



4 Steps

To Cultivating a School Garden Program

Plant a seed & watch healthy habits take root in children's lives.

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**NATIONAL
FARM to SCHOOL
NETWORK**







MISSISSIPPI

A student will eat anything they help grow! There is no better way to increase health and wellness for our students than through the development of a school garden. Our goal is to educate young households about the importance of nutritionally-dense foods as well as support local growers.

School gardens can be a great asset to the school environment and the surrounding community. However, the process involves careful planning and good management skills. This 4 step guide will set you on your way to cultivating a successful garden program at your school!

1. Gather Your Team

Starting and maintaining a school garden is not a one person job - the more support you have, the better! A successful school garden team can be made up of as many or as few members as needed, but should have at least one of the following stakeholders:

-  School administration
-  Outdoor maintenance staff
-  Local gardeners
-  Teachers
-  Students
-  Parents and other volunteers

Participation from **school administration** is necessary to gain approval for the space and design of the garden as well as teachers' time for garden workshops.

The school's year-round **outdoor maintenance staff** may be required for upkeep when school is not in session. As a part of your garden team, they will be in-the-know about what types of produce are being planted and the best methods of keeping them alive throughout the hot, summer months.

Local gardeners can share insight and techniques about how harvest from just a handful of seeds.

Support from **teachers** is the key to a great garden program. They will be in charge of the gardening experience for the students. Teachers will get the students excited about the caretaking process of the plants, as well as find unique ways to connect gardening to the curriculum.

Students, parents, and other volunteers are integral in the learning process! A school garden opens up innumerable possibilities to learn new skills and to grow as members of the community in supporting local farmers and gardeners.

4 Steps to Cultivating a School Garden Program

1. Gather Your Team
2. Plan It Out
3. Connect it to the Curriculum
4. Reap What You Sow

Can You Dig It?



It is a vital part of our students' educational career. We not only teach healthy lifestyles, but help encourage trying new foods, teach life skills, do hands-on learning activities, create healthy, made from scratch meals, and definitely bring smiles to every child's face!

We are lucky to have such a positive group working to make students be the best they can be!

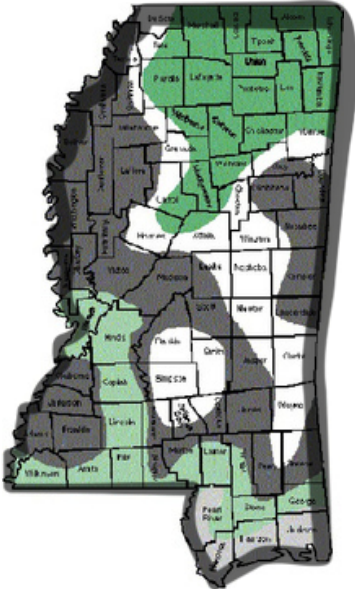
- teacher, Oxford School District



2. Plan It Out

There are 4 main decisions that must be made.

When do you want to plant?



Once you've gathered your team, it's time to coordinate the logistics. It is especially helpful when all members of the team and volunteer force are able to communicate and through a common source, whether it be a weekly email, newsletter or otherwise. Coordinate an introductory planning meeting and choose the date that your team will break ground!

Helpful tip:
Always call 811
before you dig!
 to reduce the risk of utility line damage to less than **1%**

What do you want to plant?

Refer to the diagram to the left and identify the county in which your school is located and visit http://msfarmtoschool.org/uploads/Mississippi_Growing_Gardens_Calendar_.pdf to view the best times of the year to plant certain fruits and vegetables. Keep track of these schedules to yield the best harvest. Decide on your options with the students in mind, but be conservative - you can always expand your garden later!

There are four distinct planting zones in Mississippi. If your school is located in the **northeastern** section of the state, this may be your planting schedule:

Start growing Indoors			Transplant to Outdoors					Harvest			
Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	broccoli						broccoli				
			corn								
			squash								
	carrots						carrots				
	tomatoes										

Where do you want to plant it?

When deciding on a location for your school's garden, plan it out to meet these three criteria:

- Will this plot receive plenty of sunlight throughout the day?
- Is this plot close to a source of water?
- Is this plot visible from the road and from inside classrooms?

While we want our garden to be happy and healthy, we also want it to inspire our students and faculty daily. In order to encourage and maintain community interest and involvement, place it in a location that will be seen by everyone throughout the year!

How do you want to plant it?

Have a few people within the group sketch out plans for your garden. Will it have raised beds, vertical beds, or will it be in-ground? Remember, with your school's grant, the Mississippi Farm to School Network may provide the funding for all necessary initial expenses related to the construction of the garden. See the Mississippi Farm to School Network's "**Master Garden Supply List**" at the end of this guide.

3. Connect it to the Curriculum

A school garden can be used to further understanding and exploration of subjects already being taught in the classrooms. Discuss ideas with your garden team and decide how and when teachers and their classes will interact with the garden throughout the week. Gardening can provide a hands-on approach to learning subjects all across the curriculum, including mathematics, science, English and - of course - health and nutrition. While the curriculum depends on the age of the students, here are some ideas to start your brainstorming process.

Teacher Notes:

Mathematics:

- Learn the basic concepts of the metric system by measuring the height of each plant as they grow. Use this to calculate growth rate.
- Measure the parameters of the plot and find the area of the garden and the volume of soil in your raised bed.
- Record the number of seeds that were planted and make predictions about how many vegetables each plant will produce. Divide the number of vegetables by the number of students, to make predictions about how many vegetables they will get to bring home upon harvest.
- Cook a recipe in the class that requires some of the fruits and vegetables that you have harvested. Use common measurements to teach students addition and other mathematical concepts.

