**"Every Classroom a Green Classroom"**
**Green Classroom Profile: *Cori Altman***
*Teacher Leadership Institute for Sustainability 2022-2023*

## TEACHER LEADER BIO: *Cori Altman*

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| *I am an outdoor enthusiast and have been taking students to formal outdoor science camps locally and in the Sierra as well as self-organized snow and camping trips around the state. From raccoons in Big Basin stealing hoarded candy out of students' backpacks, to dolphins off the coast of Catalina, young people have a need to experience nature. They can read and view videos in the classroom but experiential learning is transformative. The quintessential relationship of immersion to understanding the natural world is unquantifiable.* |  |

## BACKGROUND AND CONTEXT

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| **Class(es)** | # of student impacted by this project: 24<br>Grade level(s): 9th<br>Content area(s) of focus for this project: English<br>Student quote: | |
| **School Site** | Pajaro Valley HIgh School | |
| **School Demographics** | Grades served:9-12<br># students: 1600<br>% English learners: 25.1%<br>% qualifying for free and reduced price meals: 80% | |
| **District** | PVUSD | |
| **District Demographics** | Grades served: 9-12<br># students: 18,875<br>% English learners: 38.6%<br>% qualifying for free and reduced price meals: 78.1% | |
| **General Vision/Mission of School and/or district** | We strive to prepare all students to become lifelong learners and responsible citizens to meet the challenges of the future. In partnership with families and our school community, our goal is to create relevant learning opportunities - both inside and outside the classroom- that help students develop the knowledge, critical thinking skills, and the character necessary to support this mission. We strive to present opportunities for all students to recognize the potential they hold to be advocates for justice and agents of social change. | |

## 1) ORIGINAL GOALS AND INTENTIONS

| What originally drew you to this program? |
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| I was excited to find new ways to reach students and get them to understand their attitudes toward the planet are pertinent, even in their first year of high school. Many do not know that plastic water bottles are a problem. Many of these students have learned that the only way to drink water is from a plastic bottle. They will not drink tap water and the school has only two filtered refill stations. |

| Share your vision for your Green Classroom. How has this program affected this vision? |
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| Students need to know the challenges going forward in order to understand that they can contribute to scaling down the speed at which global warming is progressing and to find hope in the part they play in this shift. Introducing them to nature, and educating them on their roles, and giving them the tools to take action as responsible stakeholders are the best ways that I can contribute. |

## 2) KNOWLEDGE AND SKILL BUILDING

| A critical part of this program is building knowledge and skills related to Sustainable Schools. Examples include: Environmental Literacy & Sustainability Frameworks; Environmental Identity; Building student engagement through Campus, Curriculum, Community and Culture efforts; Continuum of Environmental Literacy Integration. **Where are you experiencing the most growth in your knowledge and skills related to being a teacher leader for sustainability***?* |
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| I have found that so much of what I have embraced growing up as I did with respect for the planet, is non-existent in today's students. The overall level of awareness in the global struggle is not on my students radar. It seems that we are living it and cannot see the bigger picture over the personal challenges. I want to find the hook to ignite interest in a need for change. Finding ways to reinforce the need for change and give students ownership of the solution is the task I focus on. My growth is mainly in establishing the appropriate outreach which is a balance of education and hands-on projects. We started with nature walks and an attempt to establish an outdoor reading space. The way was blocked by stakeholders who wouldn't entertain the possible problems with maintenance of an outdoor classroom. We were able to get a small portion of space in which to set up a vertical grow system made mostly with repurposed materials. Students got to take ownership of the building and maintenance of a fresh food source in a very small area of land. |

## 3) ACTION - COMMUNITY IMPACT PROJECT OVERVIEW

| Summary of project purpose and overall goals. |
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**Summary of Project Purpose and Goals for student learning:** Teach students the importance of their actions and attitudes, the small things they can do to lessen the escalation of climate change. The power of repurposing and reusing what would otherwise end up clogging a landfill further supports students' individual impacts. Actions have consequences, so make good choices. From food sources to transportation, know that you vote with your dollars and that demand steers supply. Maybe there is another use for things we throw away.

