

## LESSON 4

### Garden Design and Supplies

Every community garden will have elements that make it unique due to the makeup of its gardeners, neighborhoods, and physical garden space, but they will also have commonalities. This lesson will give you a sense of these elements and how they might differ for your particular garden.

#### Learning Objectives

1. Know common community garden design elements.
2. Know several optional elements that can create an enjoyable space.
3. Know the common supplies that you will need.



#### ACTIVITY 1

**As a class or in small groups, visit a functioning community garden to observe the design and elements. You could visit the same garden as before or a different garden, but this time think about what elements and designs seem to work well. Try to visit the garden at a time when you can speak with gardeners about their views on the garden.**



#### Common Garden Elements

This list and text is adapted with permission from the LA Master Gardeners-Common Grounds "Community Gardens Start-up Guide."

1. **At least 15 garden plots** should be assigned to community members. These should be placed in the sunniest part of the garden. Without plots for individual participation, it is very difficult to achieve long-term community involvement. Raised bed plots, which are more expensive, should be no more than 4 feet wide (to facilitate access to plants from the sides without stepping into the bed), and between 8 and 12 feet long. (It is advisable to construct your raised beds in sizes