

Farm to School Toolkit Pilot

Section 3: Gardens and Growing Spaces

School gardens can come in many shapes and sizes. In this section, school gardens will include standard school gardens, greenhouses, and indoor growing spaces. For purposes of consistent language, we use the following definitions:

- **School garden:** an outdoor space, typically in ground, used to both grow food and offer education.
- **Indoor garden:** can vary in use and size, but typically serve to start plants for school gardens and showcase technology advances inside (growing lights, hydroponics systems, etc.).
- **Greenhouse or hoop house:** meant for season extension, typically a climate controlled glass structure.

Q: What is a school garden?

A: School gardens are typically in-ground exterior spaces that offer an opportunity to learn how food is grown. They offer unique learning opportunities for both students and teachers. Gardening can connect multiple disciplines, including math, science, English, and nutrition.



Gardens can be used to teach children how to sustain themselves, and to care for and respect the earth. School gardens foster growth and knowledge about where food comes from and nourish healthy living habits. School gardens can be incorporated as community garden spaces that are open to the public. This way they can provide inter-generational and cross-cultural learning opportunities.

Typically, school gardens are designed with student input. They create aesthetically pleasing ways to learn about the environment, how to grow food, and create social connections and common ground. School gardens show children

that they are a part of something bigger in their community and school system. This pride has the chance to grow in all ages from toddlers to high school students.

Q: How do I design a school garden?

A: School gardens can be designed and implemented in many ways. A few examples of garden designs are shown below. Consider what classrooms will be utilizing the garden. Is it appropriate to have a theme for the design? Will you engage different grade levels? What techniques are you hoping to share with them? Will all ages be engaged in planting, care, and harvesting?

Design is about both function and aesthetics; start with function in mind. Then think of ways to also make the space visually appealing. Make sure the result is both helpful for your curriculum or lesson plans and appealing visually. Create a phasing strategy. Consider your three-year plan for expansion or full implementation of your garden. What are the phases you will tackle each year? Who needs to be involved?

Potential components for a growing space may include meeting areas or classroom lesson space, raised bed areas, tables and benches, experimentation areas, tool shed for storage, and a compost pile or bin.

Indoor growing components may include: tiered growing tables, lights, hydroponics, etc. Greenhouse components may include: movable tables, hydroponic or aquaponics technologies, and lighting.

Gardens may have a theme for determining plant selection. A few examples of themed gardens include:

- butterfly or pollinator space,
- showcasing the full ecosystem,
- native plants and heritage,
- salsa, pizza, or salad bowl gardening.

Once your team has determined the theme for the design, consider the best site location. Consider proximity to a water source, classrooms, sun and shade, topography, visibility, etc. When choosing the design for your garden, include staff and students in the process to encourage early engagement and a sense of ownership.

Consider your school and appropriate potential connections to a school garden. It is wise to start small and later add on elements as students, teachers, and community members become more engaged.

Q: Who will maintain the school garden?

A: It is important to identify the maintenance needs of your garden early in the planning process. You'll want to create a management plan with all participants (teachers, food service staff, grounds keepers, parents, and students). This will help ensure proper upkeep and accountability. You may also need to consider a maintenance plan for the summer and holidays, when staff and students are not regularly in the building.

Consider which community organizations, active school parents, or volunteers may be interested in volunteer hours. Can summer volunteers take home produce for personal consumption? Consider what protocols your school wants to have in place. Additional considerations for your management plan should include:

- Determine school garden lead(s); who has control of the coordination of the garden?
- Build a steering committee of teachers, students, and staff.
- Connect with classroom curriculum where possible.
- Involve the community.
- Be diligent with your phasing strategy for implementation. Check in regularly on progress, and adjust your original plan as needed.

Q: What can easily be grown in a school garden?

A: When considering what plants to grow in your school garden, start small with easy-to-grow crops. Consider the time of year you will start planting. Can you start seeds indoors in a classroom? Schools often start planting in the spring, which only allows about 4-8 weeks of growing time before summer break begins for the students. Is this appropriate for classroom needs? Can you grow early spring crops instead?

