



“Every Classroom a Green Classroom”
Green Classroom Profile: *Bonny Doon Elementary*
K-6th Grade - Benefits of Native Plants


Teacher Leadership Institute for Sustainability 2023-2024

TEACHER LEADER BIO: *Jordan Arp*

I am teaching K-6 science as well as co teaching 2nd grade at Bonny Doon Elementary. I graduated from UCSC in 2020 and have been teaching 2nd grade for 3 years. This is my first year teaching K-6 science. I am deeply grateful for the opportunity to work with students outside in our Life Lab. I love creating meaningful outdoor learning opportunities for students. I am someone who appreciates nature, art, reading, being active, and spending time with friends and family!



BACKGROUND AND CONTEXT

Class(es)	# of student impacted by this project: 96 Grade level(s): K-6 Content area(s) of focus for this project: Science Student quote: “I LOVE bees! They’re helping the plants!” - 2nd grader	
School Site	Bonny Doon Union Elementary	
School Demographics	School: K-6 School Total Enrollment: 115 % English learners: 4% % qualifying for free and reduced price meals: 13%	

District	Bonny Doon Union Elementary School District: K-6 District Total Enrollment: 115 % English learners: 4% % qualifying for free and reduced price meals: 13%	
General Vision/Mission of School and/or district	<p>“The Bonny Doon School Community will create a learning environment that challenges and supports students to achieve their highest potential. We need to acknowledge all aspects of a child's well-being to provide a successful learning experience.”</p>	

1) ORIGINAL GOALS AND INTENTIONS

What originally drew you to this program?

I was originally drawn to this program because I value making classroom learning meaningful. Teaching students about pressing real world issues and how to become proactive problem solvers feels incredibly valuable. I also wanted to better myself as an educator by learning more about the best practices surrounding teaching environmental literacy and gain access to community partners to better serve my students.

Share your vision for your Green Classroom. How has this program affected this vision?

My vision for a green classroom is one in which students have the opportunity to appreciate the beauty of the natural world, where learning takes place indoors and outdoors, and students learn the best practices surrounding taking care of the environment. This program has given me the resources and support to better support my vision of a Green Classroom.

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?**

I experienced the most growth in my knowledge and skills related to being a teacher leader for sustainability through building student engagement through Campus, Culture, Curriculum, and Community efforts. By integrating meaningful outdoor learning experiences students were able to deepen their curiosity and appreciation of nature, while also taking care of our school campus. Planting a pollinator garden helped students feel like they were

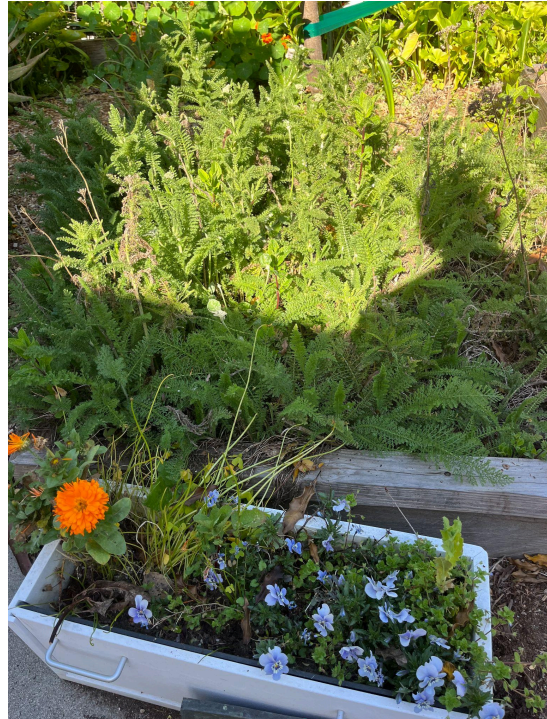
contributing to the health of the local ecosystem and contributing to the beauty of our school campus. I will continue to incorporate outdoor learning projects for my students because the outcomes were so positive in our classroom in terms of student engagement.

3) ACTION - COMMUNITY IMPACT PROJECT OVERVIEW

Provide a brief summary of the purpose of your project and overall goals.

Summary of Project Purpose and Goals for student learning:

The purpose of the project was to get students outside and connect with the environment through nature journaling, planting a native garden box in our Life Lab, exploring local habitats and learning about local ecology. I wanted students to learn about the benefits of planting native and pollinator plants. I wanted them to be curious observers of the world around them, and to notice the beauty of the natural world.



