FIVE STEPS TO GETTING YOUR GARDEN STARTED

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The key to a successful school garden is in the planning. No matter the size and style of your garden, you will need to answer important questions about who will use the garden, where it will be located in order to sustain the plants you plan to grow, and how it will be maintained. The following is a checklist of the five important steps to planning and maintaining a successful school garden.

1) Develop your Garden Vision—start small, but leave room to grow. The critical first step in garden planning is identifying your vision for this new addition. Whether you are imagining just a few containers or a more permanent installation, you need a starting plan. A modest start with the possibility of future expansion is a good plan. And don't forget to include the students in the planning! You want the students to be a part of this project right from the start. Here are some important questions that you will need to answer:

a. How many children/classrooms will participate?
b. In-ground or container garden?
c. Responsibility for maintenance?
d. Start-up and ongoing funding plans?
e. Who is your Garden Team?
f. Role of parent and community volunteers?

2) Get permission and commitment from District, principal, staff, parents, and community—grow support before you grow your garden. Once your group has agreed upon a vision, you need to get the entire school community on board. Their permission, support and assistance will be critical to the success of your garden. Here are some groups that you will need to bring on board:

a. **District level**—Superintendent, Maintenance and Operations
b. **School level**—Principal, teachers, PTA/PTSA, janitorial staff
c. **Community**—Potential supporters/donors from the community. Let them know how supporting the garden can help them—offer signage in the garden, Grand Opening honors, service to the community, thank you letters/posters, media coverage.
    i. **City**—City Council, City Manager, Parks and Recreation and Public Works Departments
    ii. **Local businesses**—nurseries, lumber yards, hardware stores, banks, health organizations, supermarkets

3) Siting your Garden—the DO or DIE decision for your garden! With the school support behind you, you can now begin to finalize the garden design. Every garden has certain minimum requirements that must be present in order for your garden to grow.

a. **Water**—close, easy access to a water source is ESSENTIAL. The water must be a potable water source—NO RECLAIMED WATER. Reclaimed water is not safe for consumption or

handling by students. The water source must be close by because it will be used almost daily. You do not want students to be dragging hoses across the school yard everyday.

b. **Sunlight**—minimum of six hours of DIRECT SUNLIGHT a day is necessary to grow most vegetables and flowers. Check potential sites throughout day and anticipate seasonal changes in the sun's location. Watch out for shading by nearby trees, buildings, hills, etc.

c. **Access**—the site should be close to classrooms and easily accessible. If the garden is too far away from classrooms, it will be difficult to get and keep teachers involved in the garden.

d. **Size and Type of Garden**—what type of garden fits your site, budget, personpower?

i. In-ground gardens

1. **Soil quality and safety**—if you plan an in-ground garden, be sure you have healthy soil.
   a. What was previously in this location? Watch out for potential toxins from prior dumping, asphalt, herbicides.
   b. Are there signs of life in the soil currently? Weeds and bugs are good!
   c. Good drainage—no flooding or standing water to suffocate your plants.
   d. Use a soil test to confirm the soil is safe and determine how to improve its viability—home versions are available at many nurseries or online.
2. **Garden bed design**—if you build planter boxes, be sure you use sturdy products that will hold up (recycled plastic lumber or redwood or cedar) and beware of products that leach toxins (no pressure treated wood or old railroad ties).

ii. Container gardens

1. **Soil quality and safety**—you will need to purchase or prepare a well amended potting soil. Have your local nursery or landscape professional advise you on a good soil mix for your area. Avoid all soil and amendments that contain potentially toxic by-products, such as sewage sludge.
2. **Type of containers**—many great alternatives are out there—be creative and try to reuse or recycle! Old wine barrels or nursery tree boxes can be great and cheap. Beware of leaching containers (containers lined with tar or treated woods are toxic to plants and people).
3. **Size of site**—can the site fit your garden plan? Do you have plenty of room for students to work, walkways between plantings, areas to sit for group discussions, places for compost or tool storage?
4. **Security**—be sure the site is located in an area that will discourage vandalism, and minimize damage from playground havoc, dogs, and foot traffic—consider a fence to create a sense of place.
5. **Permanence**—will the site remain available into the foreseeable future? Or, is your garden design easy to relocate if a permanent site is not available?

