

Natural Resources

Bring the outdoors into your curriculum

The Farmer and the Bell

By Valynda Mayes

School vegetable gardens are often in the news these days—the White House even involved local schools in its kitchen garden. Sometimes it's with a tinge of controversy, as with most things health-related—do they really contribute to healthy eating? More important to *S&C* readers, do they enhance learning? The Cornell Garden-Based Learning project says yes, with an overview of research findings at www.csgn.org/images/pdf/academics/Brief.pdf. Another resource is the Farm to School and School Garden Research Consortium, <http://data.dorksunite.ning.com>.

If you just want to get your hands dirty, read on to find out where to get more information on starting your own school garden.

Planning Season

Though summer is prime growing season in most of the country, there is no reason why you can't garden with your students in fall and spring with cool season vegetables (and even in winter with protection, such as row cover or plastic greenhouses). Summer is the perfect time to get the permissions you need, assemble a volunteer team, prepare the garden bed (including a soil test), and coordinate the ties to your curriculum. National Environmental Education Week has a number of curricula that



Photo courtesy of Todd Cary

are standards-based and organized by grade level at www.eeweek.org/resources/garden_curricula.htm.

If you lack space, many edible plants can be grown in pots—look for miniature varieties or grow leafy or root vegetables and herbs. If there is not a patch of soil on your school property, try growing up a wall! At www.woollyschoolgarden.org, if you lack the funds too, sign up and wait for the money to be raised for your school to receive a vertical garden and supplies.

If you are a gardening novice, spend the summer reading and practicing in your own garden or at a local community garden. Most of the resources here provide basic information about gardening, but you may want to visit your local garden center to get advice and suggestions for appropriate plants for your climate. While you're there, ask if they would

like to donate any tools or seeds.

You'll need help, so remember, Master Gardeners are required to do community service—contact your cooperative local extension service to see if you can find an expert volunteer. Another program that is just getting started is FoodCorps (<http://food-corps.org>), sort of an Americorps for school gardens. Finally, seek out gardening parents in your PTA. If you are looking for a community to support you, check out this weekly (Thursday, 6 p.m. PST) tweet chat: <http://schoolgardenweekly.com/schoolgardenchat>.

Cornell Garden-Based Learning

<http://blogs.cornell.edu/garden>
This project of Cornell University includes information for both new and established gardens, including activities and ways to network with other schools.

Growing, Eating, Living: A Garden Guide for Head Start

<http://caheadstart.org/HeadStart-GardenGuide07.pdf>

This guide covers gardening with the youngest students. In addition to planning steps, it includes gardening information such as choosing a site, selecting varieties good for children, and avoiding poisonous plants.

KidsGardening.org

<http://www.kidsgardening.org/>

A good resource for curriculum ideas and grant opportunities. Sponsor of a \$60 online course on plant science.

Kitchen Gardeners School Garden Checklist

<http://kitchengardeners.org/school-garden-checklist>

This handy exhaustive list provides an overview of everything you need to assemble and consider when planning a school garden.

Let's Get Growing: Gardening How To

www.csgn.org/csysgvideo.php

Are you a visual learner? The California School Garden Network features how-to videos on composting, bed preparation, and theme gardens. There are extensive resources throughout the site.

Plant a Seed, Watch It Grow

www.mastergardenerssandiego.org/schools/gardenbook/main.html

Another overview, quite extensive.

School Garden Start-Up Guide

<http://celosangeles.ucdavis.edu/files/84425.pdf>

This great overview from the Los Angeles County Cooperative Extension is also available in Spanish. It includes good information on soil testing and other “things to consider.”

School Garden Wizard

www.schoolgardenwizard.org

This website includes comprehensive instructions for creating the garden, keeping it growing, and learning in the garden. The proposal and cost-planning sections are especially useful.

In Print

Gardening With Children (Hanneman 2011) is a little book full of ideas for working with young farmers in the school yard or at home. (Thanks to NSTA Recommends Lead Reviewer Juliana Texley for this tip. See the rest of her summer reading list on p. 70.)

How to Grow a School Garden: A Complete Guide for Parents and Teachers (Bucklin-Sporer and Pringle 2010) includes everything you need to know to get started, even grant writing tips.

The Root of It

Plants are part of the curriculum, and hands-on is a given in any garden—it's a win-win situation. Whether your goal is encouraging better eating, getting students outside in nature, or creating an interesting curriculum, school gardens are a worthwhile endeavor. Imagine the looks on your students' faces

when you start your plant unit on the first day of school by handing out seeds!

Valynda Mayes (vmayes@nsta.org) is managing editor of *Science and Children*.

References

- Bucklin-Sporer, A., and R.K. Pringle. 2010. *How to grow a school garden: A complete guide for parents and teachers*. Portland, OR: Timber Press.
- Hanneman, M. 2011. *Gardening with children*. Brooklyn, NY: Brooklyn Botanical Garden.

Connecting to the Standards

This article relates to the following *National Science Education Standards* (NRC 1996):

Teaching Standards

Standard D: Teachers of science design and manage learning environments that provide students with the time, space, and resources needed for learning science. In doing this, teachers

- identify and use resources outside the school.
- Engage students in designing the learning environment.

National Research Council (NRC). 1996. *National science education standards*. Washington, DC: National Academies Press.