

Caltech  
green  
labs



# Green Labs Meeting

April 14, 2023

Any questions please email: [greenlabsinfo@caltech.edu](mailto:greenlabsinfo@caltech.edu)

For more information visit <https://greenlabs.caltech.edu>



# Introductions

- Any updates or ideas for on sustainable projects in your lab?



# Green Labs Monthly Tip: Water Purity

- **Use Appropriate Water Purity for Each Experiment**
- Water comes in many shapes and sizes in the lab, ranging from tap water to ultra-pure water. However, **did you know** it takes 3 gallons of water to make just 1 gallon of deionized (DI) water? You can help conserve water by using the **appropriate grade** of **purity** required for your work. Manufacture of higher purity water requires high pressure pumps and filters, all of which increase the energy consumption, consumables, and wastewater production. These adjustments will also help reduce financial and energy costs for your lab, and you won't have to replace those pesky water filters as often!

# Updates: New Certified Green Labs!



## Certified Green Labs

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Platinum Certification

Gradinaru Lab

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Gold Certification

Ondrus Lab

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Platinum Certification

Prober Lab

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Gold Certification

Sternberg Lab

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Gold Certification

Voorhees Lab

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# Samples

- From last time (and this time)
  - PolyCarbin – ~~100% recycled from old lab plastics~~
    - LTS and Rainin compatible
    - Filtered and non-filtered
    - Tips are not recycled, tip boxes are!
  - [Biobased](#) conical tubes from Eppendorf
  - Do people like them? Any feedback?



# Samples

- Stickers! – used TechHub Cricut!



- Biodegradable gloves from Genesee
  - Ask Parker for a good discount!
- Boise copy paper – 100% recycled
- Post-it Greener Notes – 100% recycled
- Second Nature Notepads – 100% recycled
- PolyCarbin – 100% recycled from old lab plastics
  - LTS and Rainin compatible; Filtered and non-filtered
- Rocketbook – reusable and erasable notebook, download to your favorite app!
  - Can purchase refillable pens and ink!



# Updates

- Green Labs is throwing an event with sweet treats for all labs that are certified by April 22<sup>nd</sup> (Earth Day!)
- Get CERTIFIED TODAY!



# Updates

- Green Labs is throwing an event with sweet treats for all labs that are certified by April 22<sup>nd</sup> (Earth Day!)
- Get CERTIFIED TODAY!

**Caltech green labs**

**IS CHALLENGING YOU:**  
**GREEN LABS | CERTIFY YOUR LAB BEFORE EARTH DAY (APRIL 22)!**

**If your lab is Green Labs Certified by Earth Day (April 22), Green Labs is inviting YOUR LAB to have a SWEET TREAT and enter a fun RAFFLE at a top secret location only given to those most excellent and certified green labs.**

**Your lab will also get a Certified Green Labs Plaque!**




Download the Certification Form today!  
Date: Top Secret  
Location: A secret only given upon certification  
All Certified Labs are welcome!

Start your Green Labs Certification today!



Or check our website for more information about this event, or find Green Labs tips to make your lab more sustainable!



# Updates

< April >

SUN	MON	TUE	WED	THU	FRI	SAT
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	1	2	3	4	5	6

Day
  Week
  Month
  Term

< **Saturday, April 22, 2023**

**All Day**  
Ongoing

**Volleyball League**  
*Braun Gym*

[LEARN MORE >](#)

[Add to Cal](#)

**All Day**

**Green Labs Certification Challenge 2023**

[LEARN MORE >](#)

[Add to Cal](#)

< April >

SUN	MON	TUE	WED	THU	FRI	SAT
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30	1	2	3	4	5	6

Day
  Week
  Month
  Term

< **Friday, April 28, 2023**

**All Day**  
Ongoing

**Volleyball League**  
*Braun Gym*

[LEARN MORE >](#)

[Add to Cal](#)

**11:00am**  
–  
**12:00pm**

**High Energy Theory Seminar**  
*Online and In-Person Event*

TBD

Edgar Shaghoulain, UC Santa Cruz

[LEARN MORE >](#)

[Add to Cal](#)

**1:00pm**  
–  
**3:00pm**

**Green Labs Lightning Talks 2023**  
*Chen 100*

[LEARN MORE >](#)

[Add to Cal](#)

## Announcements

### Campus Groups



March 22, 2023

#### Green Labs Certification Challenge

Caltech Green Labs



March 22, 2023

#### Green Labs Lightning Talks 2023

Caltech Green Labs

# Updates

- Survey available for lab managers
  - Prize for completion is recycling bins and signage for their labs!



