



"America Recycles: Small Acts, Big Impact" November 2024 Lesson Plan - Middle School

Lesson Overview

In this middle school lesson, students will delve into the environmental and economic impact of recycling in the U.S., examining how individual and collective recycling efforts can significantly reduce waste. Through interactive activities such as analyzing real recycling statistics, watching a video on the life cycle of recyclable materials, participating in a hands-on sorting game, and designing recycling advocacy campaigns, students will develop a deeper understanding of how small acts, like recycling, have a big impact. They will explore what materials are recyclable, why recycling is essential to conserving resources, and how local and global communities benefit when people work together for a greener future.

Objectives

By the end of the lesson, students will:

1. Understand the environmental and economic impacts of waste and recycling in the U.S.
2. Identify materials that can be recycled and explore the life cycle of recycled products.
3. Analyze real-world recycling data to assess the importance of small, individual actions.
4. Collaborate to create a recycling advocacy campaign to promote recycling in the school or community.

Time:

1 hour + optional extension activities

Materials Needed:

- Recycling bins (labeled for different materials: paper, plastic, metal, glass)
- Printable recycling worksheets and data charts
- Reading materials (suggested below)
- Video on the recycling process (suggestion provided below)
- Small items for sorting activity (plastic, metal, paper, etc.)
- Posters and markers for advocacy campaign
- Computers/tablets for research

Vocabulary:

- Incinerator
- Contamination



- Conserve
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Introduction (10 minutes)

1. **Hook Question:** Ask the class, "How much of our waste do you think we actually recycle?"
 - Share this stat: Only about **32% of the 292 million tons** of waste created in the U.S. each year is recycled. The rest ends up in landfills, incinerators, or polluting the environment.
 2. **What is Recycling?:** Define recycling as the process of collecting and processing materials that would otherwise be thrown away and turning them into new products.
 3. **Why Recycle?:** Discuss how recycling saves natural resources, reduces pollution, and supports the economy by creating jobs in the recycling and manufacturing industries.
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Video (10 minutes):

Show the video "**How Recycling Works: The Journey of Your Trash**" by National Geographic (available on YouTube). The video provides an in-depth look at how recyclable materials are collected, processed, and transformed into new products.

Group Activity: Waste & Recycling Data Analysis (15 minutes):

1. **Objective:** Understand the environmental and economic impact of waste.
 2. **Data Analysis:** Provide students with charts and graphs showing recycling rates, landfill data, and the environmental benefits of recycling (e.g., energy savings, reduction in carbon footprint). Break students into small groups to analyze the data and answer questions such as:
 - What materials are most recycled in the U.S.?
 - How does recycling save energy and reduce pollution?
 - What could happen if we stopped recycling?
 3. **Discussion:** Groups present their findings and discuss how individual actions, like recycling a single aluminum can, contribute to reducing waste and saving energy.
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Recycling Sorting Challenge (10 minutes):

1. **Objective:** Teach students the importance of proper recycling habits.
 2. **Setup:** Divide the class into teams. Each team will be given a mix of items (plastic bottles, cardboard, glass jars, aluminum cans, food waste, etc.). Their task is to correctly sort these items into the appropriate recycling bins.
 3. **Discussion:** After the activity, discuss the importance of sorting recyclables correctly and the consequences of contamination (e.g., food-soiled items can ruin a whole batch of recyclables).
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Recycling Advocacy Campaign (15 minutes):

1. **Objective:** Develop advocacy skills and promote recycling.
 2. **Campaign Creation:** In small groups, students will brainstorm and design a recycling campaign to promote better recycling habits in their school or community. The campaign could include posters, slogans, social media ideas, or proposals to improve recycling bins around campus.
 - o Encourage them to include facts from the data analysis, such as how small actions (like recycling one ton of paper) save up to **17 trees** and conserve resources.
 3. **Presentation:** Groups will present their campaign ideas to the class.
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Closing Activity (5 minutes):

1. **Class Discussion:** Ask students to reflect on how their perception of recycling has changed. Prompt them with questions like:
 - a. How does recycling make a difference globally?
 - b. What small changes can you make in your daily life to help the environment?
 - c. How can you encourage others to recycle?
 2. **Call to Action:** Encourage students to participate in the school or community's recycling efforts, and remind them of the small but significant impact their actions can have.
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Extension Activities:

1. **Home Recycling Survey:** Assign students to conduct a survey at home, tracking what their family recycles for a week. Have them analyze and present their findings in class.



2. **Upcycling Challenge:** Challenge students to create something new from recyclable materials (e.g., art projects, useful household items) and present their creations.
 3. **Guest Speaker:** Invite a local waste management or environmental expert to speak about recycling in the community and how students can get involved.
 4. **Planet Aid America Recycles Clothing Drive:** Participate in Planet Aid's initiative to collect 500,000 pounds of reusable clothing and shoes from November 15th to December 2nd. All participating schools will be entered in a contest for a chance to win an exciting eco-centered Prize Package! Click here to learn more and sign up!
<https://www.planetaid.org/america-recycles-clothing-drive?hsCtaTracking=182888e1-a91c-41df-8c9d-25231a166b73%7Cc037089c-c003-4eb6-b87c-bbae20454a03>
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Suggested Books:

- **"Trash Vortex: How Plastic Pollution is Choking the World's Oceans"** by Danielle Smith-Llera – Explores the impact of waste and the importance of reducing plastic use and recycling.
 - **"One Plastic Bag: Isatou Ceesay and the Recycling Women of the Gambia"** by Miranda Paul – A real-life example of recycling's positive impact on communities.
 - **"Plastic: A Toxic Love Story"** by Susan Freinkel (for advanced readers) – Examines the history and environmental consequences of plastic.
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