

# Case 13: Can the crew cut waste before it reaches the bin?

The last Common Room screening used about 120 cups the city won't recycle, and a box of parts arrived half full of packaging.

**On your own** Read What happened. Underline the number of cups and what the city list says about them. About 5 minutes.



Anika, Dec and Sami react to a round of their tabletop game.

**Your role:** You're the one who counts the cups before and after the change. **New skill:** Count a starting point before you claim a change works.

## What happened

It is Tuesday in the theater shop. Dec opens a box of replacement parts. Three separate orders of small LED connectors and switches, placed over one week, arrived together. About half of the box is plastic air pillows and foam.

The supply list from last Friday's screening at the Common Room shows a second problem. The crew used about 120 single-use cups. The cups are plastic-lined paper and labeled "recyclable." But the city's recycling list does not take plastic-lined paper cups.

Dec wants to fix how they order parts before anyone redoes the recycling sign. Anika tracks the parts and the budget. She agrees with Dec, but she wants numbers before anyone says a change saves money. Some people need a disposable cup or a straw, so any plan has to work for them too.

**Your question:** What could the crew change before the next screening, and how would they know it worked?

## Key terms

**On your own** Read each key term and its example. Then write your first guess in the box. About 5 minutes.

**Source reduction** Source reduction is preventing waste before it is created, for example by buying less packaging.

En español: reducción en la fuente

**In this case:** Dec wants to combine the parts orders so less packaging arrives in the first place.

**Reuse** Reuse is using an item again instead of throwing it away after one use.

En español: reutilización

**In this case:** Borrowing washable cups from the bookshop is reuse. Washing uses water and someone's time.

**Local acceptance** Local acceptance is the list of materials that your own city's recycling or compost program actually takes.

En español: materiales aceptados en tu ciudad

**In this case:** The cups say “recyclable,” but the crew's city does not accept plastic-lined paper cups.

## Who is involved



**Dec**

Opened the parts order

“Three orders of tiny connectors in one week. One big box, and half of it's packaging.”



**Anika**

Tracks the parts and the budget

“I'm in. But if anyone says it saves money, I want the numbers. Right now we have one box and a guess.”

Before you look at the evidence, what is the best way for the crew to cut waste?

---

---

---

---

---

## This image shows a single sheet of white paper with horizontal blue lines, resembling notebook paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

# Reading passage

## A claim as small as the evidence

**On your own** Read the passage. At each Stop and think box, pause and answer the question in your head or with a partner. About 5 minutes.

### Words to know

- **Source reduction:** Source reduction is preventing waste before it is created, for example by buying less packaging.
- **Reuse:** Reuse is using an item again instead of throwing it away after one use.
- **Local acceptance:** Local acceptance is the list of materials that your own city's recycling or compost program actually takes.
- **Proposal:** A proposal is a change that someone suggests and that has not been approved yet.
- **Trade-off:** A trade-off is a choice where getting one benefit means accepting a cost or giving something up.

## The story: Following waste upstream

Dec is a high school senior who drums, builds sets and is considering an electrical apprenticeship. He tends to follow a problem into the small places where it starts. On Tuesday, that place is the theater shop. Three orders of LED connectors and switches, placed separately over one week, have arrived together in one box. About half the box is plastic air pillows and foam.

Anika, a junior who tracks the crew's parts and budget, brings the second data point. The supply list from last Friday's screening at the Common Room shows about 120 single-use cups, plastic-lined paper and labeled "recyclable." The same list includes 80 paper plates, 150 printed flyers and 40 paper straws given out on request. The crew's first instinct might be a better recycling sign. Dec wants to start earlier, at the order form. Order parts together rather than each time one breaks, and ask the supplier about packaging.

Anika agrees and sets a standard. Nobody gets to say a change saves money without numbers, and right now the evidence is one box and a guess. She also sets a boundary. Some people need a disposable cup or a straw, so a plan that works only for most people does not work.

Your role is to count the cups before and after the change.

**❓ Stop and think.** Why is a claim about one counted screening more trustworthy than a claim about "saving money"?

## Hierarchy, labels and baselines

**Source reduction** is preventing waste before it is created, for example by buying less packaging. **Reuse** is using an item again instead of throwing it away after one use. Both sit upstream of the bin. Dec's combined orders are source reduction, and borrowing the bookshop's washable cups is reuse.

