

A close-up photograph of a hand holding a small, green seedling with three leaves in a brown, biodegradable pot. The background is a soft, out-of-focus green. The entire image is framed by a white border with rounded corners.

# GETTING STARTED

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— *Emeril's* —  
CULINARY GARDEN &  
TEACHING KITCHEN

# READINESS AND DEVELOPMENT



A diverse team will help to develop action items that reflect the school community.

## BUILDING A TEAM

The first step toward developing a successful Emeril's Culinary Garden & Teaching Kitchen program is to identify and build a team of motivated and diverse individuals from the school community who will help to implement, grow, and sustain the program over time. It is ideal to begin this process a full school year before launching the program.

Before recruiting members, schools should consider the best structure for the team—including how often to meet and how decisions will be made. If an ideal proposed team member would be unable to meet regularly, or be unable to commit because of the team structure, this person could serve in an advisory role to the team. As the team grows, it is important to share in decision making so that all members are invested and responsible for the goals and action steps established together.

## INDIVIDUALS TO CONSIDER FOR THE TEAM

- School Food Service / Cafeteria Personnel
- Teachers
- Students
- School Board Members
- Family Members (Parents, Grandparents)
- Local Chefs
- Master Gardeners
- School Facilities Managers
- PTO Members
- Extension Agents
- District/School Wellness Coordinators
- Local Community Foundation / NPO Program Managers
- District/School Curriculum Directors

Schools are required to maintain dedicated program staff for both garden and cooking classes. Coordinating the efforts of a successful culinary and garden team requires time and dedication outside of the classroom, and it involves a commitment from students, parents, faculty, and the community.



See Readiness and Development Tools in the Appendix for planning templates and grant reporting forms.

## GROWING THE PROGRAM

Once in place, teams should work together, to complete the School Partner Action Plan and Implementation Timeline. The Action Plan template organizes planning between program implementation and capital improvements. It is designed to help identify team members, set schoolwide goals, plan the steps the team will take for the current and future years, and decide what team members will be responsible for which action steps in order to accomplish the goals.

The action plan should always include goals and plans for program promotion and strategies for sustainability. To develop realistic goals, it is helpful to conduct a SWOT analysis listing the primary strengths, weaknesses, opportunities, and gaps in terms of the school's readiness to deliver program implementation and capital improvements successfully. Opportunities should reflect areas that the school can develop realistically with grant funding in order to take next steps in building out the program over a five year period. Gaps should refer to areas that need to be addressed through outside support, resources, and expertise.

At the end of every school year, updated action plans with implementation timelines, along with a completed School Partner Report Card should be submitted to the Emeril Lagasse Foundation. A minimum of 5 lesson plans that were created using the curriculum scope and sequence and lesson plan templates is required of all school partners for grant reporting purposes.

### **NOTE:**

In the first year of the program, schools will complete the Action Plan Template and Implementation Timeline twice: once in the beginning of the school year and again at the end of the school year. Each year after, schools will only complete these planning templates at the end of the school year.

# CREATING THE TEACHING SPACES



School gardens and teaching kitchens serve as engaging learning spaces for students and are primary elements of Emeril's Culinary Garden & Teaching Kitchen. Food grown and harvested from your culinary garden can be used in the teaching kitchen, academic classroom, in taste tests, in the cafeteria, and at community, family and school events.

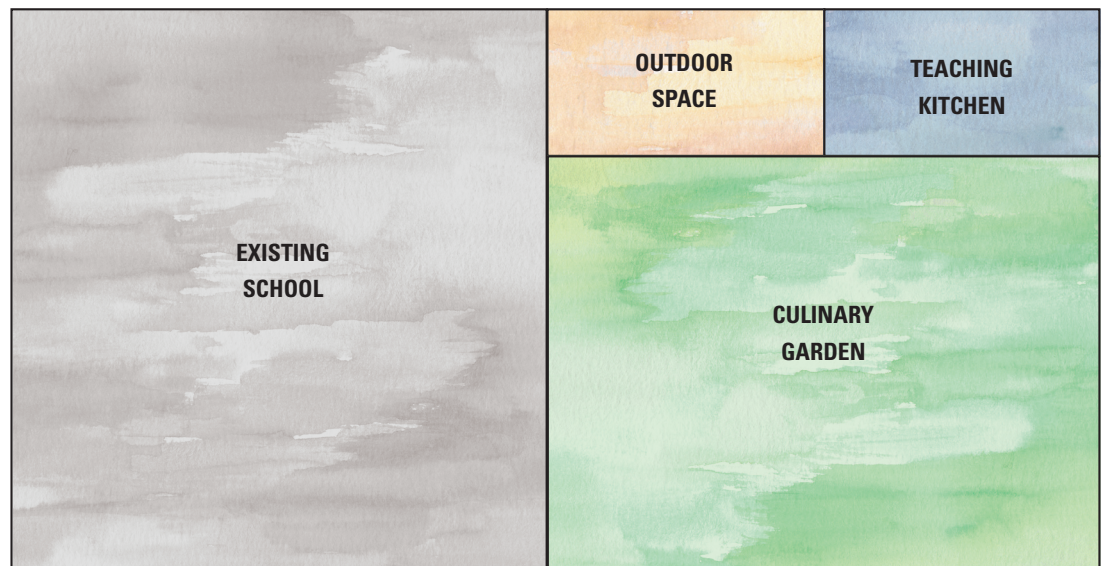
## DESIGN CONSIDERATIONS

This chapter of the playbook is intended to serve as a starting point for design to be performed by licensed professionals. The school's architect, engineer, designer or any other design professional of record is responsible for compliance with any laws or regulations governing the proposed construction for the teaching kitchen and culinary garden.

### CONCEPTUAL DESIGNS

The **conceptual designs** for the teaching kitchen illustrated on the following pages, represent 3 build-out options for the teaching kitchen: a freestanding building, a building addition, and a retrofitted classroom (conversion of existing space). The schools should work with design professionals to select the best option for its architectural footprint and school culture. It is strongly encouraged that the location of the teaching kitchen be adjacent to or within sight of the culinary garden, and the location should be on school property.

