

Kendeda's Educational Role in Waste Management and Recycling

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Trivia Time!

How should we dispose it?

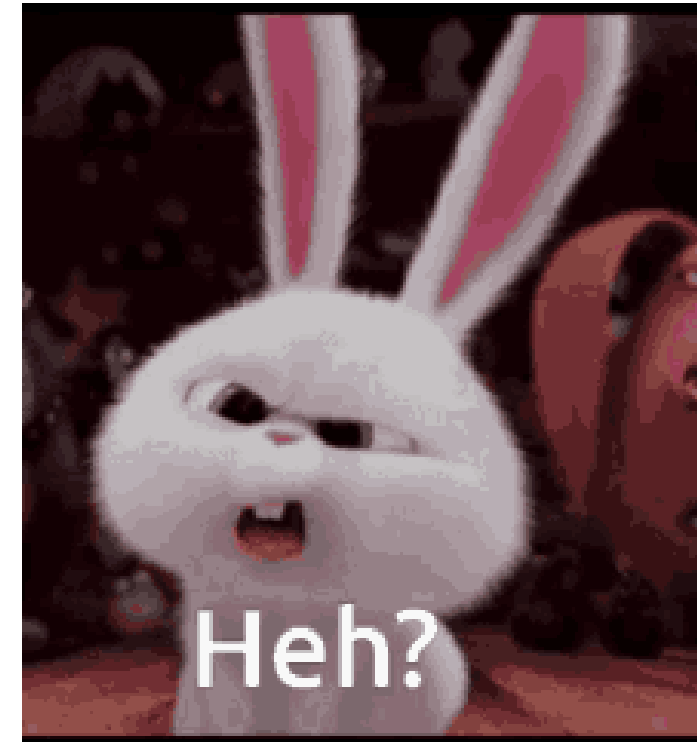
- a. Plastic
- b. Landfill
- c. Aluminum Cans
- d. Compost
- e. Mixed Paper



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Solid Waste Management and Recycling at GT

- **The Office of Solid Waste Management & Recycling (OSWM&R)** provides recycling services inside campus buildings, for the Greek houses, and at several outdoor locations throughout campus.
- The **AWARE** Program (Actively Working to Achieve Resource Efficiency) is an innovative waste minimization program. AWARE places the responsibility on employees to sort and empty their waste into larger bins located within the building. Custodial teams will not service desk-side containers.



