TEACHER STORY GUIDE

Give Plastic a Second Job

Inspired by Adeola Olufunke Akinsulure's environmental work at Omole Senior Grammar School in Lagos,...

Before you begin: consult the appropriate school or district department, secure required approvals, follow school policy, and offer clean, dry materials with smooth edges. Choose designs that need no heating, melting, or sharp tools.

Learning goals

- Choose a second use for a material and explain which of its properties suits the job.
- Agree on a test with the intended user, try the design, and use the result to decide what to keep or change.

Context

Adeola helped establish the Environmental Bees Club and led projects that gave discarded plastic a second use. In a Lagos recycling competition, an Omole learner earned second place for her own idea: a shopping basket made from plastic.

Suggested adaptations (editorial, not the educator's own process)

- Suggested classroom activity: invite someone to name a small everyday need. Let learners choose what to make from available materials and how to tell whether it works.

Resources

- Clean, reusable plastic (required): Offer intact tubs, lids, or other smooth pieces in different shapes.
- Objects for a trial (required): Use items from the intended task, such as loose counters that need carrying.
- Reusable fasteners (optional): Offer clips or hook-and-loop strips if a design needs a join.

Preparation

- Ask a colleague or classmate for one genuine need. Set out materials and check that learners can handle or direct their use.

Time and cost (estimates)

- Estimate: 35 to 45 minutes for one build, a user trial, and a revision.
- Estimate: $0 using recovered materials and supplies already on hand.

Implementation steps

1. Ask the user, "What do you need this object to do?" Agree on an observable test. For example, can it carry ten counters between two tables in one trip without spilling?
2. Compare two materials. Bend, stack, or fit them together. Choose one and explain which property matters for the job.
3. Build a first version. Invite the user to try it under the agreed conditions. Observe what happens before suggesting a fix.
4. Change one feature or explain why the design can stay as it is. Repeat the same test and report the result to the user.

Accessibility supports

- Offer large pieces, easy-grip fasteners, and a stable work surface. Learners can assemble, direct a partner, or run the trial.
- Accept a demonstration, sketch, spoken explanation, or communication-device response as evidence of design thinking.

Low-tech alternatives

- Run the activity entirely with physical objects. Put a tally mark on scrap paper for each item delivered or spilled.

Assessment

- Look for three pieces of evidence: the user's need, a material choice linked to that need, and a design decision supported by the trial.

Reflection

- What did the user's trial reveal that you could not tell by looking at your design?

Variations

- For a shorter session, compare two intact containers for the same job. Test both and recommend one to the user.

Optional reference: advanced requirements

- For an extension, weigh the recovered plastic in the finished object. Record that mass separately from any estimate of waste avoided over time.

Credits

- Adeola and the Omole learners are credited for their environmental work. Karis and Eleos Foundation documented the basket entry. Champions of Learning designed this classroom trial.

Links

- Global Teacher Prize | Adeola Olufunke Akinsulure
- Karis and Eleos Foundation | Raising Recycling Heroes

Optional AI planning prompts

Copy, fill in the bracketed parts, and always review the output yourself.

AI is optional. These prompts help you plan; they do not describe how the featured educator worked. Review every output for accuracy, bias, and fit with school policy before using it with students.

1

Plan a trial

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Given [USER NEED], [AVAILABLE MATERIALS], and [TIME], suggest two observable tests. Leave the design choice to learners.
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Teacher check: AI use is optional. Review each test for safety and confirm with the user that it measures what matters.

2

Make a test slip

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For [AGREED TEST], write a short print-friendly slip with spaces for a prediction, an observation, and one design decision.
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Teacher check: Check that learners can record an unexpected result and respond in their preferred format.

3

Reflect on evidence

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Compare [ANONYMOUS FIRST RESULT] with [ANONYMOUS SECOND RESULT]. Suggest one question learners could investigate next.
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Teacher check: Remove identifying details and check the comparison against the actual observations.