# Updates: April BBE Newsletter

- To celebrate Earth Day, Green Labs has three exciting new adventures this month!
- First, Green Labs are installing **tabletop composter [Lomi's](#)** in the kitchen areas of the Chen building. These are our first pilot program! These tabletop composters will hopefully encourage labs to reduce food waste and contribute to our community by adding our composting to the lovely gardens throughout campus. Instructions will be on the devices. Composting should be a simple addition to our lunchtimes!
- Secondly, Green Labs is hosting **[Lightning Talks](#) on April 28th**, where we are inviting folks to give 3-minute talks from labs highlighting sustainable initiatives in their labs. We are providing food, drinks, and sustainable giveaways for attendees and giving RocketBooks (sustainable notebooks) to our presenters. If you would like to attend or present at this event, please use the link below!
- Lastly, Green Labs is celebrating Green Labs Certified Labs! **[Green Labs Certification](#)** takes less than 30 minutes, but there are huge benefits. Your lab will even be awarded a brag-worthy plaque to post outside your lab. Your lab will also gain access to special deals and events, and you can include this certification to boost your grant applications. **If your lab is certified by April 22<sup>nd</sup> (Earth Day), we will invite your entire lab to a [special event](#) to celebrate!**

# Updates

- WiBBE Social Event(s)
  - Set up a booth, bring a laptop to sign folks up and/or complete certification
    - Poster(s) with information about website, certification, Guides, meetings
    - Swag and a raffle at end of night for Rocketbook and/or swag bag



Do you wish you could work to make your lab more sustainable,  
all without compromising research objectives?

COME JOIN OUR  
**PLANT  
PARTY**

WIBBE is providing refreshments for members to come together and repurpose used pipette tip boxes as new homes for succulents. We are partnering with Green Labs to promote sustainable lab practices and enjoy a fun social hour!



HOSTED BY



Green Labs has sustainable guides, signage, and funding for sustainable pilot programs, which can help labs safely and simply reduce costs and become more efficient, while protecting research objectives. Check out our website for sustainable resources, events, and updates!

AT CHEN SUNKEN GARDEN  
March 16, 2023 4-6PM

supported by  USA SCIENTIFIC



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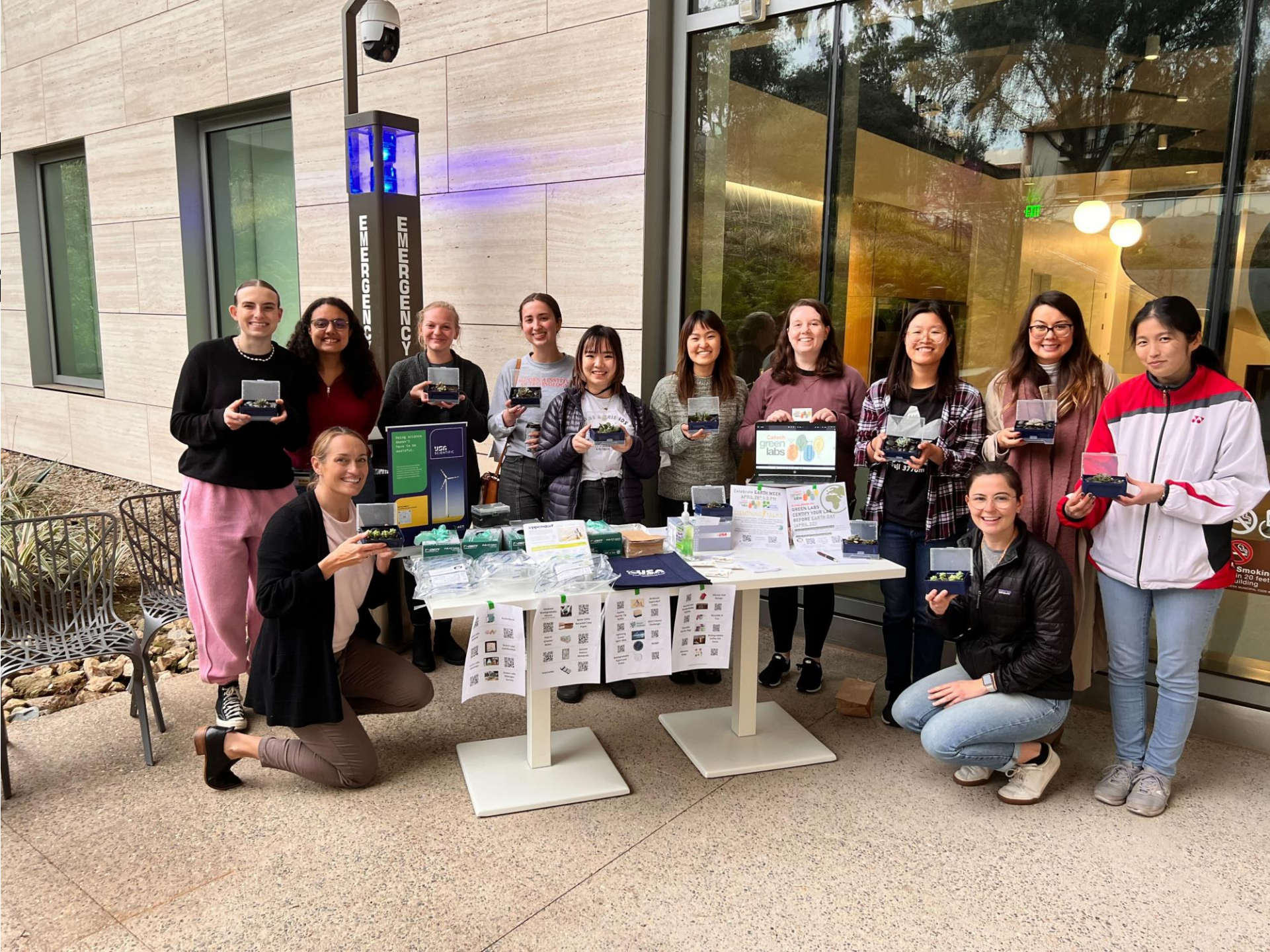
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# Update on Pipette tip box recycling

