

Benefits of School Gardening

The past decade has witnessed substantial growth in the number of school gardens in the U.S., led by the state of California which has called for a garden in every school. In the Tampa Bay metropolitan area, including Hillsborough, Pinellas, and Pasco counties, it is unclear exactly how many school gardens exist at the present time, but there does seem to be a trend toward developing new school gardens. Many schools have become aware of the multiple benefits of school gardening for students, teachers, schools, and communities.

Benefits of School Gardening for Students

Educational benefits

Gardening offers hands-on, experiential learning opportunities in a wide array of disciplines, including the natural and social sciences, math, language arts (e.g., through garden journaling), visual arts (e.g., through garden design and decoration), and nutrition. With recent concern over relatively weak science and math skills among American children, the need for innovation in science and math teaching is apparent. There is mounting evidence that students who participate in school gardening score significantly higher on standardized science achievement tests (Klemmer, et.al. 2005). Further research along these lines can be found at [Cornell University's Garden Based Learning website](#) and at [the California School Garden Network](#).

Environmental stewardship and connection with nature

Richard Louv's 2005 book *Last Child in the Woods: Saving our children from nature deficit disorder* is a call to action. A close connection with nature can be therapeutic in addressing attention deficit disorders and other problems faced by so many children today. Locally, Dr. Peter Gorski, chief pediatrician at the Children's Board of Hillsborough County, has recently affirmed the need to: "reverse the dangerous disconnection between children and nature – dangerous for children's health, for their growth and development and for their opportunities, over time, to preserve a healthy society." By deepening children's sense of connection with nature, school gardening can inspire environmental stewardship. When children learn about water and energy cycles, the food chain, and the peculiar needs of individual species, and when they feel a sense of connection to a certain species or individual plant, they have a reason to care about all the forces that impact that plant's future. A garden offers many occasions for achieving insight into the long-term human impact on the natural environment. From the water shortage to the over-use of pesticides, children who engage in gardening have first-hand opportunities to observe the importance of conservation and intelligent allocation of resources.

Lifestyle and Nutrition

With children's nutrition under assault by fast food and junk food industries, and with only about one-fourth of Florida adults eating recommended quantities of fruits and vegetables, it is no wonder that nearly one-third of Florida's 10-17 year olds are reported to be overweight or at risk for being overweight. School gardening offers children opportunities for outdoor exercise while teaching them a useful skill. Gardens containing fruit and vegetables can also help to revise attitudes about particular foods. There is mounting evidence that active learning in less structured, participatory spaces like gardens is more likely to transform children's food attitudes and habits, and that school gardening, especially when combined with a healthy lunch program or nutritional education, encourages more healthful food choices. Students are more likely to try eating vegetables they have grown themselves and to ask for them at home (Morris & Zidenberg-Cherr 2002). When students take their preferences back to their families, they can help to improve family consumption choices.

Benefits of School Gardening for Teachers, Schools and Communities

Active learning and student engagement

Gardening activities can help to engage students in learning in a way that is more difficult in the classroom. Gardening allows surprises to arise when insects land in the vicinity, when plants are afflicted with mites or fungus, or when the weather surprises everyone and disrupts the plan for the day, for example. These surprises show that nature is in control and they give students immediate and personal reasons for wanting to know the answers to pressing questions.

Student attention and class management

Because of the engaging nature of garden learning, students with attention deficit and other disorders often find it more suitable for their learning styles. Teachers report fewer discipline problems when science is taught in this sort of experiential manner, for example. Teachers develop useful concepts, such as "invisible walls," to create a sense of boundaries when learning in the garden.

Teachers as gardeners

Teachers themselves also learn useful gardening skills when they incorporate gardening into their lesson plans. These skills can be transferred into their own homes and social networks, thereby benefiting their own health and the health of their families.

Connection to history and the community

Gardening ties students to the social and material history of the land. Gardeners from the community can be brought in to demonstrate local, traditional gardening techniques and the traditional uses of particular plants. Gardening offers many opportunities for connecting

with local history by incorporating native plants and plants grown during specific historical eras.

School pride

Like a team sport or mascot, gardening can offer a symbolic locus of school pride and spirit. Gardening offers schools a way of helping children to identify with their school and to feel proud of their own individual contribution. Children know which plants they helped to grow, and they feel proud of them. This can improve school spirit and children's attitudes toward the school.

Sources Consulted

- [California School Garden Network](#)
- [Cornell University's Garden Based Learning](#)
- Dobbs, Kathleen, Diane Relf, and Alan McDaniel. 1998. Survey on the needs of elementary education teachers to enhance the use of horticulture or gardening in the classroom. *HortTechnology* 8(3):370-373.
- [Florida Department of Health](#)
- [Florida Farm Bureau](#)
- Kiefer, Joseph, & Kemple, Martin. (1999). Stories from our common roots: Strategies for building an ecologically sustainable way of learning. In G.A. Smith & D.R. Williams (Eds.), *Ecological education in action*. Albany, NY: SUNY Press.
- Klemmer, C.D., Waliczek, T.M. & Zajicek, J.M. (2005). Growing Minds: The Effect of a School Gardening Program on the Science Achievement of Elementary Students. *HortTechnology*. 15(3): 448-452.)
- Louv, Richard (2005). *Last Child in the Woods: Saving our children from nature deficit disorder* Chapel Hill, NC: Algonquin Books.
- [National Survey of Children's Health](#)
- Ozer, Emily (2006). The Effects of School Gardens on Students and Schools: Conceptualization and Considerations for Maximizing Healthy Development. *Health Education and Behavior* 7.
- Morris, Jennifer, & Zidenberg-Cherr, Sheri. (2002). Garden-enhanced nutrition curriculum improves fourth-grade school children's knowledge of nutrition and preferences for some vegetables. *Journal of the American Dietetic Association* 102(1), 9.
- Skelly, Sonja and Jennifer Bradley. (2000). The importance of school gardens as perceived by Florida elementary school teachers. *HortTechnology* 10(1):229-231.