#### FREESTANDING BUILDING





**BUILDING ADDITION**



**INTERIOR RETROFIT**



**CONCEPTUAL LAYOUT**

The **conceptual layouts** for the culinary garden and teaching kitchen on the next 2 pages, illustrate how the space can be designed. Each layout highlights key elements, or design standards, that together make up the space. Every school must meet the design standards, regardless of the build-out option it selects. If market conditions exceed the design standards, schools should incorporate enhancements as additional features to the design standards. Additional best practices for planning the garden and kitchen space to meet these design standards can be found in the Best Practices and Guidelines section of this playbook.

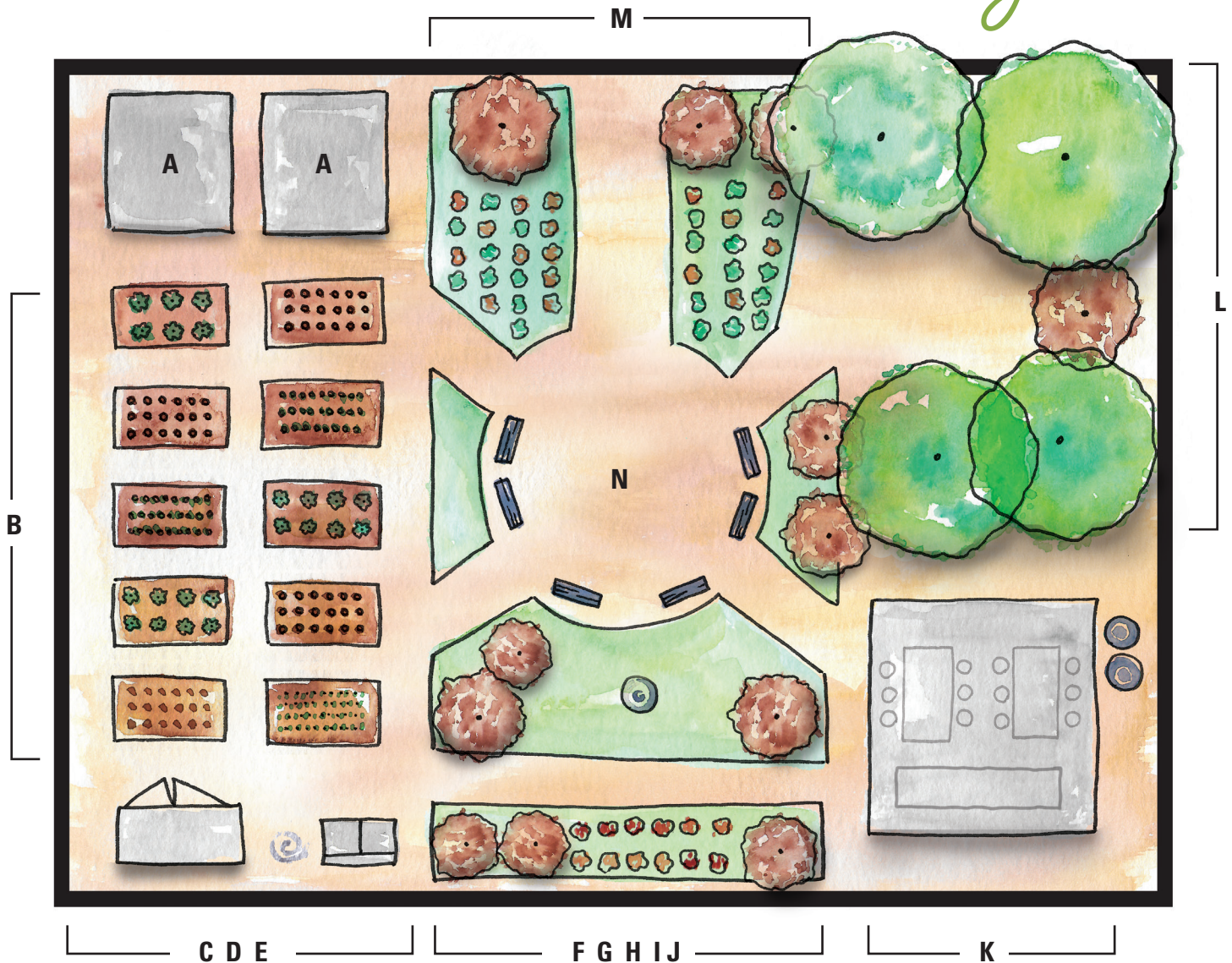
**ACCESSIBILITY (ADA)**

All projects should be designed in accordance with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) as required by the Americans with Disabilities Act (ADA). Specific reference to accessibility design requirements are not used in this book because design professionals are required to ensure the design intent of ADAAG is met throughout the project.

**ENVIRONMENTAL DESIGN**

Emeril Lagasse Foundation strongly encourages green building practices but does not require this of school partners.





**A** Green House

**B** Garden Beds\*

**C** Toolshed\*

**D** Irrigation /  
Watering Source / Hose

**E** Food Prep Sink\*

**F** Perennials\*

**G** Shrubs

**H** Path

**I** Bird Bath

**J** Butterfly & Bird Garden

**K** Covered Shade Area\*

- Hand Washing Station\*
- White board / Instruction board\*
- Work Tables\*
- Rain Barrels
- Food Prep\*