Kendeda - the Living Building Challenge

Place



Water



Energy



Health and Happiness



Materials



Equity



Beauty

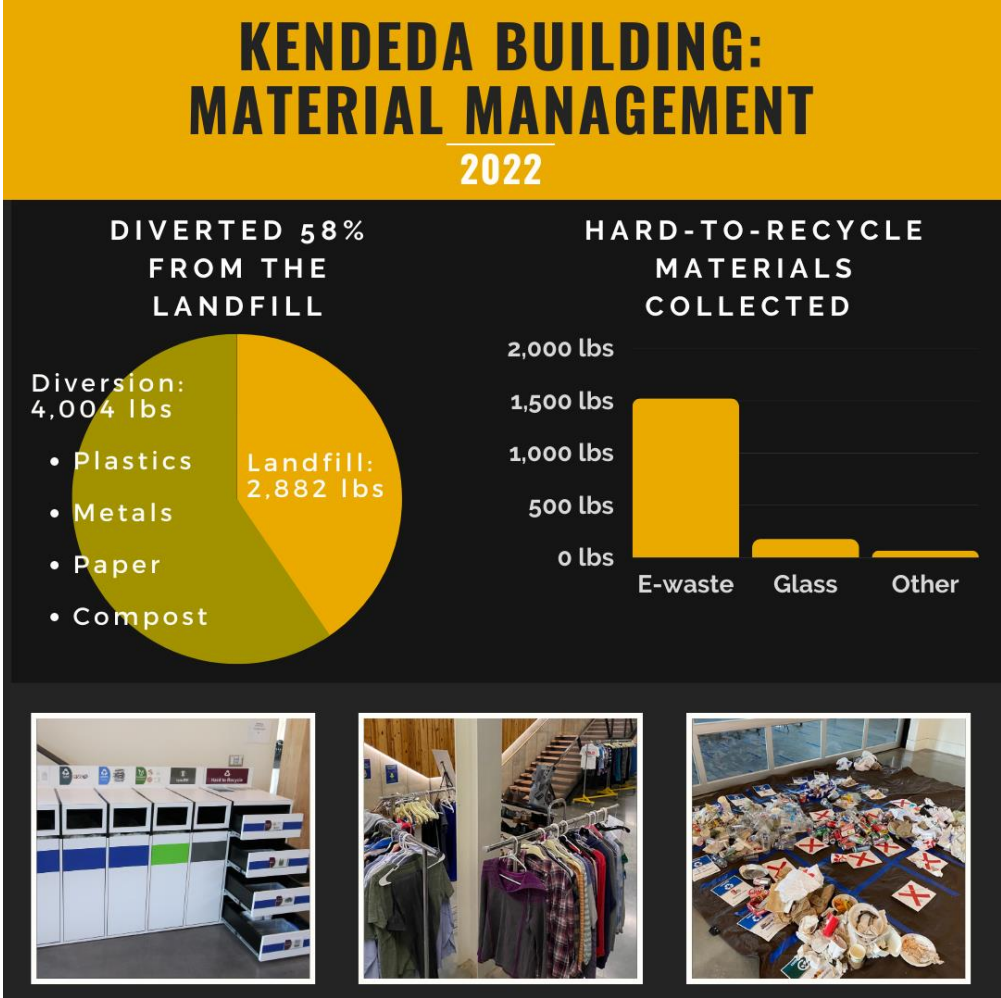


Endorsing products that are safe for all species through time

- Material Petal 3.1: The Imperatives in this Petal aim to remove the worst known offending materials and practices in construction and to drive business toward a truly responsible materials economy.

Kendeda - the Living Building Challenge

E-Waste Diverted: 1,522 lbs
Textiles Waste Diverted: 143 lbs



Research Question

Not all buildings are the Kendeda Building.

How can we utilize the Kendeda Building as an **educational** example in more sustainable waste management and recycling practices?

Concerns from the professionals

- **Interdisciplinary effort:** Only relying on humans to perform net zero waste, we will fail. Engineers and architects should collaborate.
- **Education at all ages:** Education is important. Understanding different materials is important. Understand the audience, offer strategic education about recycling.
- **Future goals:** Kendeda pursue zero waste. Certain products are not allowed in the building. We are still figuring out what is the best for on campus buildings.

Survey Design

- 12 questions with 11 multiple choices questions (Two sections, screening, attitudinal)
- 67 responses gathered.

Your Roles
(Q11)

74%

Students

18%

Staff + Faculty

Visit Frequency
(Q1)

28%

Never

50%

>Once a week

Visit Purpose
(Q2)

62%

Class + Work

6%

Tour

Knowledge of recycling

- More than **75%** of respondents know about Kendeda' s Living Building Challenge Certificate! (Q3)
 - and half of them know details about it
- However, **39.5%** respondents don't know about the solid waste recycling policy at Georgia Tech (Q7)

Attitudes to Kendeda

- Out of 34 replies, **58.8%** think the recycling bins and facilities are *super convenient and clearly labeled* in Kendeda! (Q4&5&6)

Barriers to recycling in daily lives

- Only **25%** respondents out of 48 think they practice recycling equal to or better than GT's standard.
- More than **65%** believe that the facilities not accessible enough is the biggest barrier to proper recycling at home.

Experience X Knowledge

- The more you visit, the more you know!