4) Building Your Garden—work hard now, work less later. Now the fun begins—it is time to get dirty! If you are installing a container garden, purchase the containers and the soil, place the containers where you want them and fill them with soil (a container full of soil is hard to move!). With an in-ground garden, you will need to do quite a bit more work—but your hard work will pay off. The Law of the Farm is at work here—thoughtful preparation and hard work in preparing the site will save you many headaches and frustration as the garden starts growing.

a. **Clear the land**—start with a clean, flat, weed-free site! Weed the site, water it well, wait three weeks for remaining weed seeds to sprout, and then weed again—now you know it is clean.

b. **Lay out the garden**—locate the planting beds, primary walkway (must be 42" wide to be wheel chair accessible), working areas between beds (36" is minimum to enable children to work in adjacent planting areas simultaneously), locate a composting area, tool storage area, seating or group area.

c. **Build the Planting Beds**—raise those plants high!

i. Types of Planting Beds.

1. **Raised beds**—a raised mound of soil. This bed is the simplest and cheapest to build, but it is the least secure and stable when you have kids running around in the garden and is the hardest to maintain. Build by digging out paths between beds down 4-8" and mounding that soil into the bed area. Mix your soil amendments into the mounds. Line the paths between the mounded beds with mulch or straw.
2. **Planter boxes**—build the boxes yourself (use recycled plastic lumber or a wood that holds up well to moisture such as redwood or cedar) or purchase pre-made boxes made from recycled plastic. By creating a physical barrier between your garden and the rest of the garden environment, these beds minimize weeds, keep plants in and kids out of the planting area, and are easier to work in and maintain.

ii. Size of Planting Beds

1. **Width**—Raised beds are generally 18-20 inches wide. Planter boxes should be no more than 4 feet wide if children can work from both sides of the box, or 2 feet wide if the box is only accessible on one side.
2. **Length**—Raised beds can be any length. To preserve the structural integrity, planter boxes should be no longer than 8-10 feet.
3. **Height**—Raised beds should be 4-8 inches high. Planter boxes sunk in soil should be built at least 10-12 inches high. This allows you to sink the bottom 4-6 inches in the ground to minimize weed encroachment and still be at least 6 inches finished height off of the ground.
    a. Wheelchair accessible height is 28 inches.
    b. Wood or plastic beds placed on pavement should be at least 30 inches deep in order to prevent the heat of the pavement from overheating the roots and to minimize the loss of moisture.

iii. Soil—the better your soil, the better your garden will grow! The garden saying is that you plant a 25¢ plant in a 75¢ hole.

1. **Clean dirt**—no weeds, rocks, or debris
2. **Soil amendments**—these improve soil structure to improve water retention and absorption, provide good drainage, and supply important plant nutrients. Use a soil test or consult with your local nursery or landscape professional for recommendations specific to your site geology. Cover entire bed/box with at least 3-4 inches of amendment and work into soil down about a foot. Soil amendments may be purchased in bags or purchased in bulk by the yard.
3. **Fertilizers**—if using fertilizers, be careful not to use too much or you can damage tender young plants.

d. **Irrigation**—make watering easy so it gets done! Providing enough water at the right times is critically important to a successful growing season. Irrigation can be as simple as moving a hose, or as complex (and more costly) as installing drip system on an automatic timer that keeps the garden watered during school breaks and weekends. Here is a brief description of some options.

i. **Hose and nozzle.** This system is the most time consuming and least dependable. It works fine with a container garden, but is not the best option for a large in-ground garden. Adult supervision will be needed for younger students to ensure that the plants get enough water (and the children *don't* get watered). Dig a small hole in the soil after a watering session to check how deep the water has gone. Show students that water on the surface does not necessarily mean there is enough water down deep to feed the roots.

