

Guadalupe Elementary School

Outdoor Learning Areas

LEARNING THROUGH STEAM EXPERIENCES IN A
LIVING CLASSROOM

Reaching Youth's Full Potential through Nature

When we focus on integrating **youth development** and **nature connections**, youth can reach their full potential.



THANK YOU!!

JASON HULL for being a visionary and making the space come alive with his expertly created design plans that led the district to approve the spaces!

PARENTS for generously donating to the school and making these new spaces possible. Thank you for trusting the process. Our children will be receiving a STEAM-based education in and out of the traditional classroom walls with engaging project-based learning!

MR. JONES for spurring this idea and bringing such a cutting-edge approach in education to our school and doing it in a way that makes it child-centered and engaging for all learners!

TEACHERS for supporting the new spaces and giving their veteran advice on how to utilize the space and make it actually usable for ALL learners! You are the rockstars that will help make these areas reach their full potential. The children will be so excited!

THE BOARD AND THE DISTRICT for helping voice their support of the areas and being aligned in the process to help us reach our goals!

DANIELLE VIGIL for helping to maintain the garden.

HELPERS! Thank you to anyone that takes time out of their day to make this project progress further. Thank you for all of the donations! Thank you for your time and labor! It will take a village!

THANK YOU! THANK YOU! THANK YOU!!

Teacher Perspective



**Social
Studies
Standards**

**NEXT GENERATION
SCIENCE STANDARDS**

OUTDOOR LEARNING AREAS

**Environmental
Principles and
Concepts**

**Socio-Emotional
Health Benefits**

**Garden-Science
Connections**

**Common Core
Standards**



California's Environmental Principles and Concepts (EP&Cs) highlight the deep relationship between humans and the natural world. The EP&Cs are “big ideas” intended to inform standards-based instruction and fuel student inquiry. Teachers can support environmental literacy by helping students to understand and apply the EP&Cs across academic disciplines and in the real world.



CALIFORNIA'S ENVIRONMENTAL PRINCIPLES & CONCEPTS



Did You Know?

The EP&Cs are included in the new CA science, history-social science, and health science frameworks!

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The EEI Curriculum

The EP&Cs are the foundation of the environmental content taught in the model EEI Curriculum. Each EEI Curriculum unit supports at least one EP&C. In the EEI Curriculum, your students' understanding of the EP&Cs builds over the course of their academic careers, strengthening their environmental literacy.

PRINCIPLE 1

People Depend on Natural Systems



The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services.

Concept A. The goods produced by natural systems are essential to human life and to the functioning of our economies and cultures.

Concept B. The ecosystem services provided by natural systems are essential to human life and to the functioning of our economies and cultures.

Concept C. That the quality, quantity, and reliability of the goods and ecosystem services provided by natural systems are directly affected by the health of those systems.

PRINCIPLE 2

People Influence Natural Systems



The long-term functioning and health of terrestrial, freshwater, coastal, and marine ecosystems are influenced by their relationships with human societies.

Concept A. Direct and indirect changes to natural systems due to the growth of human populations and their consumption rates influence the geographic extent, composition, biological diversity, and viability of natural systems.

Concept B. Methods used to extract, harvest, transport, and consume natural resources influence the geographic extent, composition, biological diversity, and viability of natural systems.

Concept C. The expansion and operation of human communities influences the geographic extent, composition, biological diversity, and viability of natural systems.

Concept D. The legal, economic, and political systems that govern the use and management of natural systems directly influence the geographic extent, composition, biological diversity, and viability of natural systems.

PRINCIPLE 3

Natural Systems Change in Ways that People Benefit From and Can Influence



Natural systems proceed through cycles that humans depend upon, benefit from, and can alter.

Concept A. Natural systems proceed through cycles and processes that are required for their functioning.

Concept B. Human practices depend upon and benefit from the cycles and processes that operate within natural systems.

Concept C. Human practices can alter the cycles and processes that operate within natural systems.

PRINCIPLE 4

There are no Permanent or Impermeable Boundaries that Prevent Matter from Flowing Between Systems



The exchange of matter between natural systems and human societies affects the long-term functioning of both.

Concept A. The effects of human activities on natural systems are directly related to the quantities of resources consumed and to the quantity and characteristics of the resulting byproducts.

Concept B. The byproducts of human activity are not readily prevented from entering natural systems and may be beneficial, neutral, or detrimental in their effect.

Concept C. The capacity of natural systems to adjust to human-caused alterations depends on the nature of the system as well as the scope, scale, and duration of the activity and the nature of its byproducts.

PRINCIPLE 5

Decisions Affecting Resources and Natural Systems are Complex and Involve Many Factors



Decisions affecting resources and natural systems are based on a wide range of considerations and decision-making processes.

Concept A. There is a spectrum of what is considered in making decisions about resources and natural systems and how those factors influence decisions.

Concept B. The process of making decisions about resources and natural systems, and how the assessment of social, economic, political, and environmental factors has changed over time.