English:

- Record an entry in a daily garden journal.
- Write letters to local businesses to inform them about the school garden program and ask for donations.
- Write research papers about a plant in the garden using knowledge learned throughout its life-cycle.
- Study new vocabulary about gardening.
- Write a poem about a favorite fruit or vegetable!

Science:

- Observe the life cycles of plants.
- Learn why the earth and humans need plants to survive.
- Learn about the parts of a plant and their functions.
- Investigate how plants use energy from the sun to create food.
- Learn about genetic traits and how they are either inherited or caused by the environment. Identify examples of both in the garden.
- Record the weather in your area and predict how this will affect the plants in the garden.
- Study the importance of crop-rotations.

Health & Nutrition:

- Study the nutritional value of the fruits and vegetables in the garden.
- Record the foods you eat and determine what could be substituted with the food grown in the garden.
- Coordinate a cooking lesson with the school's kitchen staff using garden-grown fruits and vegetables.
- Discuss how and why certain foods from the garden can replace the less nutritional ingredients in a dish but still result in the same flavor.
- Conduct a blind taste-test to compare produce from the grocery store with those grown in the garden.



4. Reap What You Sow

School gardens are tremendously popular, but these programs often face a major question concerning whether they can continue from year to year - **does our school have the necessary funding to justify continuing its school garden program?**

Do not be afraid to **reach out** to the community. In our experience, when students **write letters** to local merchants informing them about their wonderful new school garden, it is not uncommon to receive donations in support of the program. At the state level, **get a sponsor** that will supply materials to local schools in exchange for publicity – candidates include seed companies, large retailers, commercial farms, garden centers such as Lowe's, Home Depot, Walmart and nurseries. You may also consider **selling the harvested produce** to school faculty and parents or at a local farmer's market to raise money that can then be reinvested into the garden.

By following the four easy steps in this guide, your school garden is well on its way to both fruitfulness and programmatic sustainability. From gathering your team and planning out the garden - to connecting it to the curriculum and actively maintaining relationships with its supporters, you are sure to reap what you have sown!

Final Notes...

Once you've completed the process of creating the garden on your school's campus, be sure to plan a special event and invite everyone who helped your school build the garden. Don't forget to alert the local media and provide your own coverage of the garden through your school's dedicated social media channels.



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The REAL Benefits

Student Nutrition Behaviors:

- Improvement in early childhood and K-12 student health behaviors, including choosing healthier options at school meals, consuming more fruits and vegetables through farm to school meals and at home (+0.99 to +1.3 servings/day), consuming less unhealthy foods and sodas, reducing screen time and increasing physical activity.
- Increase in fruit and vegetable consumption among those with the lowest previous intake.
- When schools offer school gardens, 44.2 percent of students eat more fruits and vegetables.
- Demonstrated willingness to try new foods and healthier options (in early childhood and K-12 settings).
- Tripled amount of fruit and vegetable consumption when students participate in hands-on, food-based activities.
 - Minimized diet-related diseases in childhood such as obesity and diabetes through the promotion of eating fresh fruits and vegetables, specifically for high-risk, low-income students.

Education:

- Increase in knowledge and awareness about gardening, agriculture, healthy eating, local foods, nutrition, growing cycles, seasonality and other STEM concepts (in early childhood and K-12 settings).
- Enhanced overall academic achievement in K-12 settings, including grades and test scores; increase in opportunities for physical activity and social and emotional growth; increase in school engagement.
- Provides children with an understanding of agriculture and the environment; provides children with opportunities for social and emotional growth; improves life skills, self-esteem, social skills and behavior.

Public Health:

- Improvement in nutrition habits, environmental awareness and health-related knowledge.
- Increase in willingness to try and consumption of fruits and vegetables at an older age due to gardening at a young age.
- Increase in access to fruits and vegetables; increase in planning and preparing meals at home.
- Increase in ability and interest in incorporating healthier foods into family diets and guiding children in early childhood and K-12 to make healthier choices; positive changes in shopping patterns reflecting healthy and local foods.
- Increase among young children in asking their families to make healthier purchases.



For citations and more information, visit <http://www.farmtoschool.org/Resources/BenefitsFactSheet.pdf>



Mississippi Farm to School Network

The Master Garden Supply List:

Created By Gardeners, For Gardeners

Building Materials, Fencing Materials & Other Planting Containers: lumber, drill, screws, staple gun, staples, cement (QuickCrete), aviary wire, window boxes, small and large pots

Tools (for Garden Team & Students):

gloves, rakes, shovels, spades, small spading forks, aprons, buckets, a wheelbarrow, small watering cans, storage containers for harvested produce, stakes

Soil, Mulch & Compost: locally-sourced soils, generic brand soils, woodchips, pine needles, compost piles

Watering & Irrigation: watering hoses, hose nozzles

Seeds, Plants, Saplings, & Seedlings: packs of fruit and vegetable seeds, seedlings, bushes, vines, trees

Educational Resources: garden-based resources/ textbooks, PH soil test kits, etc.

IMPORTANT:

Not all of these items are required for every garden. This list is meant to get your ideas flowing!



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The Mississippi Farm to School Network works to connect farmers with schools in order to bring Mississippi products to school cafeterias. We seek to strengthen the local agricultural economy and educate Mississippians on the importance of eating locally-grown, nutritionally-dense foods. By gathering a diverse community of farm to school advocates, the network strives to reach all students and their families.

Learn more at <http://www.mississippifarmtoschool.org>