

Waste Audit



Goal: Empower students to make changes towards waste reduction by familiarizing themselves with the waste they create, either on an individual level or as a classroom.

Time: 1 hour kick-off + 15 minutes per day for 1 week + 1 hour wrap-up

Background:

- Each day, the average person in San Diego County throws away 5 pounds of trash, a rate higher than both the state and the national average. Over one year, this adds up to 1,825 pounds of trash per person per year. After trash is disposed of in the trash can, it is transported to the local landfill for storage. The trash in the landfill does not break down and accumulates over time until the landfill reaches carrying capacity, necessitating the construction of a new landfill. Landfill placement can be very controversial based on their disruption of natural ecosystems or being positioned in undesirable locations, such as near homes and schools. As a result, minimizing our trash production is essential for protecting our environment and recycling and using reusable items are great ways to achieve this. Not only are these practices decreasing the amount of trash we are creating, but also reducing the amount of natural resources we need to take from the earth, as well as the amount of energy consumed to find and gather these resources.

Waste Categories

- **Compost:** organic material, including food waste and yard waste
- **Recycle**
 - **Paper:** any clean paper (white paper, lined paper, envelopes, cardboard, cartons)
 - Paper towels, napkins, and paper plates are NOT recyclable
 - **Glass:** any glass that is not broken (bottles, etc.)
 - Broken glass is placed in the trash
 - **Metal:** any metal that is not too rusted (cans, foil, etc.)
 - **Plastic:** any hard plastics (bottles, yogurt containers, etc.)
 - Plastic grocery bags, sandwich bags, and other soft plastics are NOT recyclable
- **Hazardous waste:** electronic waste (cell phones, batteries, etc.), chemicals (household cleaners, nail polish), tires
- **Landfill:** all other debris

Vocabulary

- **Audit:** to conduct an examination of something
- **Landfill:** a designated area where trash and other refuse is disposed of by being piled and buried under layers of soil
- **Household Hazardous Waste (HHW):** waste that poses a substantial threat to human and/or environmental health and safety; must be disposed of in a unique manner
- **Zero waste:** a philosophy that mimics natural cycles in eliminating waste by recapturing resources; closed-loop system

Pre-Audit Questions:

1. What items do you anticipate will be the most common? Why?
2. How many pieces of waste do you predict you will create during the audit?

Audit:

1. Analyze your daily waste over the course of a week. Keep a written or photo record of what type and how many pieces of waste are created each day. Categorize waste by type (landfill, recycling, compostable, HHW).

Day: Monday

Item	Type
Gum wrapper	Landfill
Plastic water bottle	Recyclable
Plastic water bottle	Recyclable
Apple core	Compost
Sticker from apple	Landfill

2. If collecting the waste over the course of the week, record but do not keep food waste or hygiene waste (tissues, Q-tips, etc.). Bring in waste collection on last day to sort and analyze during class.

Debrief Questions:

1. What did you learn from your waste audit?
2. Did anything surprise you?
3. What was the most common item you created? Why do you think this was the most common?
4. Identify 3 specific types of waste from your audit and brainstorm 1 action per item that could help reduce or eliminate that waste from your waste stream.

Zero Waste Extension Activity

1. Have each student select one item from Step 4 above to be their focus item and create a plan of how to reduce their creation of this piece of waste.
2. Implement the plan and track changes over the next few weeks.
3. At the end of the change period, create a final product to showcase results. Compare data from the control group (waste audit) to the weeks of change. Hold a classroom showcase or have each student present their project.
 - a. Projects can take on a variety of forms, including an infographic, poster, mockumentary, musical composition, poem, or written report.
4. Write a reflection about the experience.
 - a. What did you learn?

- What was the biggest challenge about making the change?
- Will you maintain this adaptation in the future? Why or why not?
- If you continued this practice for one year, what would the impact be?
- How else can you incorporate zero waste principles into your lifestyle?



Example final products from left to right: booklet discussing benefits of cloth napkin over paper napkins, display of reduced energy use, and poster displaying aluminum recycling process.

Further Application:

- Use the debris to create an art piece raising awareness about waste reduction.
- Graph the results – bar graph, pie chart, etc.
- Audit your classroom waste bin multiple times throughout the year. Compare the results and look for trends, patterns, and changes.
- Use the zero waste extension activity as a launch for a semester-long or year-long project. Identify one item or material most prevalent in the waste audit. Create a campaign to raise awareness of opportunities for campus-wide change.
 - Ex: Encourage reusable water bottle use on campus. The awareness campaign can include combination of classroom presentations, posters, “spirit week”, video for morning announcements, social media posts, environmental club selling reusable water bottles, etc.

For further ideas or questions, contact I Love A Clean San Diego’s education department at education@cleansd.org.