

# Basics of School Gardens

## Assemble a Team

Successful school gardens are planned and maintained by a group of interested parties. When community interest is wide, long-term success of the garden is more likely. You will need to plan how work is to be shared by students, volunteers, and staff both during the school year and during breaks.

## Select a Good Site

*Consider:*

- Is there a road or parking lot which students will need to cross to access the garden?
- Are there other safety concerns?
- Is the garden near access to water, can the site be irrigated?
- Can a shed for tools and materials be erected near the garden?
- How much light does this space receive during the growing season?
- How is the soil drainage?
- What is in your soil (heavy metals, pH, nutrients)? Get soil tested through UMass Extension.
- Will wildlife be able to access (and eat) your garden?

## Garden Design

- What are your resources (financial and human) for yearly maintenance?
- How much space can you use? Physical limitations may be set by the school, but also by how much money can be spent on plants, soil amendments, bed materials, and mulch, as well as the time that can be dedicated to maintenance. Consider plans for future expansion.
- Do you want space for storage, a compost pile (great for education), classroom seating?
- Do you want raised beds or to plant in the ground? If raised beds, be sure that students can reach at least to the middle of each bed.
- Consider accessibility when designing beds and paths, and selecting location.
- Make sure you have garden paths in which kids and adults can move and work, you can maintain them with wood chips, tile, stone, or lawn (and they are wide enough to be mown).
- Is your garden near access to water for hoses? Can you afford and fit drip irrigation. Timed irrigation in the summer can be a plant-life saver!
- Is wildlife or trespass a threat to the health of your garden? Do you need a fence?
- Are you planting a pollinator garden? A native garden? A vegetable garden? Will it include annuals, perennials, shrubs, and/or trees?

## What You Will Need:

- Amazing people: administrators, teachers, parents, volunteers (reach out to local garden clubs, garden centers, and Master Gardeners)
- Financial Support
- Trellis, fencing, raised bed materials, seating, pathway materials
- Garden tools, tool shed and tillers
- Soil, compost, fertilizer
- Buckets, sprayers, water hose
- Seeds and transplants
- Educational materials
- Weed and insect controls

## Preparing Your Garden

- Orient teachers and volunteers to the site, and recruit their help in orienting students to the garden's use and parameters. Communicate to educators what garden work is being done and what is growing so that lessons can connect to the garden. Consider training volunteers to assist teachers or to run activities that complement garden work.
- Schedule volunteers (parents, teachers, administrators, and others) for workdays and ongoing maintenance such as weeding and watering.
- Clean your lot, break ground/build beds, add good soil and test your soil! *Mark paths and space for compost before filling with soil!* Many schools have luck with the lasagna method (layering cardboard and newsprint on the ground to impede the growth of weeds and grass, and layer several inches of soil on top of the paper and cardboard for new plantings). Over time, the cardboard and paper breakdown, and roots can grow through it to reach deeper soil.
- Lay irrigation if you have it.
- Plant!

## Decide What to Grow

- Review space requirements for your plants.
- Select the goal(s) of the garden; what will be taught there? Life cycles, nutrition, food chains, weights and measures, creative writing and expression, history, geography, predator/prey relationships, nature journaling, scientific method... grow to complement these goals.
- Can students design the garden plan? An opportunity rich with lessons using garden dimensions and budgets.
- Consider when the garden will be used. If it won't be used in the summer, don't plant crops such as tomatoes, eggplant and peppers. Fall crops such as beets, Brussels sprouts, cabbage, carrots, pumpkin and squash require less summer maintenance and students can plant them in the spring to return to harvest in the fall. Quick crops such as chard, peas, radish, and spinach can be planted and harvested in the spring. Garlic can be planted in the fall and harvested the next spring. Flower bulbs can be planted in the fall for spring color in ornamental gardens.

- Perennials and woody plants can extend your season and add visual interest to your garden. For vegetable gardens consider including rhubarb, strawberry, asparagus, blueberry and raspberry bushes, sorrel, and fruit trees. For ornamental gardens (including pollinator gardens), consider growing New England aster, daylily, goldenrod, paper birch, ornamental grasses, tradescantia, thyme, and ornamental shrubs.

### **Start Inside: Grow from Seed!**

- Annual flowers can be started in the classroom in April. A sunny window and diligent watering can provide opportunity to experiment in-class and reduce plant costs.
- Veggies can be started inside also, particularly plants with long growing seasons (like tomatoes and peppers).
- Avoid planting seeds that should be direct sown.
- Many native wildflowers (such as shooting star and milkweed) require cold stratification. Begin an experiment in the fall by planting some seeds outside, some in a refrigeration, and some in a warm, sunny area and observe plant health over time.

### **On-going Maintenance**

- Watering and weeding
- Cover-cropping and mulching
- Scheduling volunteers
- Pest-control
- Composting regulating and turning
- Succession planting
- Clean-up
- Annual soil tests and applying soil amendments

### **Are you growing a vegetable garden?**

- Will students eat the produce in the garden? Many schools are not allowed to bring produce into the school. Will you have tastings or 'cook' the food- raw recipes include pesto and salsa.
- Can a local food pantry take donations?
- Consider asking families to lead garden maintenance in exchange for harvested produce, try scheduling them in one-week shifts in the summer.
- Studies report that student consumption of vegetables increase with school gardens, improvement is significantly greater when paired with nutrition education.

### Other Considerations:

- Physical hazards for students and visitors
- Bee stings and insect bites
- Theft and vandalism
- Lighting
- Organic and sustainable practices
- Fertilizers and Pesticides
- Maintaining a compost pile
- Saving seeds from the plants you grow

Source: Green, Will. *School Garden Considerations*, [www.aggie-horticulture.tamu.edu](http://www.aggie-horticulture.tamu.edu), 2018.

Founded in 1829, Massachusetts Horticultural Society is dedicated to encouraging the science and practice of horticulture and to developing the public's enjoyment, appreciation, and understanding of plants and the environment. Located in the historic Elm Bank Reservation, The Gardens at Elm Bank provides a place where people of all backgrounds can come together for inspiration and education.

Mass Hort's public gardens are a place of beauty, discovery, quiet reflection, and appreciation of garden design. Massachusetts Horticultural Society is a 501(c)(3) charitable organization. Please visit [MassHort.org](http://MassHort.org) to learn more about its mission and educational programs.

The Mass Hort Plantmobile visits schools and communities to engage youth in plant science.

Mass Hort's Community Supported Horticulture program supports educators in using gardens as teaching spaces. Our staff will lead workshops in our gardens to teach practical gardening skills. We will also come to your site to lead training and assist with garden plans. Topics include:

- Composting and Soil Health
- Extending the Growing Season
- Pest Management
- Planning New Garden Spaces
- Planting and Harvesting Methods
- Pollinator Friendly Planting
- Seed Saving and Starting

Mass Hort's School Garden Conference takes place in February and provides practical gardening knowledge, assistance in planning garden programs, and curriculum ideas. Educators, parents, volunteers, and school staff and administrators are encouraged to attend.

Learn more by contacting [education@masshort.org](mailto:education@masshort.org) or calling 617-933-4973.