

School Composting plan for Cien Aguas International school:

Components –

- **On-going education**
- **Build in sustainability**
- **Multi-faceted & multi-year:**
 - **Year 1:** vermiculture, with Soilutions picking up the remainder
 - **Year 2:** traditional composting (both hot-batch and cold?), and ‘farm out’ what we can’t handle (families with chickens &/or compost piles, farmers with pigs and/or compost, etc.)
 - **Long-term, once the school is in a permanent facility:**
 - All paper, cardboard and food, kitchen and garden ‘waste’ are composted on-site
 - Compost is used for our school garden, which grows food for school lunches and snacks
 - We use a variety of systems to do this
 - Student, family and community education is an integral part of the project, and we donate or sell any extra humus or worms to interested parties
 - We serve as a demonstration project and offer support (through students) to other interested schools, community groups, etc.

Year 1:

- **Goals:**
 1. **Education:** By the end of the year, all children have an understanding of the process of worm composting (right now, ‘compost’ means cafeteria scraps to them, neither a process nor the finished product of worm castings or humus)
 - **Presentations** in each interested classroom (coordinate with classroom teachers to do this either at the beginning of the year or during a relevant curricular unit)
 - **Guided monitoring of worm & compost cycle** – also in collaboration with classroom teachers
 - **‘demonstration systems,’** Worm Factory 360 & homemade worm bins that are more
 2. **Buy-in:** Have enough students interested in making this happen that we can sustain this with limited teacher and parent guidance
 3. **Process and product:**
 - **Worm buckets in all interested classrooms,** to be filled with some office paper and all classroom Kleenex, left-over food from classroom snacks (except citrus!) and (non-chemically-saturated) paper towels
 - **Student monitors (add this to the tasks of the current ‘energy stars,’ 2 per classroom?)** to check on the worm buckets every week, maintain their moistness, and change them out ... once a month?
 - **1-2 large patio bench bins to handle ‘overflow’ and finalize composting**
 - **Once a month, harvest castings using ‘harvester’** built on Fred Landavazo’s model from Sandía High School to separate worms, castings and unfinished pieces of paper, cardboard, etc.
 - **Castings will be:**
 - **Used in school garden**
 - **Used on any indoor plants at school**
 - **Sold to families** (probably at Fred’s suggested rate of \$3/coffee can)

Issues, barriers, worries:

1. **Barriers to an effective system:**

- a. **Everyone** has to know about it – if administrative and janitorial staff, for example, are not educated about the process, we will probably waste a lot of paper that is just thrown out, and they can potentially harm the worms
- b. **Buy-in:** this is done through education and demonstration, as well as asking about barriers and addressing them
- c. **Feasibility and sustainability:** As much as possible, this has to be integrated with systems we already have (recycling bins in each classroom, collected once a week by the 'energy stars,' for example) and with our curriculum, and after the initial greater time expended this year, run largely by students and coordinated with particular curricular units

2. Issues

- a. **Paper plates:** this has been a barrier to establishing an in-house composting system, as we have hundreds of paper plates generated at lunch every day –
 - i. these take so long to break down that they are a problem for traditional composting and have been one reason that we continue to rely on Soilutions
 - ii. worm composting, especially on Fred Landavazo's model that focuses on paper and cardboard rather than food scraps, is an ideal approach for this
 - iii. we will have to scale up to accommodate all of these plates, so a goal of the first year will be breeding enough worms, building bins, and establishing processes to handle all the paper plates
- b. **Smell and pests**
 - i. Again, by starting with worm composting and composting primarily paper products, we hope to minimize any smell. The bucket system makes the composting inaccessible to cockroaches and mice, and hopefully by burying any food waste (only from classroom snacks, not from cafeteria waste), flies, fruit flies, etc. will not be attracted
 - ii. The large-scale patio bench bin will need to be portable (it will probably need to be kept inside from November through February), and if it's on rollers that makes it less accessible to cockroaches and mice
- c. **Maintenance and scale**
 - i. We will keep teachers and students educated about how we have to scale up over the year, but that we will not have the capacity at first to compost all paper waste, not even all used Kleenex in every classroom! The simplicity is that once a bucket is full, classrooms will revert to using the recycling and trash bins that they already have