- Vijaya Kumar



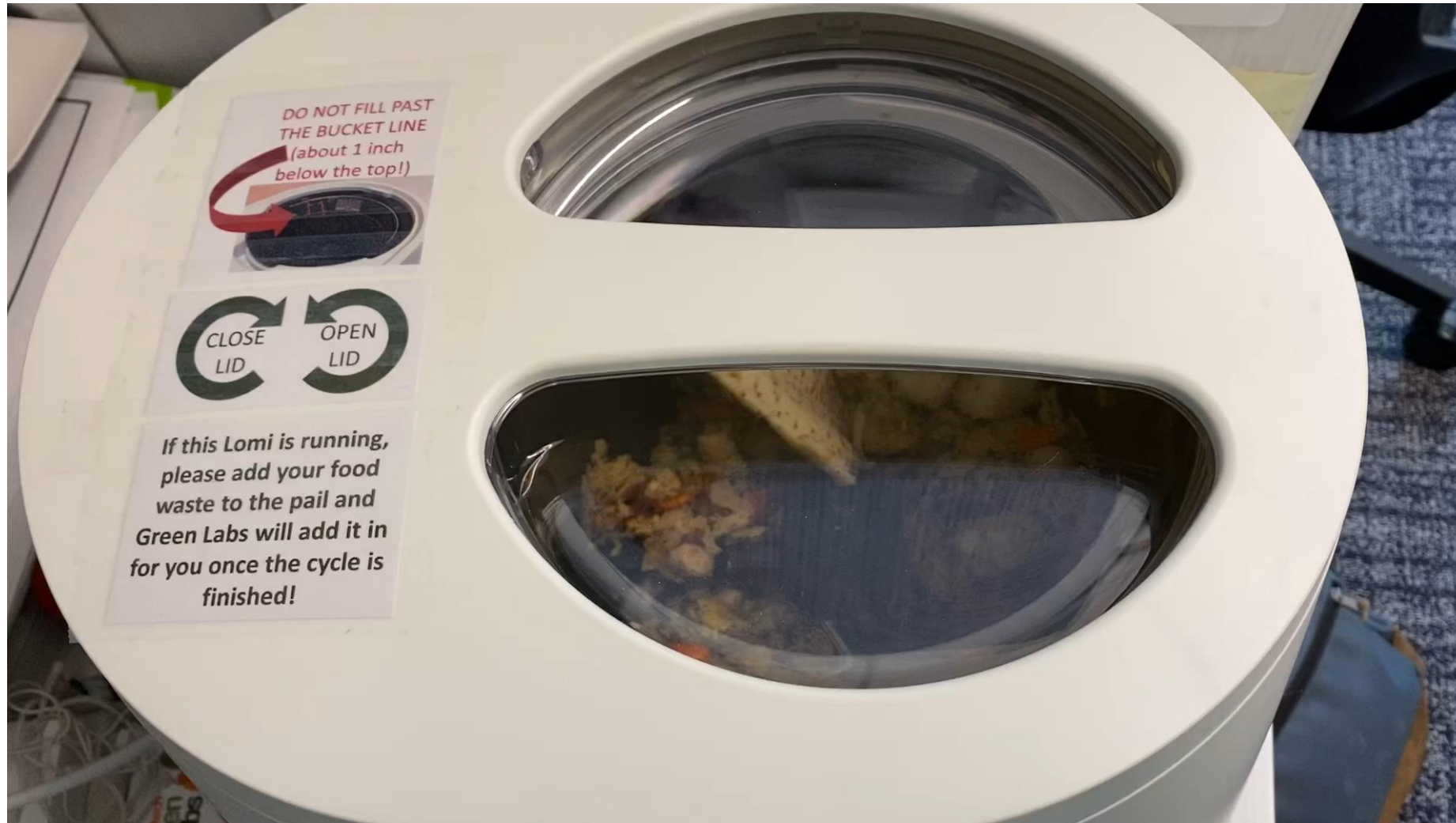


# Lomi Presentation/Update

- One in each Chen kitchen
  - Sarah, Yvette, and myself watching/running them
- Collaborating with Caltech Gardens
  - They are taking our soil/compost for the grounds!



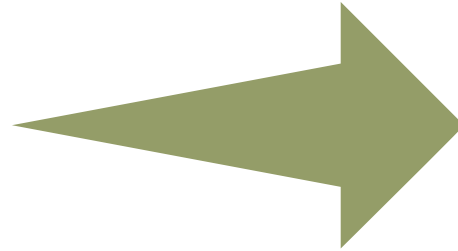
# Lomi Presentation/Update



# Lomi Presentation/Update



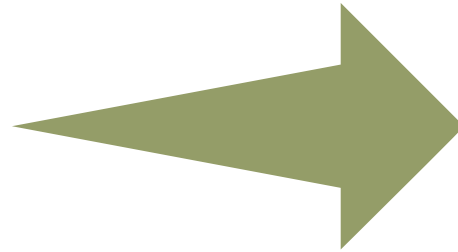
~30 mins later....



