GARDEN & SUSTAINABILITY INITIATIVES

Project Pono
University Laboratory School

(You might know us as UH Lab, but that’s not our name either! We are: The Education Laboratory: A Hawaii New Century Public Charter School)
What is...

PROJECT PONO?
Project Pono

- environmental stewardship and service-learning program
  - community-based, community-driven projects
  - caring for 'āina, island cultures, global resources
  - conservation and restoration of land and culture
- student-driven leadership class, create community programs
  - high school students create and facilitate service-learning partnerships, and take action through community projects on and off campus
    - garden projects
    - recycling programs
    - cultural and environmental restoration

What is pono?
keeping things beautiful and fair ~ maintaining balance ~ doing what’s right
What is.....

A SCHOOL PEACE GARDEN?
Hawaii School Peace Gardens

- Part of the International School Peace Garden network
  - Founded by Dame Julia Morton-Marr, 1/1000 Women of Peace nominated for the 2005 Nobel Peace Prize
  - Educated 3,500 schools in 34 countries on aspects of peace, justice and environment so far

- Hawaii School Peace Garden, project of Phi Delta Kappa Hawaiʻi
  - Among about a dozen other HSPG schools in Hawaiʻi
  - Not just a Peace Garden at ULS:
    - Physically connects two gardens on campus, the Elementary and Secondary schools with a Peace Path
ULS Gardens

- Elementary Learning Landscape:
  - Butterfly/Pollenator garden
  - Sustainable/Organic
  - Aquaponics

- ULS Courtyard Garden
  - Edible Landscaping
  - Native, Canoe, and Laʻau Lapaʻau species
  - Aquaponics
  - Food Sovereignty
  - Heritage and History of ULS

**Difficulties:**
- ✓ constraints on resources – space, time, money, people, caring
- ✓ high student traffic in HS garden
- ✓ continuous need to educate others, prevent damage and theft in garden
What is AQUAPONICS?
Aquaponics System

- Hydroponics and Aquaculture to produce food
- Hydroponics - raising plants in water
- Aquaculture - raising fish, which provides nutrients for plants in a recirculating system

ULS Project Pono's Systems

- Organisms
  - Aquatic animals - talapia
  - Produce - bak choy, kalo, lettuce, tomato, onion, eggplant
  - Laʻau Lapaʻau – popolo berry, olena

- Promote Food Sovereignty and Knowledge
  - Food & Family Nights
    - Educate others about sustainable agriculture, ideas on how grow your own (big or small) garden
  - ʻAina Hoʻola food sovereignty workshop
    - Host students and community members from other schools and organizations
    - Teach participants to harvest, replant, and prepare their own foods

**Difficulties:**
- ✔ System is plugged into the grid – uses electricity constantly
- ✔ UH power outages kill our pump – have to replace or fix
- ✔ New practice, many unknowns: pipe design, water flow, virus infections, growing media, plant types, etc
- ✔ Getting others to see that they can do it too
- ✔ People steal our stuff
What is....

LUNCH WASTE RECYCLING?

Recycle Food. It’s Easy To Do.

Lunch Waste Recycling Program

- Resourceful solution to food that was being wasted at ULS
  - reduce amount of trash put in dumpster
  - create mulch and compost
  - help keep cafeteria cleaner

- Sorting of lunch wastes
  - starch/meat
  - fruits/veggies
  - milk (to dump down sinks)
  - milk cartons (to recycle for projects)
  - napkins and other paper goods
  - non-paper plates/forks/other trash

Difficulties:
- Hard to keep up with – lots of wastes
- Others not willing to sort or help out

Images from:
- http://media.oregonlive.com/environment_impact/photo/ecoschools1.jpg-0430d5f7b8c1b242.jpg
What is VERMICOMPOSTING? BSFL?
Vermicomposting

- Helps to recycle resources at ULS
  - Use for the shredded paper from the school office
  - Part of the Lunch Waste Recycling Program – fruits/veggies
  - Raise worms and other decomposers to help produce high quality compost

BSFL Harvesting

- Another interesting way to recycle food
  - BSFL = Black Soldier Fly Larvae
    - non-diseased flies
    - adults have no mouths-no regurgitation or biting
    - larvae is high fat and protein, can be used to feed fish
  - Part of the Lunch Waste Recycling – meat/bread

Difficulties

- hard to upkeep, especially if other people don’t sort it right
- People avoid disposing in the right way, brought on filth flies
- Sorting out other people’s food can be really gross
- When the system crashes, it is PUTRID.
What is.....

