



*PARTNERS FOR EDUCATION
AGRICULTURE & SUSTAINABILITY*

National Wildlife Federation - EcoCareers 2020

Careers in Food Justice

Lauren Zappone Maples, Executive Director

Cultivating joyful connections with the natural world through outdoor learning and edible education



Misson

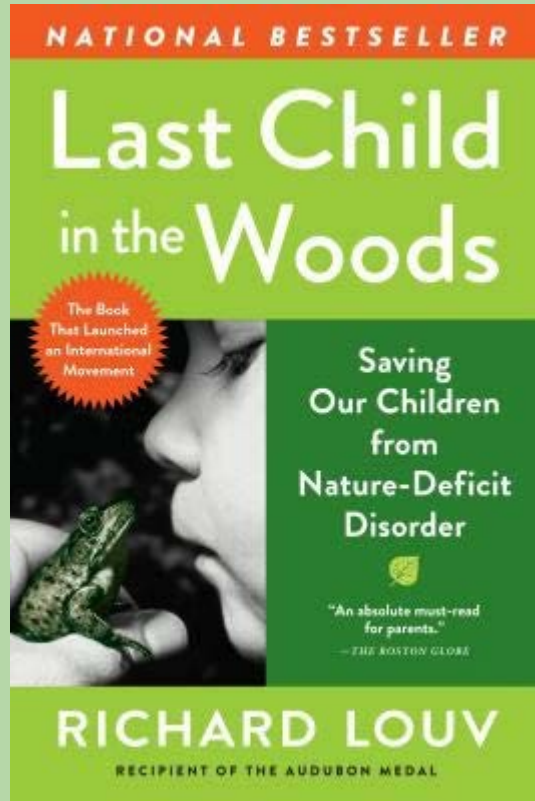
Career Progression

- **Classroom Teacher**
City of Austin -
Conservation
Program Coordinator
(Got to teach kids
outside all day for
first time!0
Academic Director -
philanthropy non
profit
Started community
farm as parent
project

Classroom Teacher
Research grant -
Outdoor Ed in NZ
Classroom
Started PEAS
Research grant -
School Garden
Programs in US
PEAS, PEAS, PEAS



Last Child In The Woods



Gardens = venue for connecting kids with nature and the source of everything in their lives

Food

Earth-Body connection - What we put into the earth comes back to us in the food we eat. “Eating is an agricultural act.” -
Wendell Berry

Community - We all have to eat. Eating together brings people together.

Food

Good, Clean, and Fair - FOR ALL!



160 Countries

Programs:



- PEAS Community Farm and Urban Orchard at Cunningham Elementary School Day Programs
 - Garden Program (veggies)
 - Kitchen Program
 - Connecting with Nature Program (wildlife habitats, raingardens)
 - Summer Camp
 - Customized programs
 - Professional Development

2011 - PEAS Community Farm 2012 - & Urban Orchard



[Donate or Pay Membership Here!](#)

SCHOOL AND COMMUNITY FARM



PEAS (PARTNERS FOR EDUCATION,
AGRICULTURE, AND SUSTAINABILITY) **FARM**
IS A COLLECTIVE OF EDUCATORS, STUDENTS,
PARENTS & COMMUNITY MEMBERS OPERATING THE
COMMUNITY AND SCHOOL ORGANIC FARM AT
CUNNINGHAM ELEMENTARY.

Located on the Cunningham Elementary campus:
2200 Berkeley Ave, Austin 78745

[Map to find us!](#)



NATURE CAN IMPROVE ACADEMIC OUTCOMES

Spending time in nature enhances educational outcomes by improving children's academic performance, focus, behavior and love of learning.

BETTER ACADEMIC PERFORMANCE

Learning in natural environments can:



BOOST PERFORMANCE
in reading, writing, math, science and social studies
1, 2, 3, 4, 5



ENHANCE
creativity, critical thinking and problem solving⁹

Seeing nature from school buildings can foster academic success^{4, 7, 8}

ENHANCED ATTENTION

Spending time in nature can help children focus their attention:



FOCUS AND ATTENTION
10, 11, 12, 13



ADHD SYMPTOMS
14, 15

The greener the setting, the better the focus^{14, 15}



INCREASED ENGAGEMENT & ENTHUSIASM

Exploration and discovery through outdoor experiences can promote motivation to learn:



INCREASED
ENTHUSIASM FOR
LEARNING^{1,16}



GREATER
ENGAGEMENT
WITH LEARNING¹⁷

IMPROVED BEHAVIOR

Nature-based learning is associated with reduced aggression and fewer discipline problems:^{18,19}



