



BUILDING A SCHOOL GARDEN

When you are exploring whether or not to begin a school garden, you'll want to look into your options to make an informed decision about the right fit. With technology, innovation, and our wonderful community partners, gardens can look a lot of different ways.

Community Gardens

Before thinking about having a garden on your own school property, find out if there is a community garden within walking distance to your school. These gardens typically have a volunteer base that can help with support and maintenance so that your main focus can be on teaching your students. Get in touch with Springfield Community Gardens at SpringfieldCommunityGardens@gmail.com to see if this is an option.

If you are thinking about having a garden at your school, there are several options that you'll want to look into. Each one has its own set of pros and cons, so read through the following list to get ideas about what will work for your school and space.

Raised Beds

Raised beds are chosen for a number of reasons: (1) they allow you to avoid waterlogged areas or soils that do not drain well by elevating your soil line above the ground; (2) they are easier to manage as you don't have encroaching grasses; (3) they are easier to access as you do not have to bend over to the ground; and (4) they allow you to avoid contaminated or compacted soils.

Raised beds can be purchased as kits or made using recycled, reclaimed, or donated materials. Many creative ideas can be found online and can even be incorporated into a class project, depending on the style. Creating a bed made from wattle, logs, concrete blocks, planks and rebar, or sandbags are common options. Think about any potential pollutants that may be in your new or recycled materials. Treated wood is NOT recommended for raised beds nor are railroad ties. Check this website for instructions. <http://www.rodalesorganiclife.com/garden/5-raised-bed-designs-you-can-make-in-an-afternoon>

The most expensive cost may be filling the bed with your growing medium. You will find a lot of recommendations online, but most will suggest a topsoil/compost blend or a soilless mixture from a garden store.

In Ground

If you have available land with decent soil and drainage, an in-ground bed may be a good choice for you. The start-up costs may be less than raised beds, but it will be more expensive in time as you will need to control the grasses and weeds that often aggressively try to reestablish in the area, especially with our climate in Southwest Missouri.

It is recommended that you get a soil test for your in-ground beds to make sure that your soil is not contaminated with any heavy metals. The soil test will also let you know the nutrient levels in your soil so that you can add organic fertilizers appropriately.

High Tunnels and Cold Frames

High Tunnels are an expensive purchase, but they offer you the benefit of year-round growing. Inside the tunnels you can opt for in-ground beds, raised beds, or stand-up beds. You can even use this as a propagation house, a place where you start and nurture seedlings.

Cold frames, or cold boxes, also provide year-round growing options, but are much smaller, more manageable, and far less expensive. There are many creative ways that you can make your own using recycled windows and materials.

Both do require a considerable amount of attention to regulate the temperature through the changing seasons. In the spring and fall you will need to closely monitor the weather and adjust the sides to help trap or release heat, depending on what crops you have growing.



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Hydroponics/Aeroponics/Tower Gardens

Springfield Public Schools Science Curriculum Department has Tower Gardens available for checkout throughout the district. These Aeroponic units pump a nutrient-rich water solution over plant roots at set intervals. The roots actually grow in the air, not in water or soil. In hydroponic growing, roots are grown in a nutrient-rich solution that is constantly being cycled. This solution of both types of systems must also be closely monitored for correct nutrient level and pH.

These systems can be costly and require frequent pH and nutrient checks to keep plants healthy. The systems can be used indoors or outside, allowing for year-round growing.

Container Gardening

You can also do some wonderful gardening in containers or large planters. These containers can be placed on concrete or asphalt, which is very helpful for schools that don't have much space or would like a non-permanent garden option. You'll need to water frequently in the summer, but how often depends on the size of your container and the heat of the season. As a rule, you will need to water daily in the summer, but there are irrigation options to make this easier, such as spaghetti drip irrigation on a timer.

Do not use garden soil in these containers, as it can become very compacted and heavy. You'll want to opt for a potting mix or a compost/potting mix blend.

Grow Lights

While this may not be a great way to grow a lot of food, you can still get a decent harvest and show your students the entire seed to plate process. They have set-ups that will fit comfortably in your classroom so that students can keep an eye on the plants. This is also a great way to start plants that will eventually make their way to another type of garden (raised bed, container, etc.)

Prices range and quality vary tremendously for different systems, so be sure to do a bit of research.

Alternative Garden Themes

Not all gardens have to grow food for us. There is a lot to learn from native plant gardens, butterfly gardens, xeriscape gardens (drought-tolerant), rain gardens, etc. Just having a space to watch the seasons progress and natural processes take place is an opportunity for curiosity and learning.

Designing and Building

Once you decide on the type of garden that will work best for your garden team and school, you'll want to reach out for necessary supplies and tools to create your garden space. Start early, as many companies and organizations are happy to help you, but may require a charitable giving application or basic grant application.

It's also a good idea to start connecting to your school community to see what they may have to offer. Some parents may work for a company willing to sponsor your garden or they may work for a plant nursery that will donate plant materials or soils. You may have parents or neighbors who are experienced builders willing to help with raised beds or experienced plumbers happy to set up your irrigation. (REMEMBER: Please keep SPS District Grounds Manager Blayne Radford in the know as you move forward on plans.)

The City of Springfield also offers garden essentials like compost and mulch. Check out this website to learn more. <https://www.springfieldmo.gov/493/Products-Available>

You may also be able to find supplies at the Habitat for Humanity ReStore. Their stock changes, but it's also a great way to get creative and recycle.