**L** Shaded Area

- Fruit Trees\*
- Shrubs
- Small Trees\*
- Compost\*

**M** Main Entrance (Fits Truck)

- Shrubs
- Perennials\* & Native Plants
- Annual Beds

**N** Central Gathering Area\*

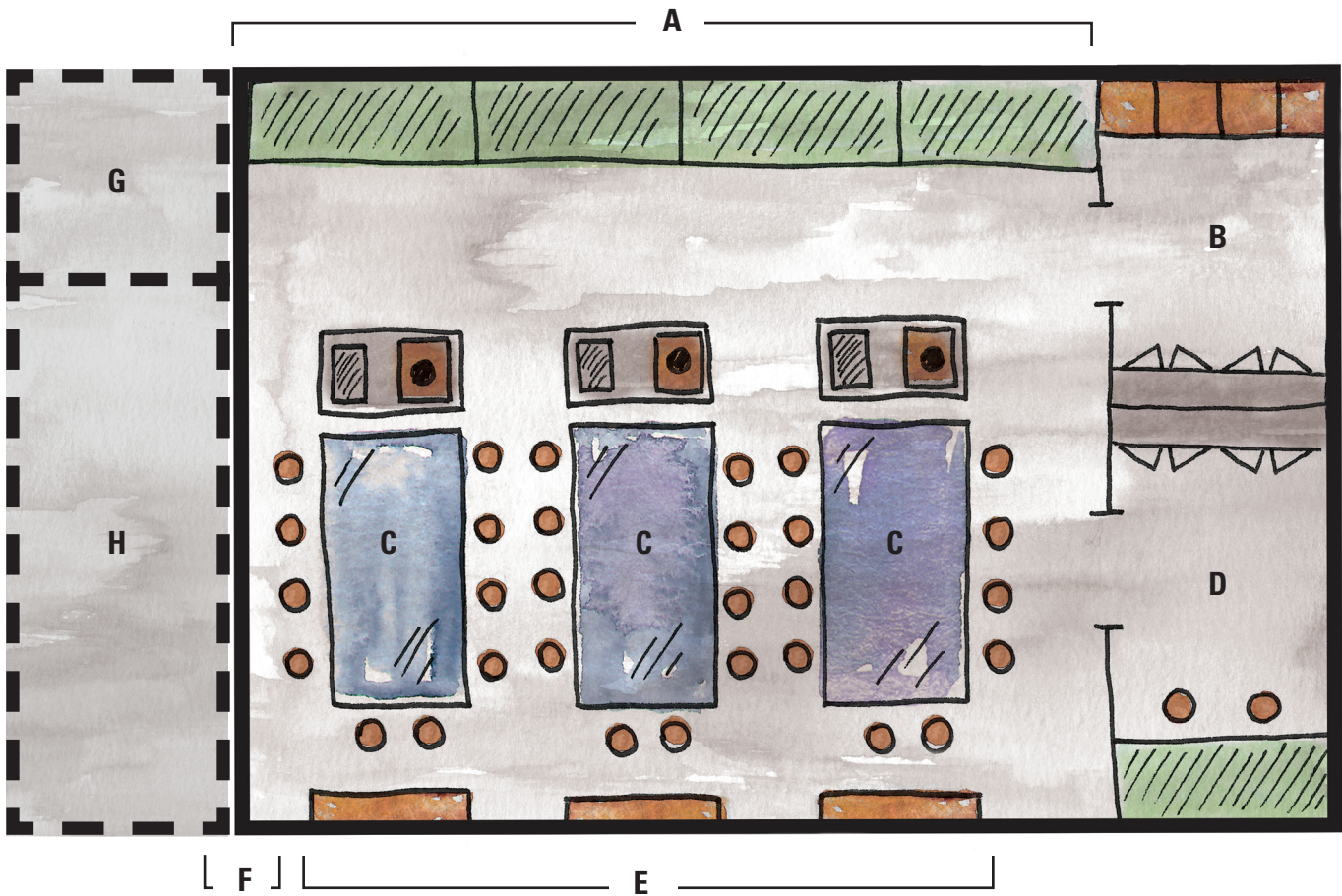
- Benches\*
- Perennial Beds\*
- Weather Station Area
- Shrubs

**Also required:**

- signage\*
- access to restrooms\*

*\*Design elements with asterisk indicate required design standard.*





- A Teaching Appliance Wall**
- Refrigerator / Freezer\*
  - Oven\*
  - Staging / Work Counter
  - Storage / Shelving\*

- B Dishwashing & Laundry Room\***
- Washer / Dryer\*
  - 3 Compartment Sink\*
  - Dishwashing Appliance

- C Student Cooking Station\***
- Working Table\*
  - 2 Burner Range\*
  - Ventilation & Exhaust Hood\*
  - Kitchen Sink\*

- D Pantry & Administration Room**
- Bulk Food Storage
  - Teacher /Chef Staging Counter
  - Administrative Station
  - Audio, Visual & Media Controls

- E Student Storage Wall**
- Storage Cubbie (10)\*
  - Hanging Rack

- F Instructional Media Wall**
- White Board\*
  - Digital Projection / Monitor

- G Restroom\***

- H Flexible Space**
- Additional Restroom
  - Equipment Storage
  - Utility / Mop Closet
  - Etc.

- Also required:**
- signage\*

*\*Design elements with asterisk indicate required design standard.*



# BEST PRACTICES AND GUIDELINES *Garden*



Review and complete the Culinary Garden Best Practices Checklist in the Appendix of this book at the beginning of every school year.

The following best practices and safety guidelines are meant to be a tool for schools to minimize risks associated with school gardens. These practices and guidelines are an outline that may easily be adapted to meet the unique needs and local requirements of a school.

At the beginning of every school year, schools should review the best practices checklist in the Appendix and keep a record of when the checklist was reviewed. If any actions should take place in order for the school to meet a best practice, it should be documented. Always share completed checklists with school administration and/or facilities management teams.

## SAFETY AND SANITATION GUIDELINES

- Students, staff, parents, or volunteers involved in harvesting food for public consumption should wash hands thoroughly in warm soapy water for at least 20 seconds prior to harvesting.
- A person with a food-safety certification should supervise students, parents, or staff who participate in any food preparation such as taste-tests or special cafeteria events.
- All students and staff should have access to restrooms with potable (safe to drink) hot running water, soap, and a hand drying mechanism.
- All students and staff should wear closed toe shoes.
- Anyone with open cuts or wounds should not participate in harvest until healed.
- Any students or staff exhibiting symptoms of illness should not handle produce in the garden.
- All harvesting tools should be food-grade and designated only for harvest and food handling.
- All garden tools and utensils should be cleaned and free of dirt at the end of the day. Any tools or utensils that come into contact with food need to be properly cleaned and sanitized.
- School garden produce delivered for use in a school cafeteria should be received and inspected by food service personnel upon delivery with the same system used to receive and inspect all other incoming products.
- If storage is necessary, produce should be cooled and refrigerated promptly after harvest.