ii. **Hose with sprinkler.** A sprinkler attachment on a hose can make it easier to be sure that the water gets to all the plants. Proper location of the sprinkler will be critical.

iii. **Soaker hose.** Soaker hose lets water percolate through it into the garden. Unlike sprinklers which waste significant water due to evaporation, soaker hose delivers the water right to the soil. Test the radius of the water seep to be sure that the water is reaching where you need it.

iv. **Drip irrigation system.** This is the most efficient way to water your plants. Drip tubing brings the water wherever it is needed, and thoughtfully selected heads deliver the water in the proper quantity and location. Contact local professionals to help you design and install the system.

e. **IrrigationTimers.** "Egg" timers, battery operated or electrical. Irrigation timers come in many forms. If you have access to electricity in the garden, an electrical timer is the most reliable. Where you do not have electricity, you may use a battery-powered timer or an "egg timer" that you manually turn on for a set time and then it automatically counts down to off.

f. **Mulch, mulch, mulch!!** Minimize water evaporation and weed growth by providing a significant (3-4 inches) of mulch over your beds. Straw, leaf mulch or clippings are all good choices. Check with local gardeners to find out what they recommend that is cheap and easily available.

g. **Walkways**—Cover the walkways between your beds with shredded tree mulch, straw, gravel—anything to help keep down weeds and minimize muddy shoes.

5) Planting the Garden. The time for planting your garden is finally here!! Here are some tips to make your planting successful.

a. Planning your planting.

i. Choose the right crops for the right season and your region.

ii. Sowing seed directly or transplanting nursery seedlings? What you plant will depend on a number of factors: the local climate, time of year, desired growing time to harvest, and the type of plants you plan to grow. For example, a school garden in sunny Southern California can plant lettuce from seed in February and eat a delicious salad in May. A school in Michigan will have snow on the ground in February—they will need to start seeds indoors or buy nursery transplants for planting outside in late spring in order to eat salad in May. Again, your local nursery or an experienced gardener can help you decide what to plant.

iii. Find a theme—tie your planting to your curriculum or state standards in science, social studies, language arts, art, favorite story. Plan a garden that will enrich the school curriculum.

iv. Follow the directions on the seed package or transplant for the proper planting depth and plant spacing.

b. Working in the outdoor classroom. Ensure a successful planting by setting clear direction for students BEFORE you go outside. Setting expectations in advance will ensure the experience is positive for all.

i. Establish and review class rules for working in the garden. Be sure everyone knows how to work safely in the garden. In general, rules for the classroom are the same as in the garden—no yelling, climbing, running, etc.
ii. Review the day's garden activity so everyone knows the plan.
iii. Volunteers, volunteers, volunteers—the more help the better! Adult supervision will be critical to getting the work done well and in a timely fashion.

c. Tools needed to get started.

i. Trowels. Once the gardens are built, the only tools for a student planting will be a trowel for nursery transplants. Holes for seeds can be made with little fingers.
ii. Hose with a spray nozzle for watering newly planted beds, spot watering as necessary, and garden cleanup.
iii. Volunteers
iv. Enthusiasm!

d. Garden Maintenance.

i. Have a supervising adult(s) oversee the garden maintenance if it is done by students. They need to learn when to water and what to weed (lettuce and weed seedlings can look a lot alike!).
ii. Assign students to the four jobs in the garden—Water, Groom (weeding), Pest Patrol, and Report.
    1. **Pest patrol**—One of the primary lessons of a school garden is environmental stewardship. For the health of the children and the earth, a school garden needs to be an organic garden. Your local nursery can advise you on organic methods for dealing with common garden pests and plant diseases.
    2. **Report**—Keep an ongoing record of the successes and struggles in each garden season. Use this information to improve your garden plan for the next year. Garden journaling is also a great way to teach language arts in the garden!

e. Celebrate your harvest! You all have worked so hard!! Be sure to celebrate the experience with a special event. Invite all the folks who helped to celebrate with you and alert your local paper. Keep your garden GROWING GREAT!