# Lomi Presentation/Update



~5 hours later.....



# Lomi Presentation/Update

## LOMI COMPOSTING GUIDE

Installing tabletop composters is Green Labs' first sustainable pilot project!  
For a more detailed list of what can go into the Lomi, please scan the QR code.

### COMPOSTABLE



### NOT COMPOSTABLE



### Lomi makes composting easy



#### FILL

Add your compostable food scraps, coffee grounds, and other food waste to the Lomi. Please follow the guidelines posted here!



#### TRANSFORM

Green Labs colleagues will run the Lomi (~5h cycle) twice a week for the duration of our pilot to break down our food waste!



#### RECLAIM

Green Labs colleagues are collaborating with Caltech gardeners to use the compost Lomi makes on the Caltech grounds!

Check out the Green Labs website for more tips and tricks to make your lab more sustainable!



Check out the Lomi website here for more information on Lomi or to take a look at the manual.

# Lomi Presentation/Update

## LOMI COMPOSTING GUIDE

### COMPOSTABLE



### NOT COMPOSTABLE



### THREE EASY STEPS

## Lomi makes composting easy



### FILL

Add your compostable food scraps, coffee grounds, and other food waste to the Lomi. [Please follow the guidelines posted here!](#)



### TRANSFORM

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# Recycling Signage/Update

## LAB RECYCLING

Safe for the Trash? Recycle Clean Glass, Plastic, Metal, Paper, and Cardboard  
*Follow EH&S Guidelines for Biohazardous, Radioactive, Chemical, and Electronic Waste*

<b>Bottles</b> (No Caps or Residue & Deface Labels)	<b>Containers</b> (No Caps or Polystyrene)	<b>Packaging                      &amp; Paper</b>	<b>NO</b> sharps; e-waste; gloves; foam; biohazardous, radioactive, or chemical waste; coated bottles; autoclavable glass (e.g. pyrex); ice packs; food; or soiled paper
			

**Caltech** Sustainability      [sustainability.caltech.edu](http://sustainability.caltech.edu)

# Recycling Signage/Update

## LAB RECYCLING GUIDE

Follow EH&S Guidelines for biohazardous, radioactive, chemical, and electronic waste

**Glass and Plastic Bottles:**  
Triple-rinse your bottles, collect rinsate as hazardous waste, deface/remove the label, and recycle empty bottle.  
No broken glass, glass pipette tips, or pyrex glass.



**Lab containers:**  
Non-hazardous centrifuge tubes, conical tubes, weigh boats, pipette tips, pipette tip boxes and wafers, petri dishes.



**Packaging, Paper, and Metals:**  
Flattened cardboard boxes, papers, cartons, aluminum/tin cans, scrap metal.  
No kimwipes, PCR plate seals or seal paper, paper towel, magazines.



**NO:**  
Sharps, e-waste, gloves, foam, soft plastic bags, biohazardous, radioactive or chemical waste, coated bottles, autoclavable glass (pyrex), ice packs, food, soiled paper towels, kimwipes, PCR plate seals, seal paper.



Check out the Green Labs website for more tips and tricks to make your lab more sustainable!



## LAB RECYCLING GUIDE

Please separate recycling and follow EH&S Guidelines for biohazardous, radioactive, chemical, and electronic waste



Check out the Green Labs website for more tips and tricks to make your lab more sustainable!





# Recycling Signage/Update

Caltech **KNOW WHAT TO THROW**

**✓ yes please**

MIXED PAPER	BOTTLES & CANS	OTHER RECYCLABLES	CARDBOARD
All Paper Types	Cash Redemption Value Only	Unsure? Recycle Here if Clean	Flattened & Empty

**✗ NO food, liquid, soiled paper, ice, e-waste, bags, wrappers, or packaging**

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Caltech Sustainability learn more at [sustainability.caltech.edu](http://sustainability.caltech.edu)

# Recycling Signage/Update

### RECYCLING GUIDE

Follow EH&S Guidelines for biohazardous, radioactive, chemical, and electronic waste

**Other Recyclables:**  
Unsure? Recycle here if clean!

**Bottles and Cans:**  
Cash Redemption Value Only

**Mixed Paper:**  
Flattened and empty

**NO:**  
Food, liquid, soiled paper, ice, bags, e-waste, wrappers, or packaging

Check out the Green Labs website for more tips and tricks to make your lab more sustainable!

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**Other Recyclables: Unsure? Recycle here if clean!**

**Bottles and Cans: Cash Redemption Value Only**

**Mixed Paper: Flattened and empty**

**Not Recyclable:**

Check out the Green Labs website for more tips and tricks to make your lab more sustainable!

# Green Labs Hosting Lightning Talks

- Chen 100 1-3pm
- Genesee is bringing
  - Snacks/coffee/food
    - Valentine Sweets
  - Some swag
  - Presentation
  - Booth?
- We will provide lemonade, coffee etc
  - Hosting a zero-waste event
    - Biodegradable cutlery and plates and cups
    - OR we encourage folks to bring their own cutlery and cups
    - Pop cans that are recyclable (not plastic!)