The cup label raises a verification problem that Case 9 prepared you for. There, you learned to check the official source for your own area rather than a general claim. Here, the official source is the city's recycling list. It accepts metal cans, glass bottles and jars, rigid plastic bottles and containers and flattened cardboard. It excludes plastic-lined paper cups, plastic bags and film, foam and items labeled compostable. **Local acceptance** is the list of materials that your own city's recycling or compost program actually takes. By that standard, the crew's "recyclable" cups are trash, and a switch to compostable cups would be too.

The new skill is counting a starting point before claiming a change works. The baseline is about 120 cups from one screening. The intervention is washable cups at the next one. The measurement includes cups used and left over, plus the costs reuse adds, water and someone's washing time. Case 4 supplies the frame for presenting the result. The plan is a **proposal**, a change that someone suggests and that has not been approved yet, and every option is a **trade-off**, a choice where getting one benefit means accepting a cost or giving something up. Anika's rule keeps the eventual claim honest. Whatever the crew reports should be as small as one counted screening.

 **Stop and think.** How does the Green Guides standard apply to the crew's cups?

## Evidence from agencies, reporters and schools

The EPA's materials management hierarchy ranks source reduction and reuse first, followed by recycling and composting, energy recovery, and treatment and disposal. It also notes that no single approach suits every material or situation (EPA, updated December 19, 2025). For food, the EPA's Wasted Food Scale likewise ranks prevention above composting or recycling (EPA, updated September 16, 2026). An NPR investigation reported that less than 10 percent of plastic has ever been recycled (NPR, September 11, 2020).

Labels are regulated for a reason. The FTC's Green Guides say a product or package "should not be marketed as recyclable unless it can be collected, separated, or otherwise recovered from the waste stream through an established recycling program" (16 CFR Part 260, 2012).

Access belongs in the same analysis. When Starbucks announced its straw phase-out in 2018, it said a sippable lid could mean a billion fewer straws a year (NPR, July 9, 2018). Two days later, NPR reported that some people with disabilities need flexible plastic straws and that advocates saw little awareness of the exemption in Seattle's ban (NPR, July 11, 2018). Schools offer models that measure first.

Evidence from agencies, reporters and schools, continued

New Jersey schools have used waste audits, share tables and reusable trays to cut waste before it reaches the bin (New Jersey School Boards Association, October 15, 2025). Each of those programs starts the way Anika does, by counting what is thrown away now.

 **Stop and think.** How does “add more bins” define the problem differently from “order less packaging”?

Sources

Real source

| U.S. Environmental Protection Agency (EPA) | December 19, 2025

Sustainable Materials Management: Non-Hazardous Materials and Waste Management Hierarchy

Real source

| U.S. Environmental Protection Agency | September 16, 2026

Wasted Food Scale

Real source

| NPR | September 11, 2020

How Big Oil Misled The Public Into Believing Plastic Would Be Recycled

Real source

| Federal Trade Commission (FTC) | 2012

FTC Green Guides (16 CFR Part 260)

Real source

| NPR | July 9, 2018

Starbucks To Eliminate Plastic Straws In Its Stores By 2020

Real source

| NPR | July 11, 2018

Why People With Disabilities Want Bans On Plastic Straws To Be More Flexible

Real source

| New Jersey School Boards Association | October 15, 2025

How New Jersey Schools Are Tackling Food Waste—One Tray at a Time

Notes

# Look at the evidence

**On your own** Read each document. For each one, fill in both boxes. About 8 minutes.

**Evidence A | Supply list**

**Screening supply list, last Friday**

Single-use cups (plastic-lined paper, labeled “recyclable”): about 120. Paper plates: 80. Printed flyers: 150. Paper straws, on request: 40. Folding chairs: borrowed from the bookshop.

**Look closely:** Which item did the crew use the most? Could it be reused?

**What it shows**

**What it leaves out**

**Evidence B | Delivery**

**The parts order**

Delivered Tuesday to the theater shop. Three separate orders of small LED connectors and switches, placed over one week, arrived together. They came in one full box, about half of it plastic air pillows and foam around tiny parts.

