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

• 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
  o Tucson Village Farm (partnership)
  o Cooper Center for Environmental Learning (partnership)
  o 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** –
  - Reduces waste
  - Prevents plant disease
  - Improves nutrition
  - Retains soil moisture
  - 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
Tumbler System: Materials

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

If your tumbler isn't producing compost:
• 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
<table>
<thead>
<tr>
<th>Date</th>
<th>Temp.</th>
<th>Air Temp.</th>
<th>Moisture</th>
<th>Water Added</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/25/2024</td>
<td>75°</td>
<td>85°</td>
<td>Yes</td>
<td>No</td>
<td>Compost moist but not dripping, no water added. Turned x10 times.</td>
</tr>
<tr>
<td>2/27/2024</td>
<td>78°</td>
<td>82°</td>
<td>No</td>
<td>Yes</td>
<td>Interior dry. Added one watering can. Turned x10 times.</td>
</tr>
<tr>
<td>3/1/2024</td>
<td>85°</td>
<td>81°</td>
<td>Yes</td>
<td>No</td>
<td>Still moist from last watering. Temp increasing. Turned x10 times.</td>
</tr>
</tbody>
</table>
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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- Community Garden
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Fill out our Outreach & Education Interest Form!