

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

Overview

Students read a story in which Dec’s box of replacement parts arrives half full of packaging. The crew’s “recyclable” cups turn out to be on the city’s not-accepted list. They place items from the supply list on EPA’s waste hierarchy and check them against the city’s accepted-materials list. They then fill in an event materials sheet and propose one change with a way to measure it.

Before this case

Students should already be able to:

- read numbers in a list
- sort items into groups
- write complete sentences that give a reason

Objectives

Students will be able to:

- list items and quantities from the screening supply list
- place items on the waste hierarchy: reduce, reuse, recycle or throw away
- choose one change and a way to count whether it worked
- name one problem the change could cause

Materials

- This chapter, one copy per student
- Evidence A, B and C, one set per group

Materials, continued

- A picture hierarchy and a sheet template with the first row filled in

The task in this edition

Task: Make a materials sheet for the next Common Room screening and pick one change to try.

Students make: Materials sheet plus 3—4 sentences

Pacing

Opener (page 213): 5 min. Short on time: 5 min.

Key terms (pages 214 and 215): 5 min. Short on time: 3 min. Read the key terms aloud. Skip Who is involved.

Look at the evidence (page 218): 10 min. Short on time: 10 min.

Look at the evidence (page 219): 5 min. Short on time: 5 min.

Key idea (pages 220 and 221): 6 min. Short on time: 2 min. Read the first paragraph of the key idea aloud. Skip the rest.

Sort the evidence (pages 222 and 223): 8 min. Short on time: skip.

Practice (page 224): 6 min. Short on time: skip.

Your task (pages 225 and 226): 15 min. Short on time: 15 min.

Pacing, continued

Check your work (pages 227 and 228): 5 min. Short on time: skip. Check the sheets yourself.

Questions to discuss (pages 229 and 230): 8 min. Short on time: 5 min. Use question 1 as an exit ticket.

Talk about this case at home (page 231): at home.

Periods: full chapter 73 minutes; one period 45 minutes.

Standards

RI.6.1 Use evidence from the text to support what it says directly and what you can infer from it.

W.6.1 Write an argument for a claim, backed by clear reasons and relevant evidence.

W.6.5 With help from peers and adults, strengthen writing by planning, revising, editing or rewriting.

SL.6.1.c Ask and answer specific questions with details that add to the discussion.

SL.6.1.d Review the main ideas of a discussion and show you understand other views by reflecting and paraphrasing.

RI.7.1 Use several pieces of evidence from the text to support what it says directly and what you can infer.

Case 13 plan, continued

Standards, continued

W.7.1 Write an argument for a claim, backed by clear reasons and relevant evidence.

W.7.5 With help from peers and adults, strengthen writing by planning and revising, focusing on purpose and audience.

SL.7.1.c Ask questions that draw out more detail, and respond with relevant ideas that bring the discussion back on topic.

SL.7.1.d Take in new information from others and change your view when the evidence calls for it.

RI.8.1 Use the evidence that most strongly supports your analysis of what a text says and implies.

W.8.1 Write an argument for a claim, backed by clear reasons and relevant evidence.

W.8.5 With help from peers and adults, strengthen writing by planning and revising, focusing on purpose and audience.

SL.8.1.c Ask questions that connect several speakers' ideas, and respond with relevant evidence and observations.

SL.8.1.d Take in new information from others and qualify or defend your view based on the evidence.

Standards, continued

D2.Civ.13.6-8 Analyze the purposes, carrying out and effects of public policies in different settings. In this case: Students analyze the purposes and consequences of local waste policies.

D4.7.6-8 Assess what you and others can do about local, regional and global problems, considering strategies and likely outcomes. In this case: Students assess their capacity to act through a measurable event change.

Codes of ethics

- **FTC Green Guides (16 CFR Part 260):** § 260.12 Recyclable claims
- **AIGA Standards of Professional Practice:** The designer's responsibility to society and the environment
- **IABC Code of Ethics for Professional Communicators:** "I do not guarantee results"

Heat map

- **Opener (page 213):** Low
- **Key terms (pages 214 and 215):** Low
- **Look at the evidence (page 218):** Low
- **Look at the evidence (page 219):** Low
- **Key idea (pages 220 and 221):** Medium
- **Sort the evidence (pages 222 and 223):** Low

Heat map, continued

- **Practice (page 224):** Medium
- **Your task (pages 225 and 226):** Low
- **Check your work (pages 227 and 228):** Low

Try it at your school

Change one thing before the next event.