## WELCOME TO VALENTINE SWEETS

Woman founded & owned, all- organic, gluten-free, vegan and diabetic friendly, earth-friendly

# Green Labs Hosting Lightning Talks

- Held April 28 (Earth Day is April 22<sup>nd</sup>)
- Each talk is 3 minutes with time for questions
  - Projects their lab HAS done that has made them more efficient or sustainable
  - OR projects they would LIKE to do
  - We present on Green Labs and we can present a module or an initiative in our labs
- Presenters will be awarded a RocketBook!
- Attendees will be entered into a sustainable raffle!
- Submissions are open soon and accepted until ~April 24<sup>th</sup>
  - Asking folks to send an idea and slide(s) for their 3 minute talk



# Green Labs Lightning Talks

- Before the event we need volunteers for:
  - Artwork on the outer-most sections of the whiteboard?
  - Other topics for presentations (Dining center?)
  - Raffle prize! (bento box!)

Celebrate **EARTH WEEK**  
**APRIL 28<sup>th</sup> 1-3 PM**



## LIGHTNING TALKS

To celebrate EARTH WEEK, Green Labs is inviting YOU to present or attend a session of 3-minute talks highlighting lab efficiency and sustainability initiatives.

Our presenters will be gifted a RocketBook, and attendees will be entered into a raffle!



In this zero-waste event, Green Labs is partnering with Genesee Scientific to provide food, sustainable giveaways, and great presentations.



Please RSVP to our event.  
Proposals are due April 14.  
Location: Chen 100  
All are welcome!

**EVERYONE**  
is welcome!



Or check our website for more information about this event, or find Green Labs tips to make your lab more sustainable!



# Green Labs Lightning Talks

- We need a few more presenters!
  - Talks can be on anything related to lab sustainability
    - Current initiatives
    - Future ideas your lab wants to explore
    - Green Labs pilot projects (or potential projects)
    - Crazy ideas you want to bring to the group!
  - So far we are very excited about the following speakers:
    - James Linton
    - Kate Malecek
    - Vera Beilinson
    - Parker Thome (Genesee)
    - Sarah Torres
    - Tasha Cammidge



# Green Labs Lightning Talks Volunteers!

- We will email each person soon with details of their duties
  - Organizing talks and slides – JE (TC/ST will receive them and forward them)
  - Organizing tables/spaces for food and vendor “booth” and GL “booth”- BG
    - We would like to try to do a zero-waste event, so we should promote that
  - A/V support - TC
  - Moderating the questions and keeping speakers on track - MR
  - Personning the Green Labs booth/area - ML
    - Have a Green Labs booth with laptops for folks to sign up or complete their certification and grab bags with GL swag/samples
  - Picking up the food or being point person on food delivery if vendors are not bringing it themselves? – ST?

# For Next Time

- Photos!
- Work on Action Plan
- Slack?
  
- Anything Else?



- Next Meeting May 12th 12pm Location TBD (possibly Chen 240)
  - Bring a friend and get a RocketBook!





# Action Plan

- Start putting names on projects
- Added a sign-up sheet to the Drive for people to sign up as well!
- Are other projects folks want to take on that are not in our action plan?
- Start working on write-ups for newsletters

# Action Plan

- Develop the Newcomer Welcome Guide, Welcome Package, and Survey Thank-yous
  - Related to GL Certification form, could tie in information in the Guides, help organize swag and distribute etc, includes signage discussed below
- Update GL Certification form with links, tips etc
- Chemical and equipment share program/email
- Pilot program
  - Especially editing and testing submission forms
  - Coordinating submissions, coordinating with faculty sponsors