BOTANICAL BIOGRAPHIES?

University Laboratory School: ULS
Botanical Biographies

- Identifying plants - beyond scientific or Hawaiian name
  - Where it originated from (what garden, person, wahi pana)
  - What family or group introduced the plant to ULS
  - History and Lineage define us – that knowledge is stored in our plants, and should be shared throughout ULS community

- Relationships
  - Dr Krause – avocado, wauke
  - Kahana – kalo, hoio, ʻuala
  - Hui Ku Maoli Ola – naio, aweoweo, paʻu o Hiʻiaka
  - Governor’s Garden – tomato, lettuce, herbs

Difficulties
- Uninformed others trample, damage, or steal from us
- Some history is lost or inconsistent, no record to go to
October 10, 2010

- ULS ‘Ohana – students, family, friends, alums - join together in campus beautification and improvements
- Courtyard Garden “flipped”
  - Everything pulled to reorganize and clean up
  - planting of donated plants
  - laying of stone walkway
  - weed pulling
- Accomplishments
  - school storage organized
  - classrooms cleaned out
  - re-painting of school's Multi-Purpose Building
  - ULS ohana reconnected

www.youtube.com/user/ulsmedia#p/u/12/VrbXAWrgX6U
(video courtesy of ULS Multi Media class)
What is......

FOOD SOVEREIGNTY?
Food Sovereignty

- Knowledge about your food:
  - Where is it from, who made it and how
  - What resources did it take to make it
  - Opportunity Costs?

- ULS Food & Family Night
  - Family-based education about gardening and eating
  - Guest speakers, food from our gardens, prepared by students

- Environmental Justice Issue
  - Sustainable practices in food consumption
  - Good, nutritious, culturally-important food is a basic human right
  - Give It Fresh Today (V. Chau) collects produce donations for homeless shelter meal service

http://www.facebook.com/media/set/?set=a.222715947746297.64288.221808761170349
What are other forms of Project Pono COMMUNITY OUTREACH?
Partnerships with Blue Planet

- Blue Planet Foundation
  - local non-profit that promotes local, clean, renewable energy

- ULS participated in the CFL-exchange fundraiser and clean energy promotion
  - 1,000 CFLs given = $0.40 for each bulb exchanged
  - Change incandescent bulbs for CFLs – use less energy, last longer, lower price to consumer and to environment
  - we incorporated a spirit points competition between grades (5 spirit points per bulb)

- Blue Line Project – emphasize sea-level rise in HI
  - 350 campaign – reduce carbon emissions worldwide to 350 ppm
  - Draw a line around the island to show result of 1-m sea-level rise
    - ULS community area – Mo‘ili‘ili near King and McCully
Recycle-A-Thon: Sustainability & Recycling

- Student-dreamt, student-designed, student-driven
- Funded by grants from Youth Service Hawaii, Sustainable COE, ULS Alumni Association, ULS Booster Club, Down to Earth
- Community wide event
  - spread public awareness of recycling, sustainability and peace
- Local Recyclers come together to offer services
  - printers
  - electronics
  - Hi-5
  - clothes
  - cooking oil
- Site license for screening of sustainable movies
- Activities and Entertainment focused on learning
What are our FUNDING SOURCES?
Funding Sources

Students Apply for or Pursue:

- Grants
  - Youth Service Hawaii/Starbucks Foundation
  - ULS Alumni Association/ULS Booster Club
- Donations
  - Sustainable COE, Down to Earth, Whole Foods, Nalo Farms, Vapur
- Discounts or other services
  - ‘Umeke Market, Down to Earth, Kokua Market, Hawaii Farm Bureau, Makiki Farmers Market
- Foundation/Non-Profit Projects
  - Blue Planet Foundation – CFL drive
  - Matson’s Ka Ipu ‘Aina Program
  - Community grants – Wind/Leeward, Youth, Peace, Food, Garden, etc.
  - Aloha ‘Aina Earth Day Recycling/Hi-5 Blue Bin Program

Difficulties

- ULS and/or Project Pono are not 501c3s (we’re a class of 20-25 students)
- We’re a class of 20-25 students! It’s hard to keep up sometimes.
- We’re new to this – we are just heading into the 3rd year of our existence
Want to reach us?

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