### SAFETY AND ACCESSIBILITY

Safety and accessibility are key to a school garden. To be able to learn students must feel comfortable in the setting and understand the proper use of space and tools, as well as how to behave in unexpected situations.

- Planning a garden with a setback from public thoroughfares is important. A setback of at least 30 feet from a public sidewalk is recommended. Schools should follow local zoning set back regulations. Regardless of the setback available, students should understand school procedure for dealing with strangers who want to ask questions.
- Tools should be stored in a shed or classroom space. They should not be accessible to students until garden staff has instructed them to use the tools. Emphasis should be placed on keeping anything potentially dangerous out of reach until proper procedure has been discussed.
- Students should be spoken to maturely about the presence of bugs and animals and should be informed of which common bugs and animals to avoid, or how to get an instructor when sighted. A full first-aid kit should be kept in the garden space at all times. Students with severe allergies, such as to bee stings, should not be allowed in the garden unless an adult or school nurse has an EpiPen or other safety protocols are in place.
- ADA accessibility should be important when planning your garden space. All students deserve the ability to spend time in the garden, and accommodations should be made to allow accessibility. Best practice is including a central ADA-compliant walkway which connects to at least one bed. If graded well and maintained, often turf can be accessible to those in wheelchairs and with ambulatory equipment. Consult your school design professional to ensure the most up-to-date requirements for accessible gardens are in practice.

## PLANNING GARDEN COMPONENTS

### SOIL

Soil is one of the top concerns when planning a school garden, and it will influence the design of the garden greatly. Considerations should be made with regard to the state of the native or existing soil and the resources available to continue to build healthy soil.

- If soil used for growing is coming from school property, test for contaminants before planting. Testing kits are usually available through state cooperative extension or state health offices.
- An HCL and heavy metals test should be conducted along with the general soil testing. There are no national standards published by the EPA on acceptable lead levels in garden soil, but most gardeners believe less than 400 ppm is acceptable (as measured by a Total Sorbed Metals soil test). Any level of soil lead should encourage teachers to make students wear gloves when working in the soil and wash produce before consuming. Minimal or naturally occurring levels should not discourage a garden project.
- Identify the history of the garden site to help determine areas of the garden that are not suitable for growing food or may need special amendments.

### LIGHT

Without the proper amount of light, a vegetable garden will not thrive and plants will be more susceptible to bugs and disease.

#### *Full Sun*

For the main garden area, the site should receive 6 to 8 hours of unobstructed sunlight each day.

#### *Partial Shade*

For perennial areas, use a mix of different sunlight conditions to build the garden space. Ask local gardeners and garden centers for suggestions on plants for sunlight conditions from full sun to full shade.

#### *Shade*

Highly shaded areas are an asset to a school garden but cannot be used for vegetable production. It would be advisable to seek out some shade in any school garden for ferns, mint, gingers, and woodland plants. These can be spaces for student reflection and conversation.



**WATER**

Water should be readily accessible to school gardens. Any compromises made in the availability of water will greatly threaten a garden's success in the long run.

*Hose Bibbs*

A hose should be no further than 8 feet from the edge of the garden space.

*Irrigation*

As budget allows, irrigation and timers should be installed so that the garden can get precise amounts of water, even on holidays and weekends, and so that precious garden time can be used for instruction as often as possible. When using water for irrigation make sure it is potable and from a tested source. Check with your state cooperative extension or state health offices for simple testing kits. Drip irrigation is recommended to maximize water conservation.

*Rain Barrels*

Rain barrels are a wonderful way to talk about the water cycle, recycling, and water conservation. At least one rain barrel should be on site for teaching purposes, but ideally include as many as existing school roofs allow.

*Watering Cans*

If there is no irrigation, there should be one watering can per 10 square feet of the garden, or one can per student in any given class period, whichever is smallest.

**NOTE:**

Sprinklers are not recommended for watering the garden. Overhead watering is less effective and can increase the spread of disease. Use student garden time for watering with a can and sprinkler watering only when absolutely necessary.

## PLANNING GARDEN SPACES

### SPACE

The amount of space a school garden uses is very specific to the program itself. Below are general spacing guidelines for making those decisions.

- A garden should be large enough to show a variety of food and plants to students, but some schools may have space restrictions. A minimum of 500 square feet is recommended.
- An ideal amount of space for a school garden is 10 square feet per student in the largest class at any given time.
- The maximum amount of garden space should be determined by staff capability. There should be a dedicated garden teacher/gardener for each 10,000 square feet of garden space.
- In-ground gardens should have walkways that are a minimum of 3 feet wide and beds that are a maximum of 4 feet wide. A 4-foot-wide bed should be accessible from both sides so that a student may access every part of it. A 3-foot walkway allows for student congregation and for students who may not be as agile or aware of their physical space to work on rows without damaging adjacent rows.
- Raised beds should, for structural reasons, be no more than 4'x8'. Larger beds have a tendency to bow and break. Beds should be at least 2.5' feet deep in order to support plant growth and not dry out too quickly.

### STORAGE

Storage of garden tools, supplies, and materials should be on site and within eyesight of the garden. The use of chemicals and chemical fertilizers in the garden is discouraged. The recommendation is that each garden have a shed. If a shed is not possible due to budget constraints, an adjacent classroom will do, but it should be in eyesight of the garden. If a garden is over 1,000 square feet there should be an equal amount of storage space for bulk materials such as mulch, manure, or bulk compost materials.

**WASHING STATION**

A washing station with a deep bottomed sink, such as a utility sink, should be within the proximity of the garden and designated for garden use. This sink can be used for hand washing, but shouldn't be used for any other purposes, as it may contaminate harvest. Other vessels and hoses can be substituted for this purpose. Many gardens and farms use recycled clawfoot tubs with drains, for example, for processing food. As long as water can flow in, there is plenty of room for washing produce, and drainage is properly hooked up (this can be part of a grey water system) this is acceptable. Any vessel being used to process food should have the ability to be sanitized and should be sanitized frequently.

