Outdoor Learning Environments: An Opportunity to Incorporate Authentic Local Elements and to Enhance their Potential with Community–School Collaboration
Meet The Presenters

VICKI MOORE
FOUNDER & BOARD MEMBER
Vicki Moore is the Founder, former Executive Director, and now Board Member of Living Classroom, a garden-based education non-profit serving public schools in the South San Francisco Bay area.

BILL GOULD
ARCHITECT, FOUNDER
Founder of ARTiK Art & Architecture, has worked in the field of K-14 facility design for 28 years. Bill strives to create out-of-the-ordinary places to learn and play using an “Art in Architecture” approach to emphasize user participation and team collaboration, contributing to the realization of imaginative learning spaces.

A4LE 2018 Outdoor Learning Environments
WHY ARE GREEN SCHOOLYARDS SO IMPORTANT?

- Community Resources for Safe Outdoor Play
- Higher Academic Outcomes
- Improved Mental & Physical Health
- Connection to Nature
- Empowered and Connected School Communities
VALUE AND BENEFITS: PLACE-BASED EDUCATION

Theuerauf School Native Habitat Garden

The plants in this garden represent the native California landscape including chaparral, coastal sage scrub, woodland and grassland communities. Here students learn about ecology, habitats, botany, and Native American uses of plants. This garden is for the use and benefit of Theuerauf school students and teachers.

Jardín de Hábitat Nativo Escuela Theuerauf

Las plantas de este jardín representan el paisaje nativo de California incluyendo el chaparral, el matorral costero, el bosque y la pradera. Aquí los estudiantes aprenden sobre ecología, botánica, y el uso dado a las plantas por los Nativos Americanos. Este jardín es para el uso y beneficio de maestros y estudiantes de la escuela de Theuerauf.
HIGHER ACADEMIC OUTCOMES
MENTAL & PHYSICAL HEALTH

Mental Health plays a critical role in the cognitive, emotional, and social development of children and youth.
GREEN SCHOOLYARDS HELP KIDS FEEL:

**CALMER & LESS STRESSED**
Views of green landscapes from classroom windows helped high school students recover more quickly from stressful events.

**POSITIVE & RESTORED**
Forest schools enhanced positive and decreased negative emotions.

**RESILIENT**
Natural areas enhanced feelings of competence and increased supportive social relationships that help build resilience.
MENTAL & PHYSICAL HEALTH: Green Schoolyards can increase physical activity

Green schoolyards can promote physical activity by offering a variety of active play options that engage children of varying fitness levels, ages, and genders.

85% of educators and parents said green schoolyards support a wider range of play activities than other types of schoolyards.²

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 Variety in landscaping increases variety in active play.²

trees
logs
shrubs
rocks

running
jumping
climbing
lifting
MENTAL & PHYSICAL HEALTH:

Regular physical activity enhances well-being and attentiveness in the classroom

MEETING DIVERSE & CHANGING NEEDS

GREEN SCHOOLYARDS COMPLEMENT CONVENTIONAL PLAYGROUNDS WITH OPPORTUNITIES FOR LIGHT & MODERATE PHYSICAL ACTIVITY that are more appealing to some children.³⁴

GREEN SCHOOLYARDS CAN CONTRIBUTE TO GIRLS' PHYSICAL FITNESS ★★★★★

Physical activity decreases as children grow, especially for girls. Green schoolyards sustain activity as children age and preferences change.⁵⁻⁷
Learning where food comes from

Matching the native plant with the wildlife it attracts

Ethnobotany: Grinding Acorns from Native Oak Trees in School Garden like Native Americans Did
Learning where food comes from

Matching the native plant with the wildlife it attracts

ENVIRONMENTAL LITERACY

We are a part of nature, not apart from nature!
Green Schoolyards Action Agenda

VISION: All U.S. communities offer access to green schoolyards by 2050 to enhance children's healthy development, community well-being and positive environmental impacts.

www.childrenandnature.org
GREEN SCHOOLYARDS ACTION AGENDA GOALS

• Cross-sector leaders and partners support green schoolyards for the benefit of children, families and communities

• Communities value and promote green schoolyards as essential assets and infrastructure.

• A robust evidence base demonstrates the many benefits of green schoolyards.

• Sustainable funding supports development, stewardship and maintenance of green schoolyards

• Federal, state, local and school district policies support the equitable distribution, implementation, and use of green schoolyards
RESTORING OUR NATIVE ECOLOGY ONE SCHOOLYARD AT A TIME
RESTORING OUR NATIVE ECOLOGY

Paradigm Shift: Nature is Everywhere. Students Are a Part of Bringing Nature to the Schoolyard
RESTORING OUR NATIVE ECOLOGY

Native Habitat Gardens bring back native wildlife

Western Bluebird made a nest!
OUTDOOR LEARNING & COMMUNITY PARTNERSHIPS

• CASE STUDY: Theuerkauf Elementary

• LIVING CLASSROOM: Partnership with a successful, community-based non-profit

• OUTDOOR LEARNING

• ENVIRONMENTAL LITERACY

• CITIZEN SCIENCE IN HABITAT GARDENS AND LANDSCAPING
THEUERKAUF ELEMENTARY SCHOOL
THEUERKAUF ELEMENTARY SCHOOL – DRY CREEK BED & NATIVE GARDEN
THEUERKAUF ELEMENTARY SCHOOL – MASK MANDALA
ABOUT LIVING CLASSROOM

Full Service, garden-based education program provides curriculum and instruction, materials, garden design, installation and maintenance

Serve 29 schools in 4 school districts, grades T/K-8 in Santa Clara County

12 paid staff including professional credentialed teachers and other highly qualified staff. Current budget: $650,000

Docent training program to augment instructional staff

2018-19 school year: Serving 11,000 students, 1,600 lessons taught, average of 5 lessons per classroom. Students receive lessons for 6-9 years in a row.
THEUERKAUF ELEMENTARY OUTDOOR CLASSROOMS CREATED AND IN FULL USE
Kindergartners observing Monarch caterpillars on native milkweed
Edible Garden Thriving with Year Round Harvests for Farm to Lunch Program
THEUERKAUF NATIVE HABITAT GARDEN - WELL USED AND WELL LOVED!
LIVING CLASSROOM: PARTNERSHIP WITH A SUCCESSFUL, COMMUNITY-BASED NON-PROFIT
I can describe winter squash using adjectives.