- Pick one repeated item at a school event: cups, flyers, plates
- Count how many were used last time
- Check your city's recycling list and propose one reduction or reuse option
- Count again after the event and share results with the organizers

Who to ask: Student council, custodial or facilities staff, a science teacher, your city's sanitation or recycling office

Safety: Don't sort through trash with your hands; unsafe items can be hidden. Make sure changes don't leave out people who need disposable items.

Sources

- NPR, "Starbucks To Eliminate Plastic Straws In Its Stores By 2020," July 9, 2018
- NPR, "Why People With Disabilities Want Bans On Plastic Straws To Be More Flexible," July 11, 2018

Case 13 plan, continued

Sources, continued

- U.S. Environmental Protection Agency (EPA),
“Sustainable Materials Management:
Non-Hazardous Materials and Waste
Management Hierarchy,” No date listed

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.

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

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.

⌚ Pacing

Full chapter: 5 min.

✂ Short on time: 5 min.

💬 Say this

"The cups say 'recyclable.' Where do you think they went after the screening?" — Hear guesses. Do not reveal the city list yet.

👁 Watch for

Misconception: Students think the label decides where the cups go. **Listen for:** "They said recyclable, so they got recycled." **Then:** Ask who decides what a city recycles. Promise to check the city list in the evidence.

📖 Support

- Read What happened aloud. Show a paper cup if you have one.

🌡 Heat check

■□□ Low.

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."

Pacing

Full chapter: 5 min.

 Short on time: 3 min. Read the key terms aloud. Skip Who is involved.

Say this

"Source reduction happens before the waste exists. Which item in the story could the crew stop buying?" — Listen for the packaging and the cups.

Watch for

Misconception: Students treat reuse and recycling as the same. **Listen for:** "Reusing is recycling." **Then:** Reuse means using the same item again, like a washable cup. Recycling depends on what the city list accepts.

Support

- Use picture cards: a washable cup, a paper cup and a recycling bin.
- **Cognates:** reduction (reducción), recycle (reciclar), plastic (plástico), material (material), accessible (accesible), alternative (alternativa), container (contenedor), quantity (cantidad).

Heat check

 Low.

Answer key

Any first guess is fine. Students return to it on the My take page.

Your first guess

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

I think the crew should ___ because ___.

➤ I think the crew should put out more recycling bins because the cups say “recyclable.”

Notes

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.

This page continues page 214. The notes for both pages are on the sheet for page 214.

Reading passage

Half a box of air

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 4 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: Air pillows and 120 cups

It is Tuesday in the theater shop. Dec opens a box of replacement parts. Three small orders of LED connectors and switches came together in one big box. About half of the box is plastic air pillows and foam. “Three tiny orders,” Dec says. “One giant box.”

There is a second problem. The supply list from last Friday's screening at the Common Room shows the crew used about 120 single-use cups. The cups say “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 role is to count the cups before and after the change.

Stop and think. Why does Dec want to fix the order form before the recycling sign?

Stopping waste before the bin

Source reduction is preventing waste before it is created, for example by buying less packaging. Dec's idea is source reduction: order the parts together, not every time one breaks, and ask the supplier about packaging.

Pacing

Reading: about 4 min (419 words). Short on time: read it aloud together, pausing at each Stop and think.

Stop and think

1. **After “The story: Air pillows and 120 cups”:** Why does Dec want to fix the order form before the recycling sign?
2. **After “Stopping waste before the bin”:** Why is the word “recyclable” on the cups not enough?
3. **After “Real companies, real straws”:** What would the crew need to count to know if washable cups worked?

Stopping waste before the bin, continued

Reuse is using an item again instead of throwing it away after one use. The bookshop has washable cups the crew could borrow. But reuse has costs too. Washing takes water and someone's time.