**SHADED OUTDOOR CLASSROOM AND MEETING AREA**

Shaded space is important for garden instruction. Ample seating should be available for every student that would be instructed at any given time. These spaces should also be suitable for adult meetings.

Shade structures with roofs are recommended and helpful for installation of a rain barrel. If writing surfaces under a shade structure are not available, teachers should be prepared to provide a clipboard for each student when writing is necessary. The area should include at least one picnic table or table structure for garden staff to conduct meetings and visitors to sit and speak with staff and students.

In lieu of a shade structure a pre-existing shaded area will do, but it should be shaded with non-deciduous trees. In this case, the area should be graded and the ground should be turf or a comfortable material that will not become muddy on rainy days. A table still needs to be provided for garden meetings to take place.

It is advised that a quiet, dry spot that showcases the beauty and serenity of the garden be set aside for sitting and talking with potential funders, supporters, and even students in need of de-escalation or intervention. This small step can be incredibly important when building a community in the garden and fostering advocates for the program. These spaces should be clean and accessible to even the most unaccustomed to the outdoors.



**SEED STARTING AREA**

Seed starting is incredibly important for the vitality and financial sustainability of a school garden. Seedlings can be an expensive investment every season, and school gardens should be prepared to start from seeds a sizeable portion of their plants every season to manage costs.

Consider source and quality when purchasing seeds for your school garden. Look for seeds that are preferably non-genetically modified and come from companies that have taken a “safe seed pledge.”

**GREENHOUSE**

A greenhouse should be no smaller than 10'x10' to be effective. If a greenhouse is not an option, then schools should be prepared to start seedlings outside or inside under lights. Seedlings should not be started indoors without light, as they will be weak and reaching for sun. Seedling starting space should be at least 50 square feet.

**THE GARDEN ENVIRONMENT****SIGNAGE**

Signage is important for student pride and informing the public of how to interact with the garden.

If the school garden is visible to the public, a sign should introduce it as well as thank donors. Schools should also consider signage for other parts of the garden that may be helpful for neighbors and volunteers, such as the compost and the seedling starting area. These signs help build rapport with the public and instruct volunteers when they visit.

If the garden is not visible to the public, it is still helpful for school pride and donor recognition to provide signage. A minimum of a name and a thank-you to donors is recommended.

**GARDEN NORMS AND BEHAVIORS**

All gardens should have a sign explaining garden norms or guidelines for behavior. Some find it helpful to review every time students enter the garden. This list of norms should be clearly posted so that students can be held accountable, and students should be deeply involved in the creation process. Workshopping this sign with groups of students gives them ownership of the garden and helps them encourage one another to follow the norms.

**RESTROOMS**

- All students and staff should have access to restrooms with potable hot running water, soap, and disposable towels (or other hand drying mechanism).
- Restrooms should have adequate handwashing signs. Many informative signs are available for educating garden staff on this subject, and some may be helpful for students. If hand washing isn't easy and encouraged, poor sanitation can lead to food contamination in the garden.
- Never use the bathroom sink for washing food.
- If school procedure requires an instructor to accompany a student to the restroom, then the restrooms should be within eyesight so that the proper number of instructors remain in the vicinity.

**PLANNING WITH MAINTENANCE IN MIND**

Understanding the way maintenance will happen will help with the layout of the garden.

*Mowing*

Adhering to walkway standards and setbacks should allow for the passage of most lawn mowers. If your school has a larger mower, considerations should be made to accommodate it. Also, knowing who will be mowing, and how often, is important.

*Weeding*

Weeding can be a fun task with students or a time drain depending on the goals of the garden and the number of students and staff. Gardens should be mulched heavily for water conservation, temperature regulation, and weed control. Recommended mulches are recycled wood chips (not bagged or dyed), straw or hay without seed heads, and pine straw in areas without a problem with acidic soil.

*Harvesting*

A harvest plan should be set up so that fruit does not rot, attract birds, or reduce the productivity of the plant. If time allows only to harvest once a week, then plant selection should take this into account. Plants which require daily harvest, like okra, should be avoided.

*Wheelbarrows*

A necessary tool for soil hauling and debris removal, wheelbarrows should be measured to make sure that they fit easily down walkways. Most common wheelbarrows fit down recommended path sizes.

At least one path should be able to fit a truck for hauling bulk materials if the garden is over 1,000 square feet.

**COMPOST**

All gardens should incorporate a composting component. There are two basic methods of composting: compost bins and vermicomposting.

*Compost Bins*

Compost bins can follow a slow method that takes 6 to 12 months or a fast method that takes 3 to 4 months. The slow method is ideal for school gardens because it requires less labor. For detailed information about how to make compost, visit Life Lab's [The Ultimate School Composting Resource Page](#).

An important consideration when making a compost bin system is where to find the compost materials. The system will need to have a carbon and nitrogen balance, so a carbon source must be available. A 3-bin system for turning compost is recommended as it allows for different degrees of readiness.

**NOTE:**

It is recommended that schools do not use cafeteria scraps unless the garden coordinator and/or staff as well as the student monitors helping with the composting are trained in compost management and have a system in place that minimizes risks.

A proper composting system includes:

- Training staff and students in proper composting techniques
- Documentation of time and temperature required to destroy pathogens associated with composting
- Monitoring of composting stations

If you decide to collect cafeteria scraps for composting, ensure that the station for collecting the scraps is monitored by an adult or responsible student who can identify what should and should not go into compost.



### *Vermicomposting*

Vermicomposting is ideal for school gardens with little space or mostly food waste. It is also very enriching for students and very effective in producing useable compost. This method requires a lidded container, red worms, food scraps, and bedding for the worms to live in. For more information on how to get started with vermicomposting visit [Life Lab's Worm Composting Resources and Video.](#)

## TYPES OF GARDENS

Whether to install raised garden beds, in-ground garden beds, or a combination of both is dependent on the population the program serves and the intended outcome. Materials used for garden beds, containers, stakes, or trellises should be constructed of non-toxic, non-leaching material.

