

Checklist for Starting a School Garden
Prepared by Dorothy Mullen (Dor@TheSuppersPrograms.org)

Check off or fill in the blanks. Any place you don't know the answer is where the trouble is likely to come from.

Stakeholders

School gardens rise and fall on the relationships of the people who make them happen. Cultivate the relationships like you take care of the soil. We have found that the best "way of being" is to "become water" and flow into the areas where it is possible to start. Particularly where administrators have had bad experiences – like parents making a garden, moving on, and leaving a weed patch – fighting or pressing will just make things worse. If they don't care about nutrition but they're into history, start with a colonial herb garden and teach colonial times, the kids will find plenty to eat while they're out there.

___ Administrator

Non-negotiable. Principals can approve or deny teacher training time, determine use of space, dedicate funds. It is very important to know what he/she cares about and stay on that page.

___ Teachers

At least a few with buy-in is non-negotiable. Even if teachers do not drive the garden, they will decide if the children will go out there. It is very important to know what they care about and make sure the garden provides enough of that.

___ Students

Assumed. Old enough students can be a great source of labor. Request parents or other adults volunteer some time assisting at after school garden club and work days to learn with and from the children.

___ The coordinator

The buck-stops-here-person, non-negotiable. Who is the identified person or small group that will deal with the life or death issues of a living classroom when details fall through the cracks or assignments are not clear.

___ Team

Of the above, who will serve as the steering team to make sure the non-negotiable requirements of the garden are met.

___ Parents

At least a few is helpful but may not be necessary. Many of the tasks can be performed by anyone who is willing to devote the time, but only teachers and administrators decide if the children will use the garden. Parents can make it easy for others to say yes by understanding institutional priorities and teaching lessons that coincide.

___ Cafeteria staff or food service

May not be necessary for sustaining the garden, but will have to be on the team if food and nutrition education or garden-to-table are priorities. In any case, good relationships should be courted as an investment in the kids' food future even if this is not a current school priority. Many of us have gotten farther with school gardens than with trying to fix the lunch room.

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- ___ Local Farmers
Again, they may not be necessary to sustaining an instructional garden, but if improved cafeteria food is part of your vision, farm to school is in your future.
- ___ Community Volunteers
Helpful but may not be necessary. Gardens attract attention from the community. There may be a lot of talent in the form of garden clubs, Master Gardeners, potential donors of gifts and services. If none of the school insiders understand the horticultural needs of the garden, this will have to come from the community.
- ___ Custodian
May not be necessary, but he or she should be on the team to be sure certain maintenance requirements are met.
- ___ Nurses
Not necessary, but potential great allies of the process. School nurses and health teachers will find a lot of good curriculum connections for health, safety, nutrition, and hygiene in the garden. In Princeton we have started doing nurse-led field trips to the local whole food store and tying them in with lessons in the herb garden.
- ___ Librarian
May not be necessary, but the librarian is a great ally of the process.
- ___ School and community gardeners in neighboring schools and other towns.
Connect to the people who have what you want and find out how they got it. Make a list for your area. You can share resources. You can form a cooperative. You can create your own non-profit and act as your own fiscal agents. You can use each other as precedents to show the people in power how the Joneses are doing it next door.

Purpose

- ___ Articulate what the garden is for.
If several people are in it for different reasons, can they agree on the purposes of doing a garden. Are the priorities science curriculum, food production, waste reduction education, watershed education, beautification, improving nutritional status, learning where food comes from, history lessons, or spontaneous learning? What does each of the stakeholders want out of the process?
- ___ Articulate the values that drive the garden.
For example, will it be organic, will commercial fertilizers be allowed. You may need this later to help decide from whom you will or will not accept donation.

Location

- ___ Space.
- ___ Be sure there is no problem related to wells, septic systems, in-ground tanks.
- ___ Soil must be tested for lead if there are pre-1978 buildings close by.

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- ___ Area for containers, if space is very limited.
- ___ 8 hours of direct sun for fruiting crops and 6 hours for leaf crops and herbs. Place a sheet of paper in what you think is a sunny spot and record the sunlight hours through the day.
- ___ Water source, must be very convenient. Watering takes place ideally very early in the day, no close second. Consider mulching to reduce use.
- ___ Drainage. Avoid damp spots and steep spots. If drainage is not good, do raised beds.
- ___ No competition from trees and roots for water, soil and sun.
- ___ High visibility location for PR value. You want the public to see your garden.
- ___ Located close to the school or teachers may not use it as readily.
- ___ Protection. What might threaten the gardens, people? pests? Plan for protection from whatever the local threat is.