MORE
IMPULSE
CONTROL¹⁰



LESS
DISRUPTIVE
BEHAVIOR²⁰



children & nature
network

NLC

NATIONAL
LEAGUE
OF CITIES

THE
JIB
FOUNDATION

ADDITIONAL RESEARCH ON THE BENEFITS OF NATURE AVAILABLE AT childrenandnature.org/research

SUPPORTING RESEARCH

Lieberman & Hoody (1998). Closing the achievement gap: Using the environment as an integrating context for learning. Results of a Nationwide Study. San Diego: SEER. ¹ Chewla (2015). Benefits of nature contact for children. *J Plan Lit*, 30(4), 433-452. ² Berenzonitz et al. (2015). School gardens enhance academic performance and dietary outcomes in children. *J School Health*, 85(8), 509-518. ³ Williams & Dixon (2012). Impact of garden-based learning on academic outcomes in schools: Synthesis of research between 1990 and 2010. *Rev Educ Res*, 82(2), 211-235. ⁴ Walls et al. (2012). The effects of school gardens on children's science knowledge: A randomized controlled trial of low-income elementary schools. *Int J Sci Edu*, 37(17), 2858-2878. ⁵ Li & Sullivan (2016). Impact of views to school landscapes on recovery from stress and mental fatigue. *Landscape Urban Plan*, 148, 149-158. ⁶ Wu et al. (2014). Linking student performance in Massachusetts elementary schools with the "greenness" of school surroundings using remote sensing. *PLoS ONE* 9(10): e108548. ⁷ Matsuoka, R. H. 2010. Student performance and high school landscapes. *Landscape and Urban Planning* 97 (4), 275-282. ⁸ Moore & Wong (1997). *Natural Learning: Rediscovering Nature's Way of Teaching*. Berkeley, CA: MIG Communications. ⁹ Faber Taylor et al. (2002). Views of nature and self-discipline: Evidence from inner-city children. *J Environ Psych*, 22, 49-63. ¹⁰ Mårtensson et al. (2009). Outdoor environmental assessment of attention promoting settings for preschool children. *Health Place*, 15(4), 1149-1157. ¹¹ Walls (2000). At home with nature effects of "greenness" on children's cognitive functioning. *Environ Behav*, 32(6), 775-795. ¹² Berto et al. (2015). How does psychological restoration work in children? An exploratory study. *J Child Adolesc Behav* 3(5). ¹³ Faber Taylor et al. (2001). Coping with ADD: The surprising connection to green play settings. *Environ Behav*, 33(1), 54-77. ¹⁴ Amoly et al. (2014). Green and blue spaces and behavioral development in Barcelona schoolchildren: The BREATHE Project. *Environ Health Perspect*, 122,1351-1358. ¹⁵ Blair (2009) The child in the garden: An evaluative review of the benefits of school gardening. *J Environ Educ*, 40(2), 15-38. ¹⁶ Rios & Brewer (2014). Outdoor education and science achievement. *Appl Environ Educ Commun*, 13(4), 234-240. ¹⁷ Bell & Dymont (2008). Grounds for health: The intersection of green school grounds and health-promoting schools. *Environ Educ Res*, 14(1), 77-90. ¹⁸ Nedovic & Morrissey (2013). Calm, active and focused: Children's responses to an organic outdoor learning environment. *Learn Environ Res*, 16(2), 281-295. ¹⁹ Ruiz-Gallardo & Valdés (2013). Garden-based learning: An experience with "at risk" secondary education students. *J Environ Educ*, 44(4), 252-270.

C&NN recognizes that not all studies support causal statements.

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GREEN SCHOOLYARDS PROMOTE SOCIAL-EMOTIONAL SKILLS

PRACTICE

RELATIONSHIP SKILLS²

Children demonstrated more cooperative play, civil behavior and positive social relationships in green schoolyards.^{6,7}