### **IN-GROUND GARDEN BEDS**

In-ground gardens have a soil structure established and are far less expensive to begin. In-ground gardens should be considered in areas where the soil is amenable and the community has a connection to row-cropped agriculture. Community members will be more able to interact with in-ground gardens if there is a strong cultural tradition. Additionally, these gardens require the same organic matter as raised beds do, without the maintenance of lumber that raised beds need.

In-ground gardens should be avoided where the soil condition is not ideal or the population using the garden is small. Also, they are less physically accessible to students or guests with limited mobility.

### **RAISED GARDEN BEDS**

Raised beds allow for the building of a new soil structure, which can be advantageous in areas with poor soil. They are easy for people to interact with and building them is a rewarding project to do with students. Raised beds are also tidier for the first several years, which can help with manageability of the garden.

Raised beds should be avoided when the budget is tight, as lumber can be a big investment. They also should be avoided in areas where good, healthy bulk soil and compost are not available, as they will be difficult to fill effectively.

**MIXED PROJECT WITH RAISED BEDS AND IN-GROUND GARDENS**

If conditions are right and funding exists, a mix of the two methods can be the best option. In this scenario, various needs are served and the best of both methods can be enjoyed.

**FRUIT TREES**

Fruit trees are a boon to school garden programs. If space allows, fruit trees are a recommended part of every program. Fruit trees should be given the proper amount of space depending on variety, and they should never be planted in too small a space. Shade trees can also be useful in a garden space, especially ones of specific importance to a place or school. When planting any trees, think about their eventual space needs rather than their immediate space needs.

**PERENNIALS AND THEMED GARDENS**

All school gardens should have some sort of perennial component to soften edges and aid in showing the change of seasons. These gardens can have as little as a simple buffer row of perennial plants, or can be extensive perennial gardens.

Meditation space is important for decompression of an upset student or an exhausted staff. These spaces can greatly strengthen the healing capacities of the garden and the sense of community within it.

Craft projects can be conducted more easily in perennial spaces. Hanging birdfeeders, making light-sensitive prints, or growing plants for making dye are all activities best done in a perennial garden. Meetings can be held in the perennial space, as they are designed to provide shade and a calm environment.

## FURTHER CONSIDERATIONS

Some school garden guidelines are not as universal. Options for the personalization of a school garden should take many factors into account such as student needs, staffing, summer plans, and the role of the garden in everyday instruction.

### ANIMALS

Owning farm animals at a school, while it provides an enriching experience, should be approached with a great deal of planning and consideration. Adding animals to a program means that weekends and holidays, including summers, will require the help of a volunteer or teacher on a daily basis. Chickens or ducks are the most accessible animals for a school garden. Three or four chickens can make a big difference in the interest and investment level of students and neighbors, but always make sure the program is fully following local ordinances for space and noise of pets. Chickens should have no less than 80 square feet and a proper space for laying, eating, and sleeping. Improper care of animals can lead to various problems for a garden. Proper care teaches students and the community animal welfare, stewardship, and responsibility. Programs should have birds for at least a year before deciding to add any other farm animals.

Bug and wild bird habitats, or hotels, can be a wonderful addition to a garden for biodiversity and for teaching. These are recommended in every garden setting, and allowing students to participate in their construction can be a rewarding way to increase student interest. In schools where ecology lessons are being employed in the garden, ask students to make observations about biodiversity at installation and again several months later. Bug and bird hotels can be as small as 3'x6' and hang on a wall surface.

Animal habitats such as piles of sticks, piles of leaves, underbrush, and upside-down flower pots can increase wildlife.



### AT A GLANCE: SCHOOL GARDEN GUIDELINES

- Raised beds following size requirements if raised beds are chosen.
- In-ground beds following size requirements if in-ground beds are chosen.
- Adequate light in main production space
- A hose bibb within eight feet of the garden
- Adequate number of watering cans or irrigation
- A dedicated washing station
- Adequate space
- Adequate storage
- Adequate year-round shade
- A composting system
- A dedicated seed starting area
- Signage, including a norms and behavior sign
- Adequate restrooms within eye-sight
- A safety plan, first-aid kit and ADA accessibility to at least some of the garden
- A fully composed safety plan in advance of students entering the garden
- A thought-out maintenance plan during design and installation

# BEST PRACTICES AND GUIDELINES *Kitchen*



Review and complete the Teaching Kitchen Best Practices Checklist in the Appendix of this book at the beginning of every school year.

The following best practices and guidelines are meant to be a tool for school partners to minimize risks associated with cooking in the classroom. These practices and guidelines are intended to serve as a framework that may easily be adapted to meet the unique needs and local requirements of a school.

At the beginning of every school year, schools should review the best practices checklist in the Appendix and keep a record of when the checklist was reviewed. If any actions should take place to ensure the space is ready for instruction, they should be documented and a plan created to implement them. Always share completed checklists with school administration and/or facilities management teams.

## SAFETY AND SANITATION GUIDELINES

### SAFETY AND ACCESSIBILITY

- Safety and accessibility are key to a teaching kitchen. To be able to learn, students must feel comfortable in the setting and understand the proper use of space and tools, as well as how to behave in unexpected situations.
- Tools should be stored in workstations, on shelves, or in a closet. They should not be accessible to students until kitchen staff has instructed them to use the tools. Emphasis should be placed on keeping anything potentially dangerous out of reach until proper procedure has been discussed.
- A full first-aid kit should be kept in the kitchen at all times. Students with severe allergies should be identified and should not be allowed to prepare or eat the foods that affect them. An adult or school nurse should have an EpiPen or other safety protocols in place.
- ADA accessibility should be important when planning the kitchen space. All students deserve the ability to spend time in the kitchen, and accommodations should be made to allow accessibility. Consult the school design professional to ensure the most up-to-date requirements for accessible workstations are met.

### FOOD ALLERGIES

Food allergy policies are critical for providing a safe and healthy learning environment for students with food allergies. The level of sensitivity and the types of reactions vary greatly among individuals with food allergies so it is important that schools tailor the approach to preventing and treating these allergies to the individual's needs. Unless school policy states otherwise, instructors and adults who may be involved in the care of a student diagnosed with a food allergy should be informed of the individual health care plan for that student, as well as the school's emergency health care plan, as appropriate. It is the responsibility of the school to ensure that instructors and adults caring for students with food allergies understand and consistently follow plans and procedures, be able to recognize symptoms of an allergic reaction, know what to do in an emergency, and work with other school staff to eliminate the use of food allergens in the allergic student's snacks and meals, educational tools, arts and crafts projects, or incentives.

