

Career Pathways to Farming PreK-16

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Developing Attitudes, Values, and Skills:

Connecting to place: Understanding and appreciating the environment in which one lives – visiting, exploring and learning about the natural world. **Values:** Loving nature, sense of belonging to it, understanding its needs, and taking responsibility for its care.

Growing and caring for plants, animals, and others: Having pets, a garden, siblings, having a job, or volunteering, encourage the qualities of observation, responsibility, nurturing, and taking beneficial actions. **Values:** Empathy, sense of service, empowerment, goal setting, optimism, honoring diversity, honoring consequences, and perseverance.

Outdoor recreation: Hiking, exploring, camping and playing outdoors develop curiosity, resourcefulness, healthy physical activity, self-confidence, and emotional intelligence. **Values:** Openness to unexpected challenges and opportunities, connecting to nature, creative expression, problem solving, cooperation, teamwork, imagination, and humility.

Making and fixing things: Learning how things work, and experimenting with making things develop logic, scientific observation, hands-on skills, problem solving, use of tools, sense of satisfaction, creative expression. **Values:** Self-reliance, higher level thinking skills, adaptability, empowerment, multiple intelligences, and accepting challenges.

Cooking, eating and exploring foods: Taking an interest in where food comes from, how it is prepared, how it tastes and nurtures us, develop a sense of appreciation and engagement with this basic and universal activity. Exploring foods introduces many sources and food cultures, as well as a variety of ways food is prepared and served. **Values:** Gratitude, healthy food and nutrition choices, openness to trying new things, educating taste, self-reliance, honoring diversity, understanding food science and chemistry.

Entrepreneurship: Using a business model for problem solving develops insight into meeting human, social, and environmental needs. It develops basic understanding of real value, and supports the understanding of the foundations of economy, which are the same foundations of sustainable ecosystems. It further develops innovative thinking as a way of solving needs and problems. **Values:** Honoring labor, honoring natural resources, innovative problem solving, understanding human, social and environmental needs, systems thinking, sharing, equilibrium between giving and taking, and community building.

Understanding Scale: Meeting personal and human needs most efficiently (examples in nature). Holistic thinking: how autonomy evolves into greater entities working together. Understanding organisms and organic communities, smaller scales merge into larger scales, how to respond and act for outcomes that fit conditions. **Values:** Interdependence, healthy relationships, systems thinking, co-measurement, sense of responsibility, sense of economy, understanding cause and effect, valuing material and non-material assets, sharing of resources, valuing diversity, harmlessness, working with laws of nature.

<p align="center">Formal Education</p> <p>Largely in a Classroom setting or following a specific curriculum.</p>	<p align="center">Formal and Informal Education</p> <p>Related to formal instruction, but emphasizes application.</p>	<p align="center">Informal Education</p> <p>Experiential learning that can occur outside of a structured curriculum.</p>
<p><u>Studies at all levels:</u> Math and Geometry Sciences Biology Botany All life sciences and Ecology All physical sciences Chemistry Earth & environmental science/Geology Meteorology Astronomy Health and nutrition Geography – Physical and Cultural Language Arts Speaking and writing Functional reading Social Studies and Ethics Anthropology and Multi-cultural Studies Economics & Business Government and International Relations Technology theory and applications Art history, music, and art appreciation Physical Education How to uses educational tools, teamwork, using multiple intelligences, developing emotional literacy. On-line courses Attending webinars and online forums Community College University</p>	<p>School Gardens that apply all subjects</p> <p><u>Applied Sciences at all levels:</u> Pre-school through Early Primary Grades: Including language development – words and concepts, experimentation. Science fair participation.</p> <p><u>Project-based learning</u> Studio arts, design, and techniques Digital arts and applications 4-H Clubs School clubs Scouting Future Farmers of America Vocational Education Culinary arts Permaculture Design Courses Workshops Internships WWOOFing (World Wide Opportunities in Organic Farming) Doing research and/or exploring</p> <p>Post-High School Institutions for farming, forestry, outdoor, and environmental education.</p>	<p><u>Activities that promote learning, inquiry, observation, experimentation, problem solving, cooperation, and responsibility:</u></p> <p>Picnics/gatherings with family & friends Playing outdoors Household chores Travel Camping, hiking, fishing, swimming, etc. Gardening Cooking Arts and crafts Celebrating cultural traditions Educational Media and Games Nature movies and documentaries Reading for pleasure Hands-on hobbies and Collecting Making journals and scrapbooks Making and repairing personal and household objects. Designing, inventing, and building Creative writing Creating and/or participating in home business Writing and following instructions Participating in clubs and activities Volunteering with non-profit community organizations Working for an employer Apprenticeship and Internship Civic and environmental engagement</p>

Some Resources (in progress)

Foundational Books:

Beyond Ecophobia: Reclaiming the Heart in Nature Education – David Sobel
Sharing Nature with Children – Joseph Cornell
Last Child in the Woods: Saving Our Children From Nature-Deficit Disorder – Richard Louv
The Advanced Permaculture Student Teacher's Guide – Matt Powers
Gaia's Garden: A Guide to Home-Scale Permaculture – Toby Hemenway
Rainwater Harvesting for Drylands and Beyond – Brad Lancaster
Books published by Acres U.S.A: <https://www.acresusa.com/collections/books-videos>
Books published by Rodale Press
Diet for a Small Planet – Frances Moore Lappé

Educational resources:

For a comprehensive bibliography of garden education books, curricula, and resources:
For children and youth: <https://gardensforhumanity.org/intro-schoolgardens/>
General gardening: <https://gardensforhumanity.org/start-a-garden/>
Kids Gardening <https://kidsgardening.org/>
Junior Master Gardeners <https://jmgkids.us/curriculum/>
Outdoortopia <https://www.outdoortopia.org/>
Edutopia <https://www.edutopia.org/>
Children and Nature Network <https://www.childrenandnature.org/>
Learning Herbs <https://learningherbs.com/>
Project Learning Tree <https://www.plt.org/>
Rainwater Harvesting for Drylands and Beyond <https://www.harvestingrainwater.com/>
The Rodale Institute <https://rodaleinstitute.org/>
Muddy Smiles <https://muddysmiles.com/>
The Urban Farm <https://www.urbanfarm.org/>
The Permaculture Student <https://www.thepermaculturestudent.com/>
University of Arizona Cooperative Extension <https://extension.arizona.edu/explore>
WOOF USA – <https://woofusa.org/>

Non-profits

Gardens for Humanity <https://gardensforhumanity.org/>
Kiss the Ground <https://kisstheground.com/>
The Edible Schoolyard Project <https://edibleschoolyard.org/>
Slow Food USA/Prescott <https://slowfoodusa.org/> and <https://www.facebook.com/SlowFoodPrescott>