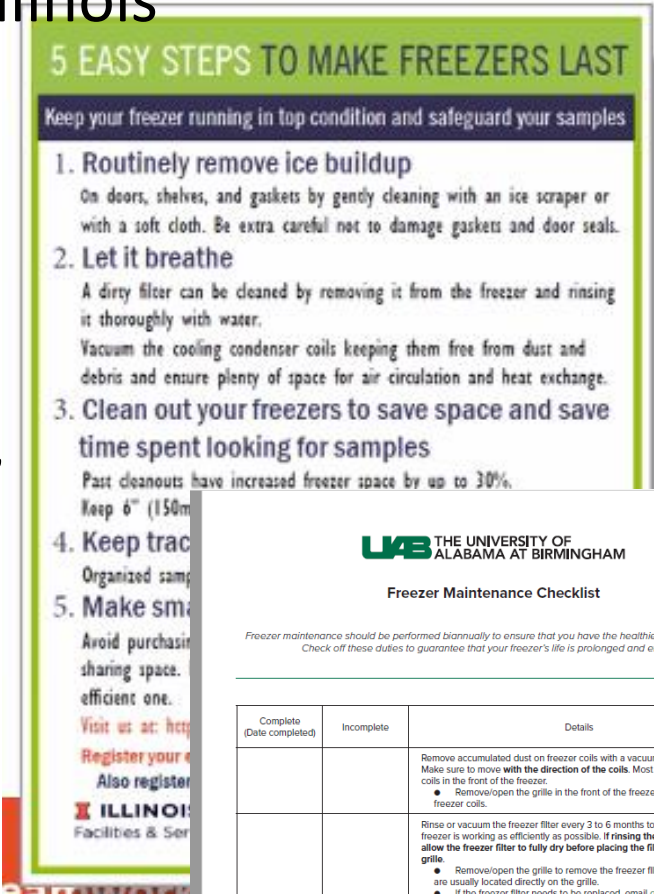
# Action Plan - Inventories

- -80 freezers
- Autoclaves
- Fume Hoods
  - Coordinating volunteers to help with this, talking with lab managers or Jesse etc
  - Making spreadsheet and taking inventory in BBE
  - Standardized signage (for scheduling runs etc)
  - Talk with lab managers about scheduling fewer loads a week or collaborating with nearby labs to reduce runs etc
  - Making a map
  - Suggest empty or unused equipment be turned off (eg fume hoods)
  - Encouraging participation in the freezer challenge

# Action Plan

Univ. of Illinois

- Freezer cleanout signage
  - “Stickers” or signs that promote the freezer challenge or participation in GL freezer stuff
  - “5 ways tips and tricks for keeping a green freezer” signage
  - A simple laminated sign (magnet?) that can be updated when the last cleanout was done or something like that



Univ. of Alabama

**UAB THE UNIVERSITY OF ALABAMA AT BIRMINGHAM**  
Freezer Maintenance Checklist

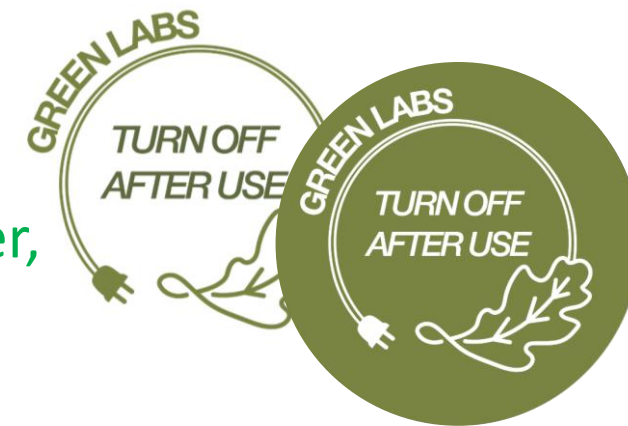
*Freezer maintenance should be performed biannually to ensure that you have the healthiest freezer possible! Check off these duties to guarantee that your freezer's life is prolonged and efficient.*

Complete (Date completed)	Incomplete	Details
		Remove accumulated dust on freezer coils with a vacuum or a gloved hand. Make sure to move <b>with the direction of the coils</b> . Most freezers have their coils in the front of the freezer. <ul style="list-style-type: none"> <li>Remove/open the grille in the front of the freezer to access the freezer coils.</li> </ul>
		Replace or vacuum the freezer filter every 3 to 6 months to ensure the ULT freezer is working as efficiently as possible. If <b>freezing the freezer filter</b> , allow the freezer filter to fully dry before placing the filter back in the grille. <ul style="list-style-type: none"> <li>Remove/open the grille to remove the freezer filter. Freezer filters are usually located directly on the grille.</li> <li>If the freezer filter needs to be replaced, email <a href="mailto:greenlabs@uab.edu">greenlabs@uab.edu</a> for assistance.</li> </ul>
		Check door seals for any ice buildup. In the event of ice buildup, gently wipe away at the ice with a cloth or soft brush. If ice has hardened, carefully chip away using an ice scraper. <b>Do not use any blunt objects (hammers, screwdrivers, etc.) to remove ice. This can permanently damage the freezer!</b>
		Defrost the freezer (applicable to ULT and -20° freezers) annually or biannually. If the freezer has built up more than 1/2" of ice, the freezer becomes much more inefficient and can compromise sample integrity. <ul style="list-style-type: none"> <li>When defrosting a freezer, make sure to allow one day for ice to thaw and melt. Use plenty of towels and ice bins to prevent flooding within the lab.</li> </ul>
		If possible, place your freezers near an air vent in your lab to allow for proper air circulation. Do not store items on top of your freezer. This causes heat to build up behind the freezer and can overwork the compressor.
		When possible, eliminate old, low-priority samples from freezers to reduce occupied freezer space.
		Consult the freezer's manual for any additional freezer maintenance that should be performed.



# Action Plan

- Energy Assessment – JL?
  - Tool for assessing how much energy your lab uses based on the equipment you have
  - Assess where your lab is “spending” energy, to inform decisions on how to manage usage
- Signage for equipment – Sami/TC
  - Already in the works, waiting on our amazing graphic designer, Sami, to send us finished versions
  - Will print stickers to give out in welcome packages etc
- Sustainable, fun projects to do with kids
  - Sock mammoth
- Energy and Water assessments (JL, JE?)