DEVELOP

SELF-AWARENESS & SELF-MANAGEMENT

Green schoolyards can reduce aggression and discipline problems.^{6,7}

Gardening at school helped students feel proud, responsible & confident.²



SUPPORTING RESEARCH

¹www.nlm.nih.gov/health/statistics/prevalence/any-disorder-among-children.shtml ²Chawla et al. (2014). Green schoolyards as havens from stress and resources for resilience in childhood and adolescence. *Health Place*, 20, 1-13. ³Kelti et al. (2015). The restorative effects of redesigning the schoolyard: A multi-methodological, quasi-experimental study in rural Austrian middle schools. *Environ Behav*, 47(2), 119-139. ⁴Li & Sullivan (2016). Impact of views to school landscapes on recovery from stress and mental fatigue. *Landscape Urban Plan*, 148, 149-158. ⁵Roe & Aspinall (2011). The restorative outcomes of forest school and conventional school in young people with good and poor behaviour. *Urban For Urban Geo*, 10(3), 205-212. ⁶Bell & Dymont (2008). Grounds for health: The intersection of green school grounds and health-promoting schools. *Environ Educ Res*, 14(1), 77-90. ⁷Nedovic & Morrissey (2013). Calm, active and focused: Children's responses to an organic outdoor learning environment. *Learn Environ Res*, 16(2), 281-295.

ADDITIONAL RESEARCH USED FOR THIS INFOGRAPHIC AVAILABLE AT childrenandnature.org/gsybibliographies

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Research Abroad in New Zealand



Best Practices In Outdoor Education suggest 1:10 adult To student Ratio





Research - School Gardens & Edible Schoolyard

We believe the student experience is enriched through full and consistent participation of ALL students in the outdoor, garden, and kitchen lessons.

*PEAS' gardening, outdoor, and kitchen education classes provide an **authentic workspace for applied learning** and **engage students in hands-on opportunities** to cultivate and refine their **social-emotional learning** at the same time as they are building and reinforcing their **academic skills**.*



Goals for School Programming

- **Goal 1 - Improve access to outdoor and edible education during the school day**
- Goal 2 - Provide engaging outdoor and kitchen lessons delivered in an equitable and culturally responsive manner**
- Goal 3 - Support and energize teachers in using the outdoors and kitchens as a living learning lab**
- Goal 4 - Support schools' efforts centered around gardening, food, and outdoor education.**



PEAS' Partner Teaching Model

- **A PEAS educator leads 45 minute garden lessons one day every other week** October through May.
- **PEAS leads up to 5 classes in one day.** Depending on the numbers of the classes, this generally provides for 1-2 grade levels total.
- **Lessons are aligned with the science TEKS** This model provides experiential professional development for our partner-teachers.



Duties of a Teacher

- Planning and prep for 4 to 8 separate lessons in different subject areas a day.
Gathering materials for all lessons.
Delivering the actual lessons which takes about 6 hours/day
Grading assignments.
Returning assignments.
Differentiating instruction for 18-30 students with varying needs.
Planning meetings with staff/administration for students of varying needs.
Conferencing with parents of students of different needs

Small group instruction for guided reading and math.
Paper documentation of students' learning and emotional needs and behavioral issues (while teaching so not forgotten)
Electronic documentation of students' learning and emotional needs and behavioral issues (so it is in the system)
Recess/lunch duty.
Morning duty
Dismissal duty
Faculty meetings
School events

Calming students in crisis
Nursing students who are sick (most campuses only have nurses on duty part of the time)
Assessments BOY, MOY, EOY: TXKEA, TEMI, SLO,
Weekly common assessments in Language Arts and Math.
Writing and turning in verification of mastery forms.
Making copies
Preparing for observations
Attending professional development

Duties of a Teacher

- Documenting and sending home letters about absences and tardies
- Sending emails to disgruntled parents
- Calming parents
- Conferences
- Serve breakfast, clean up spills, fill out order for next week's breakfast, record who ate and send electronically.
- Planning field trips
- Thursday folders. Ugh. Took 20 minutes yesterday.
- Collecting money, making receipts, filling out deposit slips, returning off

Mediation (students, parents, and sometimes colleagues)
If need to take a sick or personal day, planning and prep for a substitute (approximately 1-2hrs).

Fieldtrip planning
Field trip lunch surveys to parents, requests to cafeteria
Conduit of paperwork delivery and tracking of items that need signatures for school and school partners.
Updates/Newsletters
Media waivers
Picture day
Field trip permissions

Staying up to date w certifications! (That we pay for ourselves!) or taking classes on weekends/nights to better our practice in a certain area
Documentation for every community partner
Learning new platforms for documentation
Counseling students who need support
Call parents of absent students
Report card comments
Stuffing report cards into envelopes
STAAR Preparation
STAAR Testing
Etc...

Cultivating Joyful Connections!



“My mission in life is not merely to survive, but to thrive; and to do so with some passion, some compassion, some humor, and some style”

— Maya Angelou