

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

Measuring waste reduction without overclaiming

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: Two data points and a guess

A box of replacement parts arrives at the theater shop half full of air pillows and foam. Three small orders placed over one week have shipped together. Separately, the supply list from the crew's last screening shows about 120 single-use cups, plastic-lined and labeled "recyclable," plus 80 paper plates, 150 flyers and 40 paper straws given out on request.

Dec, 17, a theater tech weighing an electrical apprenticeship, traces the waste upstream to purchasing decisions. Combine orders, and ask the supplier about packaging. Anika, 16, who tracks parts and budget, accepts the diagnosis but refuses to let it become a claim. Nobody should say a change saves money on the basis of one box and a guess. She also insists that any plan preserve disposable cups and straws for people who need them.

The case turns an environmental question into a method question. What would it take to know that a change worked, and how large a claim would that evidence support?

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

❓ Stop and think. What is the largest claim the crew could honestly make after one test screening?

Designing a small, honest test

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 address waste upstream of disposal, which is where Dec wants to intervene.

The cups expose the gap between a label and a system. The city's list accepts metal cans, glass, rigid plastic containers and flattened cardboard. It excludes plastic-lined paper cups, plastic film, foam and items labeled compostable. **Local acceptance** is the list of materials that your own city's recycling or compost program actually takes. Case 9's skill, consulting the official source for your own jurisdiction, applies directly. A package's claim is not the city's rule. Anika's observation that compostable cups are also excluded prevents a substitution that would only look like progress.

The new skill is establishing a baseline before claiming an effect. The baseline is roughly 120 cups at one screening. The intervention is borrowed washable cups at the next. The measure includes cups used and unused, plus the resources reuse consumes, water and labor. Case 4 provides the terms for presenting it. The plan is a **proposal**, a change that someone suggests and that has not been approved yet, and it is a **trade-off**, a choice where getting one benefit means accepting a cost or giving something up. The resulting claim should be scoped to one counted screening. That is modest by design, because a single comparison cannot establish a trend or a cost saving.

❓ **Stop and think.** How should an organization weigh environmental goals against access needs when they conflict?

Hierarchies, labels and the limits of bans

The EPA's hierarchy places source reduction and reuse above recycling and composting, which rank above energy recovery and disposal. It explicitly notes that no single approach suits every material or situation (EPA, updated December 19, 2025). An NPR investigation reported that less than 10 percent of plastic has ever been recycled, which helps explain why reduction ranks first (NPR, September 11, 2020). FRONTLINE and NPR's documentary examined why recycling alone has not solved plastic waste (FRONTLINE PBS, March 31, 2020).

Environmental marketing is regulated. The FTC's Green Guides state that 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). The crew's cups, marketed as recyclable in a city that does not accept them, illustrate the problem the rule addresses.

The 2018 straw debate shows why access must be designed in. Starbucks projected that its lid could mean a billion fewer straws a year (NPR, July 9, 2018).

Hierarchies, labels and the limits of bans, continued

Disability advocates responded that some people need flexible plastic straws and that awareness of Seattle's exemption appeared low (NPR, July 11, 2018). Public institutions are adopting measurement. New York City's comptroller audited schools' food donation and composting efforts, showing how measurement changes what counts as success (Office of the New York City Comptroller, April 21, 2026). California schools use share tables so unopened food is shared instead of thrown away (California School Boards Association, October 13, 2023). Researchers have also studied which school and meal choices lead to more plate waste in K-12 cafeterias (Adjapong et al., PLOS ONE, December 27, 2024).

Professional ethics supports Anika's caution. The IABC code states, "I do not guarantee results that are beyond my power to deliver" (IABC Code of Ethics, no date listed).

? **Stop and think.** Why might a city's acceptance list matter more than a federal label standard for the crew's decision?

Sources

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

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

Real source | NPR | September 11, 2020

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

Real source | FRONTLINE PBS (YouTube) | March 31, 2020

Plastic Wars (full documentary) | FRONTLINE

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 | Office of the New York City Comptroller | April 21, 2026

Review of Schools' Food Donation and Composting Efforts (MH25-077S)

Real source | California School Boards Association | October 13, 2023

Share tables reduce food waste

Real source | PLOS ONE (Adjapong et al.) | December 27, 2024

School and meal characteristics associated with plate waste in K-12 cafeterias in the United States

Real source | International Association of Business Communicators (IABC) | No date listed

IABC Code of Ethics for Professional Communicators

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 is no handwriting or other markings on the paper.

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

Before saying the label breaks the guide, I would need to know ____.

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 horizontal blue lines spaced evenly across the page, typical of notebook paper. The lines are thin and light blue, set against a plain white background. There is no handwriting 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 6 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

New costs: water, washing time and volunteers

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?

This image shows a single page from a notebook or ledger. The page is white with light blue horizontal ruling lines spaced evenly apart. There are no vertical margin lines, and the page is completely blank except for the lines.

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

College

Your task

On your own Read the steps. Fill in the planner boxes before you start your draft. About 12 minutes.

Write a memo to a student government events committee proposing one purchasing change for campus or club events. Use the Common Room supply list as the model, and include a measurement plan that states its boundary.

Use: Case documents: the screening supply list, the parts order, the city’s accepted-materials list and Dec’s and Anika’s statements. Real sources: EPA’s waste management hierarchy, the FTC Green Guides section on recyclable claims and NPR’s report on disability and straw bans (July 11, 2018).

You’ll make: Memo, 300—400 words, with a materials table

Time: 75 minutes

- 1

Fill in the materials sheet from Evidence A: item, number used, reduction option, disposal rule, trade-off.
- 2

Choose one purchasing change high on the EPA hierarchy.
- 3

Write your boundary: what your comparison counts and what it leaves out.
- 4

Draft your memo of 300 to 400 words. Start on the Your draft page.
- 5

Add a line that keeps disposable items available for people who need them.
- 6

Check your memo with the questions on the Check your work page.



Prefer typing? Scan to open the online workspace.

Materials table, using the screening as a model

My purchasing change

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 is no handwriting or other markings on the paper.

Your draft

On your own Write your draft in the boxes. Use your planner from the page before. About 25 minutes.

Your memo, first part, about 150 words

To: Events committee.

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 6 minutes.

Do your counts match the supply list?	☐ Yes ☐ No
Does your change sit high on the EPA hierarchy, not only better sorting?	☐ Yes ☐ No
Do you state your boundary before any claim of savings?	☐ Yes ☐ No
Do you keep an option for people who need disposable items?	☐ Yes ☐ No

How your work is scored

Mark one box in each row.

Skill	Beginning	Developing	Proficient	Advanced
Evidence	☐ No data.	☐ General claims about recycling.	☐ Uses quantities and local rules.	☐ Uses quantities, local rules and a before/after plan.
Reasoning	☐ Treats one fix as solving everything.	☐ Ignores trade-offs.	☐ Applies the hierarchy and names a trade-off.	☐ Weighs trade-offs including access and cost with a measurement boundary.
Audience & purpose	☐ Commands people.	☐ Relies on slogans.	☐ Specific change organizers can do.	☐ Specific, inclusive change with roles assigned.
Revision	☐ No change.	☐ Wording only.	☐ Narrows to a measurable change.	☐ 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 is no handwriting 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: ____.

My take, continued

The best evidence is ____, because ____.

Someone who disagrees might say ____.

The limit of the evidence is ____.

I would change my mind if ____.

Notes

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.