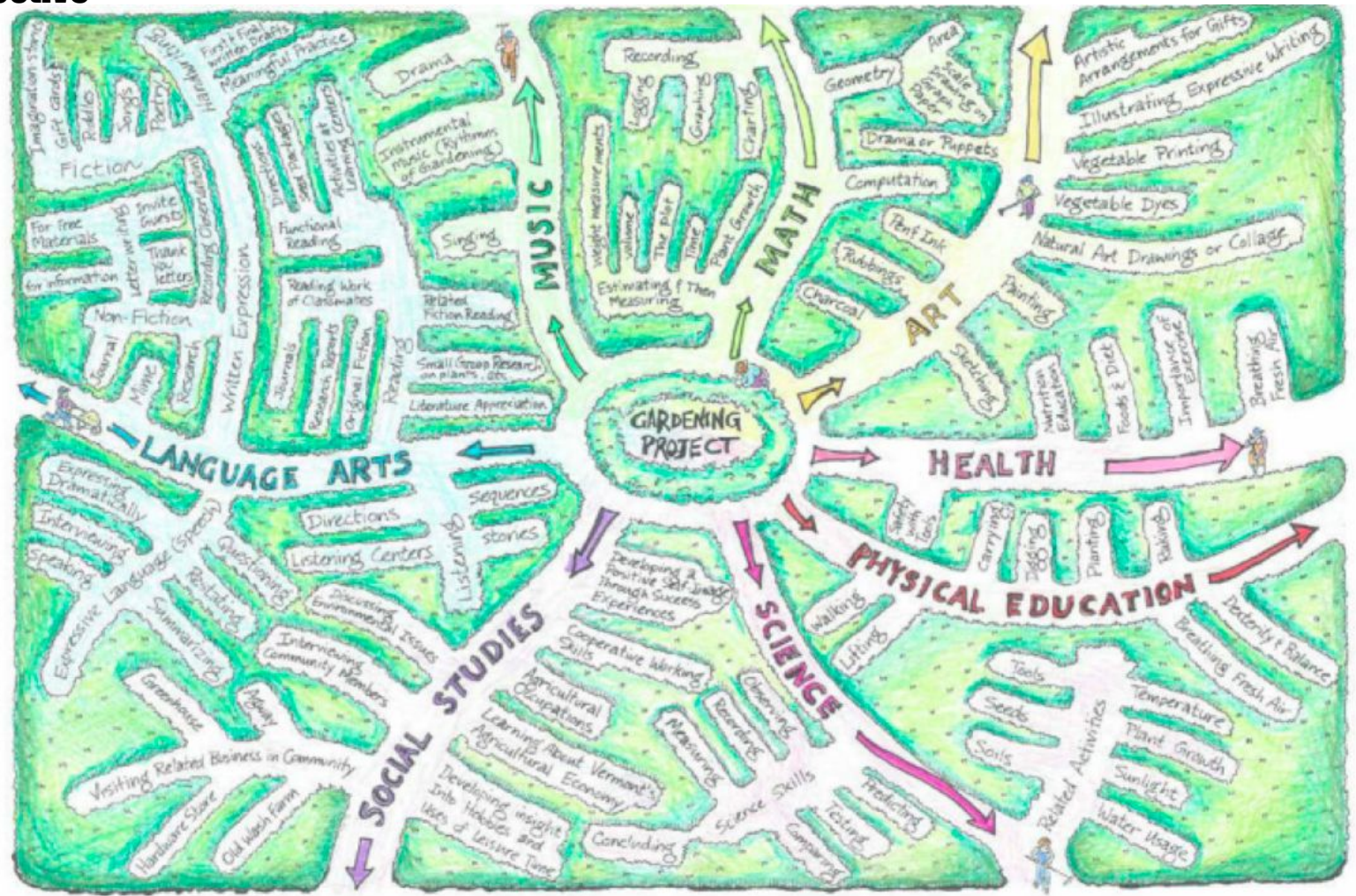
www.californiaeei.org/epc/

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The Environmental Principles and Concepts need to be incorporated in all future state adopted texts and instructional materials. Therefore, in 2016, the EP&Cs were integrated into the new California history - social science standards, new science standards and health frameworks (rolled out by 2019). So subsequent state adoption textbooks would integrate EP&Cs. Furthermore, the Common Core 3 State Standards for state of California were to equip students with the right analytical and problem solving tools to problem solve the future environmental problems.

<https://www.sccoe.org/isteam/Documents/Santa%20Clara%20County%20Office%20of%20Education%20Environmental%20Literacy%20Survey%20Report.pdf>

Parent Perspective



From Slow Food USA School Garden Guide
Adapted from www.life4lab.org/garden-pathways

Environmental Education is HERE to stay!

Roll out in 2022-2023

1. GHSC fund the OLA spaces and create the spaces outlined (Spring 2022)
 2. **ADD a standards-based Garden Curriculum** to the parent support programs (similar to Project Cornerstone, Ceramics and Art Vistas)
 3. A parent will **gather and coordinate resources for a garden-curriculum (with teacher input)** that is **focused on STEAM connections.**
- ***This program is **in addition to** what teachers are doing currently with the standards and initiatives given, **NOT in lieu of.** They run their own classrooms and curriculum but this space can help add to what they are doing.
4. **Roll out the garden-based curriculum** and use best practices to create engaging and project-based learning activities that are **taught in the highly equipped Outdoor Learning Areas.** The garden team will be engaging the parent community to partner up by helping with funding and volunteering your time for garden lessons.