**Look closely:** How many orders came in this one box? Why does that matter?

**What it shows**

**What it leaves out**

# Look at the evidence, continued

Evidence C | Sanitation guide

## City recycling list

Accepted in recycling: metal cans, glass bottles and jars, rigid plastic bottles and containers, flattened cardboard. Not accepted: plastic-lined paper cups, plastic bags and film, foam, items labeled compostable.

**Look closely:** Find the plastic-lined paper cups. Which list are they on?

What it shows

What it leaves out

What is still missing from the evidence?

Notes



## Key idea: source reduction

**On your own** Read the key idea and the Professional standards card. Then answer the question in the box. About 10 minutes.

**Source reduction** is preventing waste before it is created, for example by buying less packaging. The Environmental Protection Agency (EPA) ranks ways to handle waste. Source reduction and reuse come first. Recycling and composting come next, then energy recovery, then treatment and disposal. The EPA also notes that no single approach fits every item or situation.

**Reuse** is using an item again instead of throwing it away after one use. Borrowing washable cups from the bookshop is one example. Reuse has costs too. Washing takes water and someone's time, so a fair comparison counts those costs along with the cups.

A “recyclable” label does not tell you where an item will go. **Local acceptance** is the list of materials that your own city's recycling or compost program actually takes. The crew's cups say “recyclable,” but their city's list does not take plastic-lined paper cups. The list does not take items labeled compostable either. So the crew has to check the list before choosing any new cup.

### Professional standards

**Real source** | Law or regulation | Federal Trade Commission (FTC)

#### **FTC Green Guides (16 CFR Part 260): § 260.12 Recyclable claims**

“A product or package should not be marketed as recyclable unless it can be collected, separated, or otherwise recovered from the waste stream through an established recycling program”

**In plain words:** FTC guidance says a company should call a product recyclable only when recycling programs can collect and process it.

**Question:** The crew's city rejects plastic-lined paper cups. What else must you know before saying the “recyclable” label breaks the guide?

### Your answer

I would need to know \_\_\_\_, because the guide \_\_\_\_.

---

---

---

---



A throwback to a company cutting waste at the counter, before anything reached a bin.



Investigation finding less than 10% of plastic has ever been recycled, which is why reduction comes first.

## This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal blue lines across its entire width. The lines are thin and consistent in color, set against a plain white background. There are no margins, text, or other markings on the page.

# Sort the evidence

**On your own** Follow each choice to its consequences in the diagram. Then name one view that is missing. About 8 minutes.

Follow each choice to its consequences, including new costs. Which consequence would you measure first, and what would count as success?

**Keep buying “recyclable” single-use cups**

About 120 cups go to the trash because the city does not accept them

**Who is affected**

**Borrow washable cups and run a wash station**

Fewer cups in the trash, if people use the washable ones

**Who is affected**

**Check:** Count cups and bags after the next event and compare with last time

**Combine parts orders into one shipment**

Less packaging arrives before anything reaches a bin

**Who is affected**

Notes

Whose view is missing from these documents? What would you ask them?

---

---

---

---

---

---

[illegible]

## Practice: choose a response

**On your own** Choose the plan the crew should try and explain why. Then fix the two marked lines.  
About 5 minutes.

The last screening used about 120 single-use cups, and the city’s recycling list does not take that type. Which plan should the crew try for the next screening?

☐ **A** Compare a washable-cup option, washing time, cost, access and the city list, then test one change.

☐ **B** Buy a different cup labeled “recyclable” and put up a clearer recycling sign.

☐ **C** Stop offering disposable cups and straws, and ask everyone to bring their own.

Why I chose it

## Improve a draft

### A student’s first draft

We should make the screening zero waste. Everyone should bring their own cup and we’ll **1** ban all plastic. We can also put up posters that say “save the planet” so people remember to recycle. Recycling is the best thing you can do for the environment. This will be easy and **2** it will save money too. Last screening there were cups everywhere and the bins were overflowing by the end of the night. People will love it once they get used to it. Let’s start next week!

Rewrite each marked phrase so it says only what the evidence supports.

Rewrite phrase 1

Rewrite phrase 2

Grades 11—12

# Your task

**On your own** Read the steps. Fill in the planner boxes before you start your draft. About 25 minutes.

Investigate a real school event’s waste with a defined boundary and recommend changes to student government.