### PLANNING KITCHEN SPACES

As with the garden space and design, the amount of space a school needs for a teaching kitchen is very specific to the school and program itself. Below are general guidelines for making those decisions, however, a school should consult with its school district facilities management to determine minimum square footage requirements and other regulations in its state.

- The teaching kitchen should be large enough to accommodate food preparation and cooking activities with a minimum of 3 cooking stations, various storage needs for food and equipment, access to adequate restroom facilities and handwashing stations, a dishwashing / laundry area, and an instructional wall for a white board or other media. 1,000sq ft – 1500sq ft is suggested.
- A general rule of thumb for a school kitchen preparing and serving food is to have 1,000sq ft for every 200 – 1,000 meals that will be served from the kitchen.
- Anticipate potential growth in student enrollment when planning the size of the teaching kitchen and how many students it should accommodate. The space should accommodate 10 students per cooking station with a minimum of 3 cooking stations.



### TEACHING ISLANDS (STUDENT COOKING STATIONS)

Each cooking station should comfortably seat 10 students, be equipped with the same basic cookware, and include a two-burner range with ventilation and exhaust hood, counter space for food prep, and a sink. If a school prefers an alternative to gas, an induction range could be an option. Schools should keep in mind that induction capable cookware is needed for induction to work. To distinguish what tool belongs to which cooking station, use a labeling or coding system, such as color coding the handles of each stations equipment a different color. This will help students identify their tools and help instructors reinforce kitchen norms and behaviors.

### STORAGE

#### *Teaching Appliance Wall*

The teaching appliance wall includes a refrigerator/freezer, oven, microwave, staging/work counter, storage, and shelving. Each cooking station should have its own dedicated staging/work counter and storage area on the appliance wall, and all drawers, cabinets, and shelves should be labeled clearly for students. Equipment and tools used regularly for the whole class that are not stored at individual cooking stations should have a designated area on the appliance wall, too. Similar tools, such as electronic appliances, should be stored together. Any raw foods in the refrigerator should be stored below cooked and ready-eat-foods. Always label and date stored food.

#### *Student Storage Wall*

Students should have a separate, designated space for personal belongings that is away from the food prep and cooking stations and appliance wall.

#### *Pantry and Administration Room*

All dry bulk food items such as flour, beans, sugar, etc., should be stored in clean, covered, labeled containers. This general area can also be designed to accommodate an administrative work station if space allows, however, the food items and personal work spaces should remain separate.





### RESTROOM/HAND WASHING STATION

All students and staff should have access to restrooms with potable hot running water, soap, and disposable towels (or other hand drying mechanism) and a conveniently located waste receptacle. Hand washing signs must be posted. Never use the bathroom sink for washing food.

### DISH WASHING / LAUNDRY AREA

A designated dish washing area with a washer and dryer for kitchen towels, aprons, and other linens should be located away from the cooking stations. Cleaning products should be labeled and stored in a designated area. Schools should establish rules with each class at the beginning of the year regarding clean up responsibilities and dishes. A common practice is for cooking stations to rotate clean-up duties either on a monthly or weekly basis. It is discouraged to use clean-up duties as positive punishment.

## THE KITCHEN ENVIRONMENT

### SIGNAGE

Signage is important for student pride and informing the public of how to interact with the kitchen. If the entrance to the kitchen is visible to the public, an exterior sign should introduce it as well as thank donors. Programs should also create signage for interior parts of the kitchen, helpful for school pride and donor recognition. A minimum of a name and a thank-you to donors is recommended.

### KITCHEN NORMS AND BEHAVIORS

All kitchens should have a sign explaining kitchen norms or guidelines for behavior. Some find it helpful to review every time students enter the kitchen. This list of norms should be clearly posted so that students can be held accountable, and students should be deeply involved in the creation process. Workshopping this sign with groups of students gives them ownership of the kitchen and helps them encourage one another to follow the norms.



Protect your fingertips in the shape of a claw, and use your knuckles to guide the knife.

## COOKING TECHNIQUES

### WASHING

Always rinse food under cold running water and pat dry with paper towels before using. Depending on the food, you may have to use tools to remove loose dirt. When it comes to blemished fruits and vegetables or food, evaluate the food to determine if the blemished area can be removed or if the food should be discarded as compost or trash.

#### *Fresh Veggies and Fruits*

Rinse veggies and fruits well under cold running water and then pat dry with paper towels before using. Some veggies, such as potatoes, need to be scrubbed with a vegetable brush. Others, such as mushrooms should be brushed with a soft bristled brush to remove loose dirt and should not be soaked in water.

#### *Berries and Dried Beans*

Rinse well and pick through to remove bad or blemished pieces.

#### *Meat, Poultry and Seafood*

Rinse under cold water and then pat dry with paper towels.



### NOTE:

Use extreme caution when handling raw meat or poultry.

### PEELING

Some fruits and vegetables peel easily with a vegetable peeler while others should be peeled using another kitchen tool.

If using a vegetable peeler, place the food item on a clean cutting board and hold firmly with one hand. Using the other hand, scrape the peeler down (away from the person peeling) for the length of the food. Turn the food to remove the entire peel.

If using a knife to peel fruits and vegetables, such as garlic or onions, make sure the knife is sharpened, and then cut off both ends of the food. Then, use fingers to peel away the dry outer layer. When peeling garlic, press the garlic down against the clean cutting board using the palm of the hand to loosen the skin.

Adapted with permission from Emeril's Children's Cookbook Series, "There's A Chef..." by Emeril Lagasse

**CHOPPING**

Chopping is interchangeable with slicing and is a type of cut that is used for precision cutting of vegetables and herbs using a very sharp knife. The four main ways to chop something are: cubed, roughly chopped, finely chopped, and minced. The more a food is chopped, the smaller the pieces will get. When chopping or slicing foods, always place them in a stable position, preferably with a cut surface flat against a clean cutting board. Guide the knife blade against the food with the free hand.