Size

- ___ Start small. Make it beautiful. Have a vision for how it will expand.

Design

The design will be driven by the purposes the garden is to serve, the desires of the team, the available space, and the needs of the plants you select. Most of the early effort should go into care of the soil, then any design will thrive.

- ___ Make a map. It will have many uses including mapping crop rotation.
- ___ Make sure you can afford the design you want or have a means of raising the money.

Elements for designing the garden as an outdoor classroom include:

- ___ Garden beds, 3 (at most 4) feet wide, with clear wide pathways for trampling feet.
- ___ A sitting area, including tables, preferably out of the harsh sun.
- ___ Compost area.
- ___ Tool shed or storage area.
- ___ Cold frames or green house, if using them.
- ___ Good signs.
- ___ Fencing if needed.

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- ___ Scheduling classes.
- ___ Instructional materials (lenses, books, field guides, seeds and starting materials, scales, measuring devices).

Money

You can spend from \$300 if you get a lot of the material donated to \$16,000 for a perfect, commercially installed ready-to-plant garden. If you spend less money, you'll spend more time. If you spend more money, you may miss out on certain ecology lessons, like growing your own compost. In any event, if your funds are limited, the majority of the effort should go into the soil preparation. Every site is different, but be sure to cover the basic elements when making up the budget:

- Expenses related to locating it (making water reach the garden, clearing land, tilling the first year)
- Soil test kit and amendments
- Organic material to improve soil, compost
- Tools
- Means of watering
- Materials for raised beds, if using
- Seeds, starts, plants
- Supports
- Protections, fencing, row covers
- Fertilizers
- Pest controls, if using
- Instructional materials, field guides, books
- Expertise, if the volunteers are beginners
- Material for walkways
- Cold frames, green house
- Mulch
- Containers
- Labor

Soil Preparation

Decisions will have to be made that you'll have to live with for a while. You may want a few raised beds the first year while you start composting and working your own soil. You may want to plant a fall crop of green manure, like winter rye, to improve the soil. Attention to the soil is the most important point of starting a garden, unless you are purchasing perfect soil for raised beds. You will want to add lots of organic material (compost) and you will want to start with a soil test to guide your decisions. Rototilling may be necessary the first year. Soil preparation is beyond the scope of this checklist; take it seriously. Here is a good link: <http://www.mgofmc.org/docs/VegGardBasics08.pdf>.

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Horticultural Needs

In addition to the obvious sun, water, and space needs, each plant has specific requirements.

- ___ Did you do a soil test? It will inform you about toxic materials in the soil and deficiencies. If not, do one, unless you are purchasing perfect soil for raised beds in which case you will still need to fertilize. The extension office for your county has kits. In most counties, Master Gardeners man a helpline and can interpret the results. In Mercer County: 989 6853.
- ___ Do you know the needs for amendments, based on the soil test?
- ___ Timing the start up. Don't start working soil until a handful crumbles nicely in spring. If it is still in sodden clumps, it's too early, you'll ruin the soil structure.
- ___ What is your zone? Know what grows in your geographic area and when.
- ___ What are your last frost date and first frost date?
- ___ How is the garden oriented? You want to face south, with tall plants on the north side and short plants on the south side to maximize sun light hours.
- ___ Buy or order seeds and plants with consideration to planting dates and needs of different plants. Read the labels.
- ___ Tools: Very few tools are actually required, but gadget lovers could go nuts on tools. Depending on how many children will be working at a time, you'll need multiple rakes, shovels, trowels, clippers, scissors, hose, forks for turning soil and compost, a mallet for pounding in stakes, wire clipper, measuring tape, thermometers for air and compost).
- ___ Supports: What are your needs of trellises, ladders, etc.
- ___ Maintenance schedule: watering, weeding, staking, fertilizing, pruning, bug picking, turning compost, mulching, cover crop planting in fall.
- ___ Schedule workdays for volunteers.
- ___ Harvesting and subsequent planting in the emptied bed.
- ___ Crop rotation schedule.
- ___ Schedule orders.
- ___ When googling: add the word "extension" to any search to get higher quality information. Information will come from State land grant universities.

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Curriculum Needs

- Must this garden provide a setting for learning things that have to be taught or is it more a setting for spontaneous learning, both?
- Are the curriculum interests of the participating teachers well represented in the design?
- Have a means of collecting, storing and sharing good garden lessons.
- Match to State education standards. The more of this that is done, the easier it is for teachers to participate. With variation by district, their lives are more or less driven by standards in the public schools.

Types of Gardens

For elementary schools, the biggest bang for the curriculum buck is an herb garden. You can combine many elements into one garden.