Consider crops that can be grown towards the end of the school year in late spring that can be harvested in the fall. Or perhaps hold a planting day during the summer to offer fall crops. Options for spring planting include fast-growing salad greens, main crop varieties harvested when they are still in a baby or immature stage, sprouting seeds or micro greens, buying four-week-old seedling plants, or growing seedlings early in the classroom to get a head start.



Q: How do I engage students in our garden?

A: Engage students in your school garden throughout the whole process. This increases ownership and engagement from students, which is essential when using the garden as a tool for learning. Involve students in the design process (initial designs and planting options); maintenance (upkeep and harvesting); and garden-based lessons and activities.

Q: How do I engage community members in our garden?

A: Community engagement is an important piece to sustaining your garden. Involve the community by in the development of a vision and mission for the garden. Invite community

members to sit on a steering committee, planning or management team, or design process meetings.

The more individuals engage from the beginning, the more likely they are to stay fully engaged throughout the process. Offering multiple ways for community members to engage will help build a volunteer base for summer and holiday maintenance of the garden, as well as a sense of ownership and accountability that reaches beyond the school.

Q: Where do I find funding for a school garden?

A: You'll need funding and resources for continual upkeep and improvement for the garden. Grants are typically available from community organizations, businesses, and foundations. Although grants are competitive, it's worth talking to a few grant funders in your area to see how your school garden project might fit their mission.

Some state and federal grants can be used for school gardens. Typically, these grants involve procurement strategies for local produce, education standards, and community impacts.

Also consider fundraisers that may be dedicated to certain pieces of the garden. Would any local organizations or businesses want to donate products (trees, plants, raised beds, materials, etc.)? This is a great way for organizations to get visibility and give back to their community.

Consider different strategies that fit into your school's purpose and school garden management plan. Then create a funding strategy to ensure the sustainability of your garden.

Resources

From Iowa State University:

[Agricultural Urbanism Toolkit](#) (ISU Extension and Outreach, LF 7)

[Growing in the Garden: Local Foods and Healthy Living](#) (ISU Extension and Outreach, 4H 905LFHL)

[Make Food Safety a Priority in Your School Garden](#) (ISU Extension and Outreach, LF 21)

[Elementary School Gardens \(food safety\) Program](#) (ISU Safe Produce, online training)

From Iowa agencies and organizations:

[Engaging Your Entire School in the Garden](#) (Iowa Department of Education)

From other agencies and organizations:

[Community and Family Engagement: Principals Share What Works](#) (Coalition for Community Schools)

[Farm to School Toolkit](#) (Minneapolis Public Schools)

[Funding Farm to School](#) (National Farm to School Network)

[Got Dirt? Garden Toolkit for Implementing Youth Gardens](#) (Wisconsin Department of Health Services)

[Grant Opportunities for School and Youth Garden Programs](#) (KidsGardening.org)

[Growing School Gardens: Annie's How-To Guide for Five Kinds of Children's Gardens](#) (Annie's Homegrown)

[Minnesota School Garden Toolkit](#) (Minnesota Department of Agriculture)

[National School Garden Network](#) (Life Lab)

[On-Farm Infrastructure Toolkit](#) (Carolina Farm Stewardship Association)

[Pack Shed Design](#) (Midwest Organic and Sustainable Education Service)

[School Garden Checklist](#) (Let's Move)

[School Garden Resources](#) (Life Lab)

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The Cass County Farm to School Coalition was started in 2016 as a part of the Community Food Systems Program collaborating with Cass County Food Action Coalition. The coalition's goal has been to create a collaborative network of organizations, school and institutions to work together to develop educational programs with schools around nutrition, agriculture basics and farm to school procurement. Additionally, one of the first collective efforts was to develop a toolkit of resources that highlight the opportunities that exist for schools to begin farm to school programming.

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