		Familiarity with Kendeda				
		Total	Not familiar	I have heard	I know the outline	I know clearly
Visit frequency	Total Count	53.0	10.0	9.0	17.0	17.0
	1-3 /semester	13.2%	0.0%	0.0%	29.4%	11.8%
	4-8/semester	5.7%	10.0%	0.0%	0.0%	11.8%
	9-16 /semester	13.2%	10.0%	11.1%	11.8%	17.0%
	>=1/week	43.4%	50.0%	55.6%	35.3%	41.2%
	Never	24.5%	30.0%	33.3%	23.5%	17.0%

- More visits, better behavior.

		Recycle at home				
		Total	Not at all	Only recyclable or not	Same as GT	Better than GT
Visit frequency	Total	48.0	8.0	27.0	10.0	3.0
	1-3 /semester	12.5%	12.5%	14.8%	10.0%	0.0%
	4-8 /semester	6.3%	0.0%	7.4%	10.0%	0.0%
	9-16 /semester	14.6%	12.5%	11.1%	20.0%	33.3%
	>=1/week	43.8%	62.5%	44.4%	20.0%	66.7%
	Never	22.9%	12.5%	22.2%	40.0%	0.0%

Experience X Behavior

- No accessible facilities is the biggest barrier to change.

		Behavior change				
		Total	None	Know more No change	Some changes	Big changes
Perceived barrier	Total	36.0	11.0	10.0	11.0	4.0
	Facilities not accessible	58.3%	54.5%	60.0%	72.7%	25.0%
	No knowledge	16.7%	9.1%	30.0%	18.2%	0.0%
	Lack of incentives	2.8%	0.0%	0.0%	0.0%	25.0%
	Other	13.9%	18.2%	0.0%	9.1%	50.0%

- Most people made changes, at least people visit Kendeda have higher probability make changes

		Behavior Change				
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Visit frequency	Total	36.0	11.0	10.0	11.0	4.0
	1-3 /semester	16.7%	18.2%	20.0%	9.1%	25.0%
	4-8 /semester	8.3%	0.0%	10.0%	9.1%	25.0%
	9-16 /semester	16.7%	18.2%	10.0%	18.2%	25.0%
	>=1/week	58.3%	63.6%	60.0%	63.6%	25.0%
	Never	0.0%	0.0%	0.0%	0.0%	0.0%

Nice comments...

Anything you would like to share with us about your opinion on the solid waste recycling practice across the campus? ⓘ

I think Georgia Tech should rethink our approach to materials management. For example, focus on diverting 100% of plastic bottles and aluminum cans. Create collection bins that are created specifically for plastic bottles and cans. In other words, have full diversion of the two items that we know should be easiest to collect and recycle. ...

All buildings should have the options that Kendeda recycling provides. ...

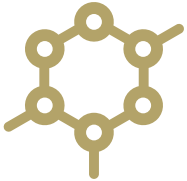
Increased education, engagement, and awareness efforts for all campus members. A staff colleague in ITS who supports student printing/paper sourcing recently reached out to share several observations: 1. At several points each year, they've received reports that the majority of student printers on campus have run out of paper due to excessive printing of resumes for job fairs. They shared that large amounts of resumes are printed and them immediately disposed of following the job fair, often in landfill receptacles. 2. Portions of campus frequently run out of paper due to professors allowing "open notes" tests, so long as the notes were all on paper (no technology). Several students shared with the staff member that they had observed that the majority of the classes printed the entirety of their textbook, used it during the test, then immediately discarded it after the test was complete. This was repeated throughout the semester for each open book test, resulting in significant paper waste in zones with professors taking this approach. ...

Conclusions

WHAT SHOULD WE DO?



Education: Conducting educational campaigns on recycling practices can also be helpful. Holding workshops, distributing flyers or brochures, or creating social media campaigns to educate students, faculty, and staff. Organize public events to require students to visit Kendeda.



Improve Kendeda's facility: Simplifying recycling practices can help increase participation and reduce confusion. Increase the visibility of recycling bins. Adding more signs and labels to the recycling bins and placing them in highly visible locations throughout the building and campus.



Collective work across the society: Partnering with local recycling organizations can help improve recycling practices and provide opportunities for community outreach and education. Providing incentives for recycling, such as stickers.