A “recyclable” label does not tell you where a cup will go. **Local acceptance** is the list of materials that your own city's recycling or compost program actually takes. In Case 9, you learned to check an official source for your own area. Here, that source is the city's list. It does not take plastic-lined cups, and it does not take items labeled compostable either.

Anika's plan is a test. At one screening, the crew borrows washable cups. They count what they use and compare it with 120. Water and washing time go on the sheet too. That makes it a fair **proposal**, a word from Case 4. A proposal is a change that someone suggests and that has not been approved yet. It is also a **trade-off**: fewer cups in the trash, but more washing. The crew will keep some disposable cups and straws for people who ask.

? **Stop and think.** Why is the word “recyclable” on the cups not enough?

Real companies, real straws

In 2018, Starbucks said it would phase out plastic straws in its stores by 2020 (NPR, July 9, 2018). Two days later, NPR reported that some people with disabilities need flexible plastic straws to drink (NPR, July 11, 2018). Cutting waste works best when it still works for everyone.

? **Stop and think.** What would the crew need to count to know if washable cups worked?

Sources

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

This page continues page 216. The notes for both pages are on the sheet for page 216.

Look at the evidence

On your own Read each document. For each one, fill in both boxes. About 10 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

➤ The screening used about 120 cups, 80 plates, 150 flyers and 40 straws.

One question I still have

➤ Where did the cups go after the screening?

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

➤ Three small orders came in one big box. About half of it was packaging.

One question I still have

➤ Would one order come with less packaging?

⌚ Pacing

Full chapter: 10 min.

✂ Short on time: 10 min.

💬 Say this

“Put the supply list next to the city list. Which item appears on both?” — Wait for the plastic-lined paper cups.

👁 Watch for

Misconception: Students say the cup label is a lie. **Listen for:** “The label is fake.” **Then:** Ask what the city list tells us: this city does not accept them. Other places are not in the evidence.

📚 Support

- Give each document on its own half-page.
- Read the city list aloud, pausing after “Not accepted.”
- **Cognates:** reduction (reducción), recycle (reciclar), plastic (plástico), material (material), accessible (accesible), alternative (alternativa), container (contenedor), quantity (cantidad).

🔗 Stretch

- Ask which document shows waste made before the event and which shows what happens after it.

🔥 Heat check

■□□ Low.

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

👉 The city does not recycle plastic-lined paper cups, foam or compostable items.

One question I still have

👉 Where do the items the city won't accept go?

What is still missing from the evidence?

👉 We don't know how many washable cups the crew could borrow, how much time washing would need, or where the trash goes.

Notes

🕒 Pacing

Full chapter: 5 min.

✂ Short on time: 5 min.

💬 Say this

“Put the supply list next to the city list. Which item appears on both?” — Wait for the plastic-lined paper cups.

👁 Watch for

Misconception: Students say the cup label is a lie. **Listen for:** “The label is fake.” **Then:** Ask what the city list tells us: this city does not accept them. Other places are not in the evidence.

📄 Support

- Give each document on its own half-page.
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🔗 Stretch

- Ask which document shows waste made before the event and which shows what happens after it.

🔥 Heat check

■□□ Low.

Key idea: source reduction

On your own Read the key idea and the Professional standards card. Then answer the question in the box. About 6 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 ____.

 I would need to know if recycling programs in other places accept these cups. One city is not everywhere.

Pacing

Full chapter: 6 min.

 Short on time: 2 min. Read the first paragraph of the key idea aloud. Skip the rest.

Say this

“The EPA ranks source reduction and reuse first. Where on that list is Dec trying to act?” — Wait for “source reduction.”

“This card is FTC guidance, not an ethics code. Who does it apply to?” — Marketers who call a product recyclable.

Watch for

Misconception: Students treat the EPA ranking as a rule for every item. **Listen for:** “Reuse is always better.” **Then:** Reread the key idea: no single approach fits every item. Washing has costs too.

Support

- Draw the ranking as a staircase, with source reduction and reuse on the top step.

Stretch

- Use the AIGA card: what could the next parts order change before anything reaches the shop?

Heat check

 **Medium.** The straw story raises disability access, and students may describe their own needs or others'.

Cool-down: Keep the talk to the NPR report. No one needs to say what they or anyone they know needs.