OUTDOOR LEARNING AREA- UPPER/garden area (Added to the current space)

- Dig pit for all ages
- Three tiered trough with pump
- Sensory garden entrance with trellis
- Large mixing tubs for experiments
- In-ground Paint Easel 56"
- New garden beds
- Hanging Fence Easels
- Demonstration station (moveable tub with drying rack)
- Nature and potting center
- Class set of magnifying glasses
- Two higher magnification (magnifying) glasses
- Balance beam
- Teacher marker board with in-ground posts
- Sealant for wood items
- Mounted geoboards
- New picnic table
- Planter beds for sensory garden and pollinators
- Raised beds for sensory garden and edging for the area
- Soil for all needed areas
- Rocks for all needed projects
- Add landscape fabric to help with maintenance
- Sensory rain wheel
- Rain gauge
- Watering cans
- New gardening supplies
- Thermometer and hygrometer
- Drums for "Making thunder"
- Windsock for weather station
- Clipboards for an entire class
- Shed for Teacher curriculum extensions
- Mulberry tree in connection to pollinators
- Apple tree for multi-grade level studies
- Commercial grade child weighing scale for exploration
- Convex mirror for sensory experience
- Bench legs to go on donated redwood slabs for extra seating
- Old growth redwood slabs, stumps and half logs sealed
- Refurbish the garden and update the water lines
- Create sensory experience with plants and flowers
- Add bee house
- Add compost section
- Talking tubes

We need **YOU** and your **SKILLS** to pull this off!

List of **PROJECTS** for **UPPER/GARDEN** Area (**SIGN UP GENIUS** sent by email in morning for work **THIS SATURDAY/SUNDAY**)

1. Go to South Bay Materials with **your** truck and load black and white quartz $\frac{3}{8}$ " pebbles and return to school- **SATURDAY A.M. or before**
2. Put together a trellis and concrete it in- **SATURDAY**
3. Use your van/truck to go to Home Depot to pick up bricks and bring them back to school- **SATURDAY A.M. or before**
4. Go to South Bay Materials with a truck and bag cobblestones, then return to school with the bags- **SATURDAY A.M. or before**
5. Weed garden, pull back rocks and lay landscape fabric, then put rocks back- **SATURDAY**
6. Create base for shed-**SATURDAY**
7. Build balance beam (skill set possibly needed but still basic)-**SATURDAY**
8. Dig and install 6 fence posts (to attach 3 existing white fence panels)- **SATURDAY**
9. Create teacher markerboard platform by installing posts with concrete- **SATURDAY**
10. Lay weed barrier in sensory garden and lay rocks down- **SATURDAY**
11. Dig a hole for the dig pit- **SATURDAY**
12. Install bricks as border for sensory garden-**SUNDAY**
13. Add soil to garden beds- **SUNDAY**
14. Construct shed from boxed set with set directions- **SUNDAY**
15. Put rocks in the dig pit- **SUNDAY**

BONUS POINTSDOES ANYONE OWN AN ELECTRIC SHOVEL? OR POST HOLE DIGGER WE CAN BORROW?**

EMAIL if you have **any level of knowledge** of these types of projects and can **LEAD** a task

(Ashley) adhaenen@gmail.com

COMPLETION GOAL of Upper OLA/Garden:
April 22, 2022 (Earth Day!)

LOWER AREA (by primary playground)

- presented at next board meeting

NEED **EXPERTS** IN : (Upcoming in April and May)

- Concrete work
- Turf installation (maybe) or if you have access to very nice used turf this would be helpful
- Tile mosaic experience
 - Skill set?
- Experience creating concrete half wall?
- Does anyone know a connection to an Eagle Scout looking for a project?
- Connections at Valley Water or **Corporate sponsors** to see if boulders or materials could be donated to the lower space
- **Connections at local sign company**? Sponsor donation of signs?

EMAIL: **ASHLEY** adhaenen@gmail.com

TAKEAWAYS

1. Investment

We are gifting our children a space that will shape their perspective on environmental stewardship and will help create leaders that can pave the way in critical thinking and project-based learning in different environments!

2. Volunteer

LONG TERM success relies on parents investing in the **volunteerism** that is needed to bring this to our community

3. Donations

- I will send out a list of items that would benefit the space as the project progresses.

<https://www.signupgenius.com/go/5080445a5af2aa3fd0-upper>

Our budget can cover both areas if we roll up our sleeves and we lend a few hours!

THANK YOU!!

Be part of the Environmental Revolution!



<https://www.sccoe.org/isteam/Documents/Santa%20Clara%20County%20Office%20of%20Education%20Environmental%20Literacy%20Survey%20Report.pdf>