# Action Plan

- Events Guide
  - Working with Brianna (who has started the Restaurant Guide)
  - This project would involve collecting resources for sustainable or zero-waste events
  - You may also want to collaborate with Brianna Garcia (see below), who is putting together the Sustainable Restaurant Guide
  - Help do the write-up
- Restaurant Guide - BG
  - Gathering sustainable restaurants and putting them into a few documents (breakfast, lunch, dinner, that kind of thing)
  - We would LIKE to call each of the vendors she has found and see if they would be willing to give us a discount (10%?) for promoting them on GL

# Action Plan

- Incorporating green chemistry or other topics into curriculum for grad students
  - Cost effective
  - Easy for profs to adopt
  - Grad students get professional development, they can make slides or adjust slides or curriculum, teach a class
- Reaching out to GSA?
- CLTO workshops?
- Victoria Orphan or other profs interested in sustainability?
- Working with Pamela Bjorkman for the graduate course where you design your own curriculum and train other grad students?
- Surveying students for interest

# Freezer Challenge

- **WHAT:** The International Institute for Sustainable Laboratories (I2SL) and My Green Lab are partnering for the seventh year in a row to coordinate the International Laboratory Freezer Challenge. Designed to promote best practices in cold storage management for laboratories around the world, the Freezer Challenge harnesses a spirit of competition to achieve greater energy efficiency, sample integrity, and sample access.
- **WHO:** All laboratories from all sectors that have cold storage.
- **WHEN:** January 1 to July 1, 2023. Scoresheets will be accessible starting January 1. You can count any actions you've taken from August 1, 2022 to July 1, 2023 on your scoresheet for points.
- **REGISTER:** At [www.freezerchallenge.org](http://www.freezerchallenge.org)
- **COST:** It's free upon online registration AND you get to come to Green Lab's popsicle party after the event!

THE 2023 INTERNATIONAL LABORATORY



## freezer challenge

**WHAT IS THE FREEZER CHALLENGE?**

The International Institute for Sustainable Laboratories (I2SL) and My Green Lab are partnering for the seventh year in a row to coordinate the International Laboratory Freezer Challenge. Designed to promote best practices in cold storage management for laboratories around the world, the Freezer Challenge harnesses a spirit of competition to achieve greater energy efficiency, sample integrity, and sample access.

**WHAT SHOULD I KNOW BEFORE I SIGN UP?**

**WHO:** All laboratories from all sectors that have cold storage.  
**WHEN:** January 1 to July 1, 2023. Scoresheets will be accessible starting January 1. You can count any actions you've taken from August 1, 2022 to July 1, 2023 on your scoresheet for points.  
**REGISTER:** At [www.freezerchallenge.org](http://www.freezerchallenge.org)  
**COST:** It's free upon online registration  
**AWARDS:** Winners receive plaques or certificates and get acknowledged in an online publication. They also get recognized at the I2SL Conference.  
**QUESTIONS?** Contact [info@mygreenlab.org](mailto:info@mygreenlab.org)

**WHY PARTICIPATE?**

Have impact! Participants in the 2022 Freezer Challenge saved a combined 9.5 million kWh/year as a result of their actions—equal to avoiding 6700 metric tons of carbon dioxide emissions. Get your laboratory engaged with doing science in more sustainable ways! The Freezer Challenge benefits your research *and* the planet.

**FOCUS AREAS**

-  **Good Management Practices**
-  **Temperature Tuning**
-  **Unit Retirements, Upgrades, and Unplugs**
-  **Cutting Edge Practices**
-  **Freezer and Sample Inventories**

Rise to the Challenge!

Sign up at [www.freezerchallenge.org](http://www.freezerchallenge.org)

**SPONSORS**










# Green Labs Certification

- Takes ½ hour
- Very simple!
- See <https://greenlabs.caltech.edu> for the form
- Get a plaque!
- Green Labs will give you bins and signage for your lab!



# Zoom link

- Join Zoom Meeting
- <https://caltech.zoom.us/j/86357284963>

# Other Tasks (not started)

- Newsletter introduction (needs BBE and Max approval before publication) - Elisha
  - Submit by Jan.
  - Visuals, simple, lead it to our website or meeting times etc, put some trivia in
- Event(s)
  - Earth Week April 2023, Vendor Show March 2023? (work with purchasing on date)
- Green Labs Guide
  - Draft on drive, submit by Fall 2023, update modules as we are able - – James will do energy and water, Elisha
- Recycling Guide
  - Submit completed version by Fall 2023
- Recycling bin signage and freezer clean-out signage (laminated)
  - Develop, pilot, adjust, and submit by Fall 2023
  - Work with custodial services to see how we can work with them, increase efficiency etc
- Pilot program newsletters
  - As needed for quarterly BBE newsletters
- Pilot Program Application – draft on drive, Kate tester
- Survey – James, giveaway, Sarah, send to lab managers first, then poll rest of BBE, follow up with gifts
  - Different avenues, energy, space

# Guide Modules

- [Energy Efficiency](#)
- [Water Conservation](#)
- [Green Labs Certification](#)
- [Waste Reduction](#)
- [Green Chemistry](#)
- [Sustainable Procurement](#)