Real source | NPR | July 9, 2018

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

Real source | NPR | September 11, 2020

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

[illegible]

This page continues page 220. The notes for both pages are on the sheet for page 220.

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

→ The city collection
service and the
neighborhoods near
where waste ends up

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

Pacing

Full chapter: 8 min.

✂ Short on time: skip this page.

Say this

“Follow the washable-cup choice. What new costs appear?” — Model the first chain together.

Watch for

Misconception: Students list only benefits for the washable cups. **Listen for:** “Washable cups are just better.” **Then:** Point to the new-costs box: water, washing time and volunteers.

Support

- Let students draw arrows before writing labels.

Heat check

■□□ Low.

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

The view that is missing is _____. I would ask _____.

☛ The view of people who need a straw is missing. I would ask them what cup or straw works for them.

Notes

[illegible]

This page continues page 222. The notes for both pages are on the sheet for page 222.

Practice: choose a response

On your own Choose the plan the crew should try and explain why. Then fix the two marked lines.
About 6 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

➤ **A. It compares the options before choosing. It also makes sure the plan works for people who need a disposable cup.**

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

➤ **We will keep some cups and straws for people who need them.**

Rewrite phrase 2

➤ **We will count the cups to see if it saves money.**

⌚ Pacing

Full chapter: 6 min.

✂ Short on time: skip this page.

💬 Say this

"You are planning the next screening. Which plan would you try first?" — Vote before any discussion.

👁 Watch for

Misconception: Students choose C because a ban cuts the most waste. **Listen for:** "Just ban them all." **Then:** Ask who at the screening might need a disposable cup or a straw. Point to the straw story.

📖 Support

- Read the three options aloud before students choose.

🔥 Heat check

■ ■ □ **Medium.** Talk about bans can turn to who "really" needs a straw.

Cool-down: Say: "Nobody has to prove a need." Keep the focus on how the plan offers items on request.

➤ Answer key

A revised version: For the next screening, we propose one change: cups. Last time we used about 120 single-use cups, and our city's recycling list doesn't accept that type. We'll borrow 60 washable cups from the bookshop, keep 40 compostable cups for anyone who needs one, and ask Rafa and Jordy to run a quick wash station. Flexible straws and single-use cups stay available on request. We'll count cups used and leftover supplies after the event and compare with last time before deciding whether to keep the change. We're not claiming it saves money yet.

Grades 6—8**Your task**

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

Make a materials sheet for the next Common Room screening and pick one change to try.

Use: The EPA hierarchy graphic and the supply list.

You'll make: Materials sheet plus 3—4 sentences

Time: 45 minutes

- 1 Count the items on the supply list in Evidence A. Write the number for each.
- 2 Place each item on the hierarchy: reduce, reuse, recycle or throw away.
- 3 Check the city list in Evidence C. Does it accept the cups?
- 4 Pick one change for the next screening.
- 5 Write 3 or 4 sentences in the Your draft box. Say how you would count whether it worked.

Show it your way

Write it: Write 3—4 sentences with the frame “We use __. We could __. A problem might be __.”

Say it: Explain to your group which item you would change, what you would do instead and one problem your change might cause.

Show it: Draw the waste hierarchy as a staircase and place each item from the supply list on the step where it is now and the step it could move to.



Prefer typing? Scan to open the online workspace.

Case 13 | Your task | Grades 6—8 educator edition**⌚ Pacing**

Full chapter: 15 min.

✂ Short on time: 15 min.

💬 Say this

“Pick the item you would change first. Why that one?” — Listen for the cups.

📄 Support

- Picture hierarchy
- Sheet template with the first row filled in
- Frames: “We use __. We could __. A problem might be __.”
- Group work
- Let groups share one sheet.

🔗 Stretch

- Explain how you'll know if the change worked.

🌡 Heat check

■□□ Low.

📋 Standards

Common Core, grade 6: RI.6.1; W.6.1; W.6.5; SL.6.1.c; SL.6.1.d.

Common Core, grade 7: RI.7.1; W.7.1; W.7.5; SL.7.1.c; SL.7.1.d.

