

# Composting for Schools



#### **Presentation Agenda**



- Compost Cats: Program Overview
- Compost Cats: Education Team
- What is & Why Compost?
- Tumbler System Overview
- Educational Materials
- System Management



#### About Compost Cats

Reducing and diverting organic waste

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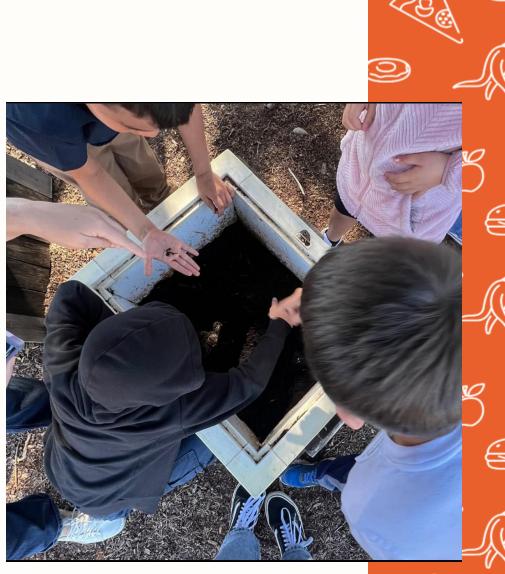
- Increase local food security, improving soil quality,
  & carbon sequestration.
- Offering the largest commercial and residential composting programs in southern Arizona.
- Several teams EDU, Maintenance, Marketing, etc.
- Teach about compost and sustainability with our partner sites (Tucson Village Farm & Cooper Center for Environmental Learning)





### Compost Cats EDU Team

- Educates the local community about compost, why it's important, and how to get involved!
- Where do we visit?
  - o K-12 Schools
  - Tucson Village Farm (partnership)
  - Cooper Center for Environmental Learning (partnership)
  - Outreach Events





## What is Compost?

• A nutrient-rich and nourishing soil amendment created through the natural process of decomposing organic material, like food waste.

#### Benefits –

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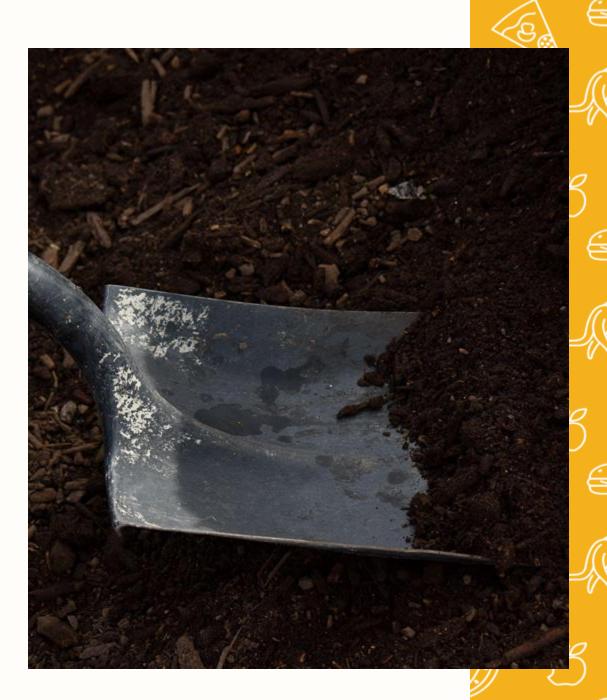
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- Reduces waste
- $\circ$  Prevents plant disease
- $\circ$  Improves nutrition
- $\circ$  Retains soil moisture
- $\circ~$  Improves viability of plants



### Why Do we Compost?

- Composting helps fight climate change, decomposing food waste releases methane gas, composting reduces that.
- 1/3 of the world's food supply is wasted every year
- 1/3 of the world's fertile soil has been degraded
- Circular food cycle = fighting food insecurity



### Tumbler System: Parts & Safety

- Quick and easy system for limited space.
- Two hatches to put waste in, "cooking" and "adding", in addition keeps odors in and pests out.
- Standing on legs for easy turning and higher above the ground, to restrict animal access.
- Adding more "browns" to reduce smells from "greens" (20:1 ratio).





### **Materials for Tumbler**

- Tumbler
- Gloves
- Browns
- Greens
- Hose/Watering Can
- Stool/Step
- Thermometer
- Scale
- Handsaw or Garden Shears



### Tumbler System: How It Works

- Add your greens and browns (1:3 ratio) to both of the sections, will stop adding to one of the sections eventually.
- Water and turn the materials at least 3x a week
  Water until moist
- This system produces compost quickly if done right, 6-8 weeks, because of the amount of air introduced to it



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#### Tumbler System: Maintenance

If your tumbler isn't producing compost:

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- Are you watering and turning at least 3x a week.
- Have the correct browns to green ratio.
- Is it too moist? Let it dry out and turn more frequently.
- Is there a lot of gnats? Add more browns and dry it out.
- Make sure your browns are in smaller pieces rather than larger chunks.



### Managing Your System

#### Who Will Oversee Food Waste Collection?

- Large scale: A student/staff monitor during lunch periods, helping students sort waste into recycling, landfill, and composting buckets
- Small scale: One teacher or one classroom tracks how much food waste they're bringing in, if the tumbler needs more, or if the tumbler is full/doesn't need more waste.

#### Who Should Be in Charge of Maintenance?

- Large-scale vs. Small-scale (see above)
- Classrooms can take turns on different weeks or have designated days of the week
- School Garden Coordinator

#### How Will We Track Maintenance?

- Record and log each time compost is turned, watered, or the temperature is taken.
- See tracking sheet example on next slide



Tumbler Temperature Tracking Log Sample

Sheet Number: left side (1)

	1		0	0 1	
Date	Temp.	Air Temp.	Moisture	Water Added	Notes
2/25/2024	75°	85°	Yes	No	Compost moist but not dripping, no water added. Turned x10 times.
2/27/2024	78°	82°	No	Yes	Interior dry. Added one watering can. Turned x10 times.
3/1/2024	85°	81°	Yes	No	Still moist from last watering. Temp increasing. Turned x10 times.

### **Educational Benefit**

#### Learning Objectives:

- Students will be able to explain how food waste can be used to create compost and enrich soil health.
- Students will be able to identify the ingredients of compost.
- Student will be empowered to take action and divert their own food waste away from landfill.



#### In summary,

Compost Cats is a **student-run** employee organization at the University of Arizona. Our Education team specializes in teaching the **how's** and **whys** of composting to the surrounding area.

Today we hope you learned that composting with a tumbler is an easy and effective way to teach your students about climate change, food insecurity, and resource conservation!

#### Thanks!



### Like what you see here? Want Compost Cats to come to your school for a demo/want to do a field trip to one of our sites?

#### Contact us!

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#### **Connect With Us!**



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