<table>
<thead>
<tr>
<th>Winter Squash Variety</th>
<th>Shape</th>
<th>Texture</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acorn Squash</td>
<td>Ovalish like an acorn</td>
<td>Bumpy smooth with lines</td>
<td>Green/Orange</td>
</tr>
<tr>
<td>Peanut Squash</td>
<td>Oval</td>
<td>Smooth</td>
<td>Tan</td>
</tr>
<tr>
<td>Round Squash</td>
<td>Smooth</td>
<td>Some bumps</td>
<td>Yellow</td>
</tr>
<tr>
<td>Orange Squash</td>
<td>Smooth</td>
<td></td>
<td>Orange</td>
</tr>
</tbody>
</table>

LEARNING IN OUTDOOR LEARNING ENVIRONMENTS
Students Grow Organic Produce for School Lunch taste testings—
Kids try new fruits and veggies
CITIZEN SCIENCE IN HABITAT GARDENS AND LANDSCAPING

- iNaturalist (Flora and Fauna diversity observations)
- Western Bluebird Recovery Project (Audubon Society)
- The Great Sunflower Project (Pollinator observations)
- Nature’s Notebook (Phenology observations and Climate Change)
- Western Monarch Milkweed Mapper (Xerces Society)
• **PLACE BASED:** Learning that is rooted in what is local—the unique history, environment, culture, economy, literature, and art of a particular place.

• **PEDAGOGICAL/CURRICULAR:** Academic content and the art and science of teaching.

• **ECOLOGICAL:** The study of the relationships between living organisms and their environment.
PLACE BASED

- NATURAL CONNECTIONS
- CULTURAL CONTEXT
- HISTORICAL CONNECTIONS
- MATERIALS
- CASE STUDIES: Andrew P. Hill High School Courtyard Improvements, Hacienda Elementary Science & Environmental Magnet, Mountain View Child Care Center
DEFINING AN OUTDOOR LEARNING ENVIRONMENT
NATURAL CONNECTIONS
CULTURAL CONTEXT
HISTORICAL CONNECTIONS
PEDAGOGICAL/ CURRICULAR

- Integrating & Supporting Curriculum
- Outdoor Learning Environments
- Social/Academic Interaction
- Flexibility

Case Studies: Waldorf School of the Peninsula - Los Altos, Capuchino High School Fine & Digital Arts Classroom Building
OUTDOOR CLASSROOMS – INTEGRATE CURRICULUM
OUTDOOR CLASSROOMS
WALDORF SCHOOL OF THE PENINSULA, LOS ALTOS – BACKYARD/OUTDOOR CLASSROOM
ECOLOGICAL

- PHYSICAL + VISUAL CONNECTIONS
- ORGANIC FORMS
- CASE STUDIES: Ernesto Galarza Elementary School, Family Early Learning Center
MOUNTAIN VIEW CHILD CARE CENTER – INTERACTIVE PLAY
PHYSICAL + VISUAL CONNECTIONS
ERNESTO GALARZA ELEMENTARY SCHOOL – EVENT COURTYARD & KINDER PLAY AREA
FAMILY EARLY LEARNING CENTER – ROCK CIRCLE & EVENT COURTYARD WITH TRELLIS
ORGANIC FORMS
ANDREW HILL HIGH SCHOOL – BEFORE
ANDREW HILL HIGH SCHOOL – BEFORE
ANDREW HILL HIGH SCHOOL – CUT STEEL STAGE BACKDROP
ANDREW HILL HIGH SCHOOL – CUT STEEL STAGE BACKDROP
ANDREW HILL HIGH SCHOOL – CABLE WEAVE
ANDREW HILL HIGH SCHOOL – CABLE WEAVE
ANDREW HILL HIGH SCHOOL – CABLE WEAVE
ANDREW HILL HIGH SCHOOL – REDWOOD TREE RING
ANDREW HILL HIGH SCHOOL – CUT STEEL BARRIER & SEAT WALL
ANDREW HILL HIGH SCHOOL – OUTDOOR LEARNING PRIVACY PANELS
ANDREW HILL HIGH SCHOOL – OUTDOOR CLASSROOMS
ANDREW HILL HIGH SCHOOL
**WEBSITES:**
- The Edible Schoolyard Network ([http://edibleschoolyard.org](http://edibleschoolyard.org))
- Green Schoolyards America ([http://www.greenschoolyards.org](http://www.greenschoolyards.org))
- Green Teacher Magazine: Education for Planet Earth ([https://greenteacher.com](https://greenteacher.com))
- International Green Schoolyards Alliance ([http://www.internationalschoolgrounds.org](http://www.internationalschoolgrounds.org))
- Natural Living Initiative ([https://naturalearning.org/professor-robin-c-moore](https://naturalearning.org/professor-robin-c-moore))

**BOOKS AND ARTICLES:**


**RESOURCES**


THANKS A4LE!

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