Common Core, grade 8: RI.8.1; W.8.1; W.8.5; SL.8.1.c; SL.8.1.d.

C3 Framework: D2.Civ.13.6–8; D4.7.6–8.

The Case plan sheet gives each code in plain words.

Your task, continued

Item I will change, and how many were used

☞ Cups: about 120.

Where it is on the hierarchy now

☞ Throw away. The city won't recycle them.

My change

☞ Borrow washable cups from the bookshop.

Your draft

Your sentences

We use _____. We could _____. A problem might be _____.

☞ We use about 120 single-use cups at a screening. We could borrow washable cups from the bookshop. A problem might be that someone needs a disposable cup, so we would keep some. We would count the cups after the next screening and compare with 120.

Notes

This page continues page 225.

☞ Answer key

A strong response:

- Lists items and quantities
- Picks a reduction or reuse option
- Names a trade-off
- Includes a way to measure

What to notice in the sample:

1. Starts with a count from the supply list.
2. Names a problem and a fix.
3. Gives a way to measure the change.

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 5 minutes.

Does your sheet list the items and how many were used?	☒ Yes	☐ No
Did you pick a reduce or reuse change?	☒ Yes	☐ No
Did you name a problem the change could cause?	☒ Yes	☐ No
Did you say how you would count whether it worked?	☒ 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.

Pacing

Full chapter: 5 min.

 Short on time: skip this page. Skip this page. Check the sheets yourself.

Say this

“Find the sentence that says what you will count. Is there a number in it?” — If not, that is the revision.

Watch for

Misconception: Proposals still promise savings. **Listen for:** “It will definitely save money.” **Then:** Ask what the crew has counted so far. Replace the promise with the count.

Heat check

   Low.

Answer key

How to assess: The educator checks the sheet for quantities, a reduction or reuse option, a named trade-off and a way to measure.

Proficient looks like:

- **Evidence:** Uses quantities and local rules.
- **Reasoning:** Applies the hierarchy and names a trade-off.
- **Audience & purpose:** Specific change organizers can do.
- **Revision:** Narrows to a measurable change.

[illegible]

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?

➤ Yes. Someone who needs a straw or a disposable cup could be left out. You could ask people what they need.

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

➤ The phrase “add more bins” means the problem is sorting. The phrase “order less packaging” means the problem starts when you buy.

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

➤ They would count how many cups they use and how much washing costs.

My take

I think the crew should ___ because ____.

➤ I think the crew should borrow washable cups because the city won't recycle the old ones.

The evidence that changed my first guess is ____.

➤ The city list changed my first guess. It does not accept the cups that say “recyclable.”

⌚ Pacing

Full chapter: 8 min.

✂ Short on time: 5 min. Use question 1 as an exit ticket.

💬 Say this

“Use a number or a document in every answer.” — Hear one answer per question, then ask for a different view.

🔗 Stretch

- Design the count sheet for the next screening: items, numbers before and after, and new costs.
- Going further: Compare two plans for the theater shop: order all the parts at once, or keep ordering when a part breaks. What problem does each plan solve? What new problem could each one create?
- Going further: List who would have to change a routine if the crew switched to washable cups. Write a two-sentence note to them. Say what the crew will count to show whether the change worked.
- Going further: Write two event plans for the next screening and a small test for each. After the tests, explain which plan you would improve and which you would drop.
- Going further: Pick one item that appears at many school events, such as cups, flyers or plates. Count how many were used last time, and check your city's recycling list. Do not sort through trash with your hands.
- Find your city's recycling rules and compare with a neighboring city
- Research where your area's trash goes after pickup

My take, continued

One question I still have is ___.

➤ One question I still have is who will wash the cups.

Notes

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 is no handwriting or other markings on the paper.

This page continues page 229.

Heat check

Question 1: Medium. Students may describe their own disabilities or those of people they know.

Cool-down: Keep the talk to the case and the straw story. No one needs to say what they or anyone they know needs.

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.

Case 13 | Talk about this case at home

| Grades 6—8 educator edition

Pacing

At home: this page takes no class time.

Say this

“Bring this page home or read it with someone you trust.” — Nobody needs to share personal needs or health information.