**Use:** EPA hierarchy, your city’s recycling guide and your own data.

**You’ll make:** Report, 500—600 words with a data table

**Time:** 90 minutes

- 1 Choose one school event. List the items it uses and how you will count them.
- 2 Write your boundary: what your comparison counts and what it leaves out.
- 3 Count the items safely. Do not sort through trash with your hands.
- 4 Check each item against your city’s recycling guide.
- 5 Draft your findings and limits on the Your draft page.
- 6 Write the full report of 500 to 600 words, with a data table, for student government.
- 7 State clearly what your comparison does not measure.



Prefer typing? Scan to open the online workspace.

The event and its items

Your task, continued

What my comparison counts

What it leaves out

Data table: item, count, accepted by the city?

Notes

**On your own** Write your draft in the boxes. Use your planner from the page before. About 30 minutes.

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has rounded corners and a thin black border around the edges.

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has rounded corners and a thin black border around the edges.



## Check your work

**On your own** Answer the Check your work questions and mark your level in each rubric row. Then write one change you made. About 8 minutes.

|                                                                  |                                                          |
|------------------------------------------------------------------|----------------------------------------------------------|
| Does your report state a clear boundary?                         | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Is your data accurate and labeled with units?                    | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Do you use the EPA hierarchy as a general framework, not a rule? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Do you state honestly what your comparison does not measure?     | <input type="checkbox"/> Yes <input type="checkbox"/> No |

### How your work is scored

Mark one box in each row.

| Skill                         | Beginning                                                      | Developing                                               | Proficient                                                            | Advanced                                                                                          |
|-------------------------------|----------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Evidence</b>               | <input type="checkbox"/> No data.                              | <input type="checkbox"/> General claims about recycling. | <input type="checkbox"/> Uses quantities and local rules.             | <input type="checkbox"/> Uses quantities, local rules and a before/after plan.                    |
| <b>Reasoning</b>              | <input type="checkbox"/> Treats one fix as solving everything. | <input type="checkbox"/> Ignores trade-offs.             | <input type="checkbox"/> Applies the hierarchy and names a trade-off. | <input type="checkbox"/> Weighs trade-offs including access and cost with a measurement boundary. |
| <b>Audience &amp; purpose</b> | <input type="checkbox"/> Commands people.                      | <input type="checkbox"/> Relies on slogans.              | <input type="checkbox"/> Specific change organizers can do.           | <input type="checkbox"/> Specific, inclusive change with roles assigned.                          |
| <b>Revision</b>               | <input type="checkbox"/> No change.                            | <input type="checkbox"/> Wording only.                   | <input type="checkbox"/> Narrows to a measurable change.              | <input type="checkbox"/> Explains how narrowing makes success testable.                           |

## One change I made after feedback

---

---

---

---

## This image shows a single page of white paper with horizontal blue lines, resembling notebook paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## Questions to discuss

**On your own** Write a short answer to each question. Then complete each sentence frame below the questions. About 8 minutes.

- 1** Could a change that reduces waste create an access problem for someone, and how would you find out?

---

---

---

---

- 2** How does “add more bins” define the problem differently from “order less packaging”?

---

---

---

---

- 3** What would the crew need to count before saying a change saves money?

---

---

---

---

## My take

My claim: \_\_\_\_.

---

---

---

The best evidence is \_\_\_\_, because \_\_\_\_.

---

---

---

Someone who disagrees might say \_\_\_\_.

---

---

---

---

---

---

---

---

---

---

## This image shows a single page from a notebook or ledger. The page is white with horizontal blue lines spaced evenly apart. There are no vertical margin lines, and the page is completely blank except for the ruling. The lines extend across the width of the page, leaving small gaps between them. The overall appearance is that of a clean, unused sheet of stationery.

## Talk about this case at home

### Case 13: Can the crew cut waste before it reaches the bin?

In this case, a group of friends learns that the cups from their movie night can't be recycled in their city. Your student planned one change to cut waste before the next event and a way to count whether it worked.

#### Questions to talk about

- 1 How could someone find out what their city or town recycles?
- 2 What is one item people often throw away after a party or event?
- 3 Why might a rule to cut waste need an exception for some people?

Nobody needs to share personal stories or private information to talk about this case.



See the case online.