- Science Lab.
- Setting for spontaneous learning.
- Food production, "snack" destination, source for food service.
- History gardens (Shakespeare, colonial, Three Sisters).
- Herb Garden.
- Shade plants.
- Native grasses and plants.
- Butterfly or pollinator gardens.
- Ecosystem.
- Heirloom.
- Nutrition and Health.
- Flowers.
- Math gardens, perhaps raised beds.

Safety Rules

- Set up the rules that protect the people.
 - Use of senses for plant identification
 - Don't eat anything until you are sure it is food

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- Know which plants have both edible and poisonous parts (leaves of rhubarb and the tomato plants itself)
- Know which children have allergies to plants, pollen, or stings and act accordingly
- Keep a supply of sunscreen (know if anyone is allergic). In high heat, have kids wear hats and shirts with sleeves
- If there is an after school club when no nurse is on duty, have all parents signed off, all allergies recorded, a first aid kit on hand and drinking water
- No bare feet or flip flops, proper shoes to protect from cuts and stings
- Add only plant materials to compost to keep out vermin
- When using tools stay your arm's length plus the tool length away from the next person
- Walk while holding tools and or identify which tools are for adults only
- Discuss pest controls and why we use what we use

___ Set up rules that protect the plants.

- Keep feet on pathways
- Use two hands to pick plants so you don't uproot them, one is to hold the plant and the other is to nip off
- Discuss pest controls, keeping the gate shut
- Have 3 kids on the hoses, and rotate positions so one is controlling the water and two are preventing the hose from knocking over the plants
- Practice the above like drills

Community Outreach and Involvement

___ Consider what funds, goods, expertise, and services do not come from within the school community and whether you want the donation of a thing (for example, tools or machinery) or the service (for example, rototilling).

___ If your garden is about food, see if you can get local restaurants involved with cooking, restaurant tours, tastings, and fundraisers.

___ Reach out to the greater community to help meet these needs. Local green business in Princeton have loved the PR value of supporting these projects generously.

___ Have standards for involvement set ahead of time (Would you accept all donations, including grants from companies that sell pesticides you wouldn't use or processed foods that are against the values of the project).

___ Consider who will take photographs and write press releases or letters to the editor. Be sure to follow school policy about parental permission to use images.

___ Consider how you will inform parents and the school community about garden activity.

___ Consider your system for requesting and thanking donors.

___ Identify the talent in the community, garden clubs, Master Gardeners, environmental groups, environmental groups at the other schools in the district, 4-H, parents and friends with gifts for carpentry or other services.

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Events

- ___ Plan seasonal events, scripted tours for the public, tomato tastings, pesto day, colonial day fair, tea harvest and drying, harvest dinner, poetry readings, garden cycle tours and fund raisers like plant sales.

Challenges

- ___ People move on. (If the garden is dependent on the good will of too few people, the principal may be left with a weed patch when those folks move on. Tell the principal up front what the exit strategy is so he or she can feel comfortable saying yes to a garden.)
- ___ Bad Soil. Raise the beds. Even where there are toxins in the soil, a sufficiently raised bed with purchased soil produces safe food.
- ___ Summer care. Offer parents and volunteers picking rights and designate an area for them to grow food in exchange for summer volunteer hours. Or plant spring and fall but not summer harvest crops and vastly reduce the needs of the garden during summer break.
- ___ Payments. The P.O. system at school may be too slow to deal with the immediacy of garden needs. Consider store credit or an account at the local nursery. They may give you a discount. This method greatly reduces your bookkeeping needs.
- ___ Receiving grants The Princeton School Garden Cooperative got its own 501 (c) 3 status so that we can receive grants. Working with another non-profit as our fiscal agent did not work for us, and getting our own non-profit status has simplified a lot. Districts or area co-ops could go together to form one.
- ___ Curriculum. Different stakeholders may have different ideas about how much the garden must be driven by curriculum and how much it should provide opportunities for spontaneous, seasonal learning, or food. This needs to be discussed.
- ___ Space limitations. Straw bale gardening (using a series of bales with 6 inches of soil on top as a raised bed) and containers (like Earthbox) provide options for schools with extremely limited space.

Information Sources

Center for Ecoliteracy. "Getting Started" <http://www.ecoliteracy.org/>

Junior Master Gardeners. Garden Lessons (Texas A and M): <http://jmgkids.us/>

Mercer County Master Gardeners. Fact sheets from Rutgers: <http://www.mgofmc.org/>

Princeton School Garden Cooperative Guide for Lessons:
<http://www.prs.k12.nj.us/GardenCoop/GardenCoopGuideNov07.pdf>

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