask students to record in their journals their answers to these two questions.
 - i. Do you think all trash is treated the same? Why or why not?
 1. Example: Trash from grocery store vs. trash from home
 - ii. Do you think all trash ends up at the same place? Why or why not?
7. *MS/HS Extension - Watch video "[The Story of Stuff](#)" (21 minutes)*
 - a. *Ask students who the video feels are responsible for our environmental issues?*
 - i. *How do you know who they blame? What evidence is in the video?*
8. *MS/HS Explore with students how our society culture has changed in regards to "trash"*
 - a. *Coming out of the world wars and the depression our culture reused virtually everything and there was little trash. Businesses had to teach people it was "good" to use single use items.*
 - i. [How We Created a Throwaway Society](#) Article
 - ii. [Keep America Beautiful Video](#) (1 minute)
 - iii. [Big Business and Plastic Use](#) Article
 - iv. [The Litter Myth Throughline Podcast](#)
9. *HS Extension - investigate corporate responses to waste disposal.*
 - a. *Read the blog [Greenwashing Examples : The 9 Biggest Fines Given to Companies](#)*
 - i. *What is greenwashing?*
 - ii. *Why might it be important to help people learn about greenwashing*

[Great Lakes Literacy Principles Connections:](#)

- (1) The Great Lakes, bodies of fresh water with many features, are connected to each other and to the world ocean.
- (5) The Great Lakes support a broad diversity of life and ecosystems.
- (6) The Great Lakes and humans in their watersheds are inextricably interconnected;
- (8) The Great Lakes are socially, economically, and environmentally significant to the region, the nation and the planet.