**GRATING**

Grating is a technique used to cut foods into smaller pieces by rubbing the food against a grater. To grate a food item, hold the food in one hand and the grater with the other hand. For hard foods, rub the end of the food downward over the holes of the grater, moving the food back and forth so that the grated pieces fall through the holes. For soft foods like cheese, use less pressure with the same technique.

**NOTE:**

Make sure to place a large mixing bowl or piece of waxed paper under the grater to create a space for grated food to land. Always be careful of fingers near the grater.

**ZESTING**

Zesting is a technique used to scrape or cut away the outer layer of a citrus fruit. Ideal tools are a zester, a microplane, or a fine grater. If using a zester, press and pull the zester down the side of a piece of fruit to remove tiny strips of the outermost layer. If using a fine grater or microplane, rub the side of the fruit along the grater while pressing down lightly so that small pieces of zest fall through the holes of the grater. If a recipe calls for a strip of zest, simply run a vegetable peeler across the skin of the fruit to remove a portion of the outermost, colored layer of skin.

**REMOVING CORN FROM THE COB**

To remove corn from the cob, hold the ear of corn in one hand and rest the thicker end of the ear on a clean cutting board so that it is standing up. Using a large chef's knife (this should be done by an adult) starting at the tip with a downward motion, cut the kernels from the cob. Turn the cob with every cut to get all the kernels. To release milk from the corn, scrape the corncobs with the back side of the chef's knife or with a spoon.

**CLARIFYING BUTTER**

Clarified butter refers to butter in which the liquid and milk solids have been removed, leaving only pure butterfat. To clarify butter, heat the butter over low heat in a small saucepan until it is completely melted and slightly bubbling. Using a small spoon, skim from the top and discard the milk solids that have risen to form a white bubbly layer. The second layer will be the pure yellow butterfat. Spoon this out into a bowl for saving without disturbing the bottom layer that is in the pan. The bottom layer will be a cloudy, white, watery substance that should also be discarded.

**MEASURING**

The most accurate way to measure something is with individual measuring cups (1/4-, 1/3-, 1/2- and 1-cup) and measuring spoons (1/8 tsp, 1/4 tsp, 1/2 tsp, 1ts(1/8 tsp, 1/4 tsp, 1/2 tsp, 1tsp and 1Tbsp)p and 1Tbsp).

MEASURING EQUIVALENTS			
3 TEASPOONS =	1 TABLESPOON		
4 TABLESPOONS =	¼ CUP		
1 CUP =	½ PINT =	8 OUNCES	
2 CUPS =	1 PINT =	16 OUNCES	
2 PINTS =	1 QUART =	32 OUNCES	
4 QUARTS =	1 GALLON =	128 OUNCES	
1 STICK OF BUTTER =	8 TABLESPOONS =	¼ POUND =	= ½ CUP

*Measuring Dry Ingredients*

When measuring dry ingredients such as flour, sugar, rice, etc., use a metal measuring cup and dip the cup into the ingredient to be measured. Level off the top using the flat side of a knife or hand. Use the same technique for measuring dry goods with measuring spoons.

*Measuring Liquid Ingredients*

When measuring liquid ingredients, use see-through glass or plastic measuring cups. Fill to the appropriate line and check at eye level. When using measuring spoons, hold the measuring spoon level in one hand and pour the liquid into the spoon with the other hand.

**CONTAINER CAPACITY**

If unsure about the size of a container, including saucepans and baking dishes, use a 1-cup measuring cup to fill the container with water and count how many cups it takes to fill. Then, convert the cups using a measuring equivalent chart.



**FOLDING**

Folding is a technique used to mix ingredients together so they remain fluffy. Rather than stirring, use a large plastic or rubber spatula to combine ingredients by using 2 or 3 “up and over motions” taking care not to overmix.

**SIFTING**

Sifting is a technique that is done to ensure there are no lumps in dry ingredients like flour. To sift, hold the sifter over a bowl and move side to side. If your sifter has handles to squeeze or a knob, squeeze the handles or turn the top while moving side to side.

**TESTING THE HEAT OF A PAN**

To test the heat of a pan, drop a teaspoon of water into the pan. If the water “dances” across the bottom of the pan, it is hot enough to cook in.

**INSTANT READ THERMOMETER**

Instant read thermometers help to make sure that things are cooked enough. If using a thermometer, make sure it is inserted far enough into the food being tested to measure a true temperature. Also, make sure not to touch the end of thermometer to the bone of the meat. Most thermometers have a line on them that indicates how far they should be inserted. After placing the thermometer into the food, wait a few seconds until the temperature stops rising and read the number.

**NOTE:**

Meat may contain germs so it is always best to cook until it is no longer pink inside. This is often called being “cooked through.” Use an instant read thermometer to test if the meat being cooked is the right temperature. For beef, medium well to well done is 150 degrees F. For poultry and pork, always cook to at least 160 degrees F.

**COOKING WITH HERBS**

When cooking with herbs, remove the stems from the herbs before chopping into small pieces with a knife. If a recipe calls for dried herbs but fresh herbs are desired, use nearly 3 times the amount of fresh herbs to get the same flavor as dried herbs.

**PRESERVING**

Preserving is a technique used to prevent unwanted growth, such as yeast, mold, and bacteria, from ruining harvested fruits and vegetables. Schools should invest in a detailed resource and keep that resource on hand to ensure best practices and safety are being met. For general guidelines visit the [USDA's Complete Guide to Home Canning](#).

**AT A GLANCE: SCHOOL KITCHEN GUIDELINES**

- Student workstations for food prep and cooking according to the site plan chosen
- A dedicated hand washing station
- A dedicated space for washing food
- Adequate space
- Adequate storage
- Signage, including a norms and behavior sign
- Adequate restrooms according to school requirements
- A safety plan, first-aid kit and ADA accessibility to at the least some of the kitchen
- A fully composed safety plan in advance of students entering the kitchen
- A thought-out maintenance plan during design and installation