How does this project connect to your Green Classroom vision and the broader mission and vision of the school/district?

This project connected to my vision of a Green Classroom and the broader mission of the school by allowing students to be guided by their own curiosity and take initiative to care for the environment around them.

What specific learning intention(s) did you share with your students?

Students were told that we would be studying the plant life cycle, pollination, and the benefits of growing native plants.

How did this project serve your pre-existing instructional goals?

Part of the second grade NGSS standards state that students should have an understanding that “plants depend on animals for pollination or to move their seeds around” (2-LS2-2) and The shape and stability of structures of natural and designed objects are related to their function(s). (2-LS2-2)

Students learned the structures and functions of plant parts and the plant life cycle through FOSS and Mystery Science, then later having them create detailed observational drawings of plants in our garden was useful in cementing new learning. Another pre-existing instructional goal focuses on insects: their life cycle, their habitats, body parts, etc.

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:

The story of the project implementation began by starting the FOSS Plants and Insects Unit in our second grade classroom. We learned the structures and functions of plant parts, how insects pollinate plants, how animals and wind move plant seeds, the life cycle of a plant, etc.

Students were taught the importance of biodiversity and of native plants. We spent time in our Life Lab garden creating a native plant box. We also created observational drawings of plants in our garden - labeling the parts of the plant, writing down any questions that arose during our observational drawing.

Our second grade class also had the opportunity to learn about local ecology on our field trip to Henry Cowell State Park and Natural Bridges Monarch Grove.

The action project with the second grade class was an overall success. The outdoor learning experiences helped reinforce the learning that happened inside the classroom, while also making it more hands-on, engaging, and fun. Students adore being outside and getting to enhance the beauty of the school garden, while also getting to help the native insects and animals around them.

Through the TLIS community partnership I was able to connect with Farnaz Fatemi, the Santa Cruz Poet Laureate. She orchestrated a beautiful poetry workshop with our 6th graders that focused on appreciating the beauty in Bonny Doon while also creating an outlet to release any frustrations around the climate crisis.

Challenges and obstacles and how you overcame them:

One challenge I faced was having each student actively involved in the planting process. With 19 students and one adult in the garden, it can be difficult to effectively manage students who are so excited to be outside (understandably).

Successes and what contributed to success:

Working with small groups helped this process go more smoothly.

Next Steps for this project:

I hope to continue to create and maintain beautiful spaces in our garden with various native plants.





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.*

For the three sections below, include how you tried to measure impacts and what evidence of outcomes you found.

Ecological Benefit:

Although our class did not measure increased biodiversity after planting our native planter boxes, I think it would have been a very engaging and meaningful learning experience to collect that data before and after we added more native plants to the garden.

Community & Culture Benefit:

Our second grade community benefited from feeling unified in the desire to create a more beautiful garden and wanting to help create habitats for native insects and animals. Students flourish when they are able to learn about what they love and what they're innately curious about, so being able to spend time in the Life Lab garden and on our various field trips to state parks was greatly beneficial to our classroom morale. Evidence of student engagement: "I LOVE bees! They're helping the plants!" - 2nd grader.

Educational Benefit:

The outdoor learning experiences that followed our Plants and Insects unit helped students create a deeper connection to the environment around them, and tapped into their natural curiosity for and appreciation of nature.

Impact on Students' Sense of Connection to the Environment (results of Children's Environmental Attitude Survey and any other evidence of impact):

Most students showed an increase in their appreciation and interest in local plants, insects, and how to take care of their local ecosystem. Students particularly loved learning about bees and were so excited to plant flowers that the bees could visit.

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?

Reflection:

Now more than ever teachers have a responsibility to our students to develop environmental literacy and sustainability skills. We are at a crucial time where we must make a change towards a more green future. I believe a brighter future for our planet is possible through a commitment to connecting students to nature and giving them the resources to nurture curiosity and problem solving skills, as well as a strong background in science.

Commitments:

I will continue to expose my students to meaningful outdoor learning experiences. I will inform my students that the choices they make matters, that their voices will be heard, that they are agents of change. I will center my future lessons and projects around the desire to nourish a love of nature in my students.