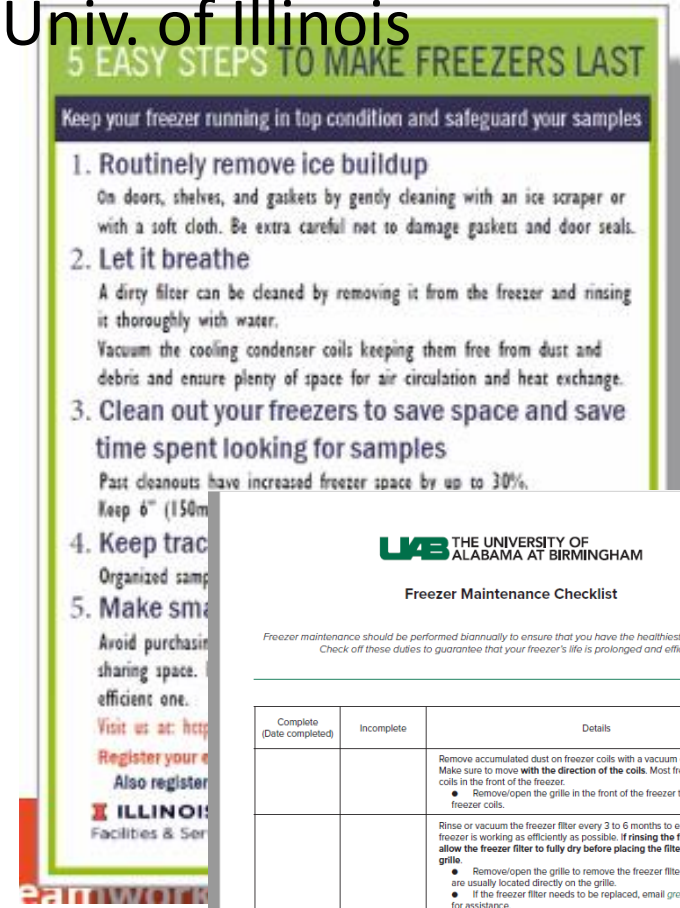
# Plan for 2023

- January
  - Launch of website and first newsletter!
- February
  - First meeting with new recruits and lunch!
  - Go through information available online and discuss Action Items, start delegation of tasks
  - Ask recruits what they want to learn about during the last 15 minutes or so
  - Survey(s) finalized and sent out to lab managers etc
- March
  - Finalize Restaurant Guide
  - Edit GL Certification Scorecard
  - Newsletter (on Certification OR Pilot Projects OR **GL “Town Hall”** with lightning presentations)
  - Meeting with faculty to promote Green Labs
- April
  - GL “Town Hall”
  - Finalize GL Certification module and form
  - Finish “stop light” stickers and put together welcome package and Welcome Guide
  - Finish pilot projects intake forms, open for submission in June

# Plan for 2023

- May – December
  - Newcomer welcome package
  - Recycling bin signage
  - Freezer signage
  - Pilot Program applications open ~June/July
  - Pipette/Styrofoam/ice pack recycling point locations
  - -80 freezer inventory
  - Autoclave inventory
  - Chemical and equipment share program/email

Univ. of Illinois



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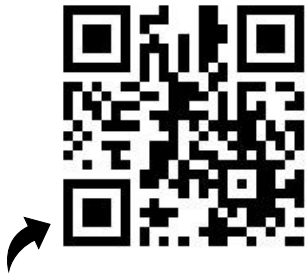
**UAB THE UNIVERSITY OF ALABAMA AT BIRMINGHAM**

**Freezer Maintenance Checklist**

*Freezer maintenance should be performed biannually to ensure that you have the healthiest freezer possible! Check off these duties to guarantee that your freezer's life is prolonged and efficient.*

Complete (Date completed)	Incomplete	Details
		Remove accumulated dust on freezer coils with a vacuum or a gloved hand. Make sure to move with the direction of the coils. Most freezers have their coils in the front of the freezer. <ul style="list-style-type: none"> <li>Remove/open the grille in the front of the freezer to access the freezer coils.</li> </ul>
		Rinse or vacuum the freezer filter every 3 to 6 months to ensure the ULT freezer is working as efficiently as possible. If rinsing the freezer filter, allow the freezer filter to fully dry before placing the filter back in the grille. <ul style="list-style-type: none"> <li>Remove/open the grille to remove the freezer filter. Freezer filters are usually located directly on the grille.</li> <li>If the freezer filter needs to be replaced, email <a href="mailto:greenlabs@uab.edu">greenlabs@uab.edu</a> for assistance.</li> </ul>
		Check door seals for any ice buildup. In the event of ice buildup, gently wipe away at the ice with a cloth or soft brush. If ice has hardened, carefully use an ice scraper. Do not use any blunt objects (hammers, pry bars, etc.) to remove ice. This can permanently damage the door seal.
		Defrost the freezer (applicable to ULT and -20° freezers) annually or biannually. If the freezer has built up more than 1/2" of ice, the freezer becomes much more inefficient and can compromise sample integrity. <ul style="list-style-type: none"> <li>When defrosting a freezer, make sure to allow one day for ice to thaw and melt. Use plenty of towels and ice bins to prevent flooding within the lab.</li> </ul>
		If possible, place your freezers near an air vent in your lab to allow for proper air circulation. Do not store items on top of your freezer. This causes heat to build up behind the freezer and can overwork the compressor.
		When possible, eliminate old, low-priority samples from freezers to reduce occupied freezer space.
		Consult the freezer's manual for any additional freezer maintenance that should be performed.





**Please RSVP to our event.**

**All are welcome!**



**Or check our website for more information  
about this event, or Green Labs tips to make  
your lab more sustainable.**