**How does this project connect to your Green Classroom vision and the broader mission and vision of the school/district?**
This puts stakeholders on alert and is a starting point to changing their attitudes about what it takes to support students' awareness of a more climate literate campus. Ours is a green campus in theory and with stakeholders working together those goals can be realized.

**What specific learning intention(s) did you share with your students?** How what you buy drives what is available. Plastic bottles sold in campus vending machines are a primary target of discussion. If students don't support the products in the vending machines, the vendors will adjust those products in order to make the sale.
Food can be grown in small spaces with little cost.

**How did this project serve your pre-existing instructional goals?** It gives students agency to be the change they seek. Whether it is to eat more healthy foods or reduce plastics, they are stakeholders and can drive change one decision at a time.

## 4) ACTION - IMPLEMENTATION STORY

Describe how implementation of your community impact project went. *If your project has not finished yet, describe how the start has gone, and how you anticipate it completing.*

**General story of implementation**: We repurposed: an empty gallon water bottle, a length of 1"pvc pipe, an old t-shirt, cardboard boxes, compost, old feed bags and baling twine.
Using duct tape and heavy mil black plastic we made a tall cylinder using cardboard and old feed sacks as a base. After layering compost we set the plastic bottle which we had drilled with holes and pulled lengths of old t-shirt for wicking, then attached to the pvc pipe, also drilled with holes. Centered, we filled around our waterer with compost. Having started sprouts and kale indoors, we hoped to transplant these into our vertical planter.
Since we could not set up a permanent outdoor space, we got scraps of outdoor turf and made sitting pads for reading outdoors behind the school on a ridge overlooking Harkins Slough.

**Challenges and obstacles and how you overcame them**: The cylinder was listing and needed support with wood scraps and paving stones from the garden area. It also required restraints for stability which is where the baling twine was used.
Our seed starters dehydrated during spring break so we started new ones. The setback sent me to the garden center to buy 6-packs of kale and lettuce for the cylinder.
Outdoor seating pads will be donated to add to the ones we made from the scraps of plastic grass turf.

**Successes and what contributed to success**: Students were resourceful and very good with the cordless drill, shredding the t-shirt and threading it back into the bottle. They also enjoyed observing the progress of the seedlings and were surprised at how quickly they sprouted. It also surprised them how the seeds flourished with only water. The duct-tape fix and problem solving our stability problem engaged their inner engineer. We didn't give up despite the inhospitable weather challenges.
We also grew trays of edible spicy sprouts which begs for a pizza party since they are amazing on pizza!

**Next Steps for this project**:
Get the 6-packs into the vertical planter, determining through trial which plant thrives best in the sunlight it gets. There is a generous amount of room for our plants and figuring out how to get a few harvests and how to stagger growth cycles will be a lesson in documentation. The older plants will be spread out and younger seedlings interspersed as they get big enough to transplant.

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| | **Optional: Insert picture here** |

## 5) ACTION - METRICS AND OUTCOMES

- **Overall Assessment:** How would you characterize the success of your project?
- **Ecological Benefit:** If possible, how were you able to measure the ecological benefit (reduced GHG emissions, reduced waste, increased biodiversity, etc.) and what were the outcomes?
- **Community & Culture Benefit:** If possible, how were you able to measure impacts on classroom culture and community (for example, students' sense of connection to nature, stewardship) and what were the outcomes?
- **Student and Staff Learning:** *Reflect on evidence of student learning from this project, and how this project shifted your classroom to further integrate environmental literacy.*

**Overall Assessment:** Moderately successful.

**Ecological Benefit:** A longer study will enable us to quantify our actions.

**Culture & Community Benefit:** This action asks students to look at what they toss in a new light.

| **Educational Benefit:** |
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| *Problem solving skills and persistence, as well as an introduction to nature in our own backyards.* |

## 6) REFLECTION AND COMMITMENTS

| What is your enduring understanding about teaching for a sustainable future? And what are your commitments for next year and beyond for this important work? |
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| **Reflection**: Taking students out of the usual is good for their problem solving skills and gives standard English skills a purpose.<br><br>**Commitments**: I will expand my climate literacy to more classes next year. |