

FreshkillsPark

Trash, Sustainability, and Landfills Virtual Program

Description: What happens to my trash after I throw it away? Students will explore the story of trash, from garbage can to landfill, and explore the idea that there is no such place as “away”. Students will learn about the complex engineered systems that contain waste after it enters a landfill. Finally, students will brainstorm ways to reduce the amount of trash they create.

Aligned with Next Generation Science Standards

K-ESS3-3	MS-ESS3-3	HS-ESS3-4
3-5-ETS1-2	MS-ESS3-4	HS-ETS1-3
5-ESS3-1		

Essential Question: What happens to trash after it is thrown away?

Field Trip Vocabulary

Decompose: Process by which organic matter decays

Landfill: A place where trash goes after it is thrown away.

Landfill gas: A mixture of carbon dioxide and methane created when trash decomposes

Landfill engineer: Scientist who designs and builds systems to keep landfills safe.

Leachate: Wastewater created when water mixes with trash at a landfill.

Landfill Cap: Layers of soil and plastic that are impermeable and protect the air, water, and soil from the trash.

Impermeable: Impossible to move in or out.

Prepare for the Program:

- **Bring:** Students should bring 1 piece of trash or recycling for an activity.
- **Tech Set-up:** To set up a virtual program, choose whether you'd like to log on individually using tablets, or log on as a class using a smartboard. If using a smartboard, make sure you have a connected device with a functional camera and microphone so I can hear and see the students. If using tablets, make sure that students are muted to prevent echoing.

Pre-trip activities:

- Preview Freshkills Park with [this 3-minute video](#) or another resource from the [Freshkills Park Resource Bank](#). Students may prepare questions to ask during the presentation.
- Ask students to keep a “trash diary” for one day. Keep a running list of everything you throw away in one day.

Post-trip activities:

- **Share Feedback:** Fill out the [Virtual Program Survey](#).
- **STEM Challenge:** [Design and test a landfill design](#) with this lesson from Teach Engineering.
- **Learn More:** Take a virtual tour of the [Fresh Kills Leachate Treatment Plant](#).
- **Take Action:** Plan a [volunteer day](#) at Freshkills Park, or reduce waste at your school with [these tips](#) from the DOE Office of Sustainability.