



# Grow Local



## School Garden Start-up Guide



A publication of Sustainable Food Center

**GROW.SHARE.PREPARE.**



# SFC's Grow Local Program School Garden Start-up Guide



SUSTAINABLE FOOD CENTER

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## Acknowledgements

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Sustainable Food Center (SFC) is an independent non-profit organization in Austin, Texas. Our mission is to cultivate a healthy community by strengthening the local food system and improving access to nutritious, affordable food. SFC's Grow Local gardening program, one of SFC's three programs, offers Central Texas residents knowledge and resources necessary to grow their own food. For over 30 years, Grow Local has been helping local residents start and sustain school gardens by connecting parents, teachers, and community members with the resources and education they need in order to plan, fund, build, sustain, and advocate on behalf of school gardens, and we want to share what we have learned through this guide.

This guide would not have sprouted without the support of numerous wonderful people. We wish to extend a special acknowledgment to Tracey Grimsley and Saskia Esslinger for their time and energy in creating the first edition of the Sustainable Food Center Youth Food Gardening Curriculum. Gratitude abounds for Mike Evans and all of his research, time, and hard work in compiling the foundation for the second edition. A special thanks to Emily Neiman for her attention to detail, thoroughness, and enthusiasm for gardening. We also want to thank the Still Water Foundation for their generous support of Sustainable Food Center. Lastly, we especially want to thank Billy Smith for his talented and insightful contribution to the revision of this third edition.



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# Introduction

Sylvia and her son Salvador lived in East Austin near an elementary school with an active school garden. Sylvia remembers that her interest in the garden started with her concern for Salvador, as he was showing early signs of diabetes. She was worried for his health and became interested in making changes: “more fruits and vegetables and exercise to take care of his health.”

Salvador’s motivation? “I wanted to have more energy to play outside.”

Together, they started helping in the school’s garden, which had plots for parents as well as students. She recalls, “We learned quite a bit because we didn’t know anything about plants. We learned how to plant things, how to take care of them, and how much you need to water them.” Together, they grew tomatoes, melons, chiles, lettuce, cilantro, and cucumbers. Salvador always liked to help.

She believed it was important to learn how to grow plants in the most natural way. They changed their diets to include more fruits and vegetables to help Salvador eat healthier and try new things; “I like carrots the best!”

Through her involvement in the school garden, Sylvia met other mothers that came out to help. “It felt like living in a community and having support.” Salvador enjoyed helping out because he wanted to learn more about gardening and because the school “looked prettier with more plants and flowers,” like the sunflowers and bluebonnets that he planted. After school, he helped his teacher in the vegetable garden and grew cucumbers, melons, and carrots.

Together, they enjoyed helping in the garden because “it was fun to learn to eat healthier and live in community with other people - kids and adults together.” The garden helped them stay active, eat more fruits and vegetables, and join a collaborative community of parents and students.



Graham Elementary’s school garden in Austin, TX.



Sylvia and her son Salvador in their school garden.

# Background

Today, children and adults spend less time in nature than ever before and know little about the sources of their food. At the same time, an unprecedented number of children are suffering from diet-related diseases caused by unhealthy diets that are high in processed food and low in fresh fruits and vegetables. A growing body of research demonstrates that a lack of time spent in nature has a negative developmental impact on our youngest generation; simultaneously, there is more research than ever before that demonstrate how school gardens are beneficial to children.

School gardens provide a powerful opportunity to improve the quality of life for children. Studies demonstrate that children who participate in school gardens have an increased openness to, preference for, and intake of fruits and vegetables. They have increased academic performance and attitudes towards learning. School gardens can improve behavior at home and school. Research has shown that green settings can improve alertness in children with attention deficit disorder. Children who spend time in school gardens have more appreciation for the environment (see the Appendix for more research to share with others).

Another benefit of school gardens is that almost any subject can be taught using the garden. Garden curricula are available for many regions around the U.S., and many of them align with state teaching standards. School gardens provide an engaging context to teach students to advocate for themselves, their communities, and the earth. By cultivating a connection with nature, gardens foster a sense of environmental stewardship. They also help start conversations about the food system (the way food is produced, distributed, prepared, consumed, and disposed of) and encourage students to think critically about the food they eat and gain life-long skills in making healthy choices.



Preschool students visit SFC's Teaching Garden and learn about growing healthy food.

## FIELD NOTES

### SFC's Sprouting Healthy Kids evaluation results

Sprouting Healthy Kids (SHK) was SFC's farm-to-school and food-systems education project. SHK was originally piloted in middle school communities and later expanded to include elementary schools. The components of the SHK middle school pilot program included in-class food-system lessons, an afterschool gardening program, local food purchasing for the cafeteria, farmer visits to schools, local fruit and vegetable sampling in the cafeteria, and field trips to local farms. In 2008, The University of Texas School of Public Health-Austin initiated a one-year evaluation study of the SHK middle school program in order to assess its impact. The evaluation concluded that students who were exposed to one or more of the six intervention components increased their Fruits and Vegetables (F&V) Knowledge significantly. Furthermore, students who were exposed to two or more intervention components scored significantly higher on multiple outcomes, including F&V Consumption, F&V Knowledge, and Motivation to Eat F&V. They scored significantly lower on the Preference for Unhealthy Foods scale. The farmer visit, taste-testing, and classroom lessons were the three intervention components that seemed to have had the greatest impact on the study outcome variables.

### History of School Gardens

School gardens in the United States first arose in the late 19th century in an effort to bring an element of the outdoors to urban children and to improve the aesthetic value of urban schools. The Massachusetts Horticulture Society and the School Garden Association of New York, among other entities, promoted school gardens, and throughout the 1910s and 1920s these gardens spread throughout the United States and Canada. In 1916, over one million students contributed to the production of food during World War I. The value placed on school gardens declined after the war however. Although school gardens regained popularity during World War II as part of that war effort, when the second world war ended, gardens were mostly replaced by playgrounds and athletic fields.

Since the 1960s, in tangent with rising consciousness about the need to protect the environment and our natural resources, there has been a resurgence of interest in school gardening. Over the past ten years, childhood obesity and diet-related disease have become national concerns. Urban gardening has gained momentum as a strategy to address these problems. During her time as First Lady, Michelle Obama has been an active

leader in promoting the important role community and school gardens play in improving nutrition and food security through the “Let’s Move” initiative. The number of school gardens nationwide is growing rapidly. In the U.S. and Canada, many nonprofit organizations and governmental agencies have offered educational and financial support to help create more school gardens throughout the nation. By saving space to grow food together, we can improve our health, strengthen our food system, and transform our surrounding environments for the better.

## Defining School Gardens

School gardens may take many forms. They may be big or small, in-ground, in raised beds, or in containers. They may include wildlife habitat areas and community gathering spaces. Some schools include a community garden component, which allows parents, staff, and nearby residents to have a place to grow food while also contributing to the maintenance of the school garden. They may be used by children, teachers, parents, and community members. School gardens can share characteristics with community gardens, and are sometimes considered a type of community garden. The defining characteristic of a school garden, as opposed to a community garden, is that the main purpose of the garden is to serve as a tool to teach growing food as well as other academic subjects to students. In this guide, we focus on the type of school gardens that are used as academic teaching tools and to produce food for consumption, and in which students and teachers participate, along with parents and community members.



A student in Graham Elementary’s Garden Club helps hand-pollinate corn in the school garden.

## How to Use This Guide

This guide is intended for parents, teachers, and community members interested in creating and sustaining a school garden. You will find guidance about the steps needed to organize and build a school garden from the early planning stages, to instruction about how to utilize the garden as a valuable educational tool that connects children and community members with the source of their food, to ensuring that the garden achieves long-term success.

The first section, **Getting Organized**, addresses how to galvanize a community of neighbors, teachers, parents, students, and other stakeholders around a school garden project. Next, **Designing the Garden** focuses on specific aspects of designing and building a school garden. The **Building and Caring for the Garden** section covers ongoing maintenance and offers an introduction to the basics of organic gardening. The **Teaching in the Garden** section shares expert tips about using the garden as a teaching tool and about classroom management in the garden. The **Managing the Garden** section discusses approaches to sharing the work of maintaining a successful garden, communication strategies, and troubleshooting common challenges. Finally, the **Sustaining the Garden** section shares strategies for how to keep the community engaged, ensure the garden team is strong, and find the resources needed to sustain your garden for the long-term. There is also an appendix that includes resources referenced throughout.

We encourage you to use this as a starting point and to expand your gardening knowledge using the resources recommended throughout the guide. Getting a school garden started as a beginning gardener can be intimidating, but don’t worry; gardening is all about trial and error. The best way to build skills is to do your research and get started. Gardening is a vast field, and there is always more to learn!



Kealing Middle School in Austin, TX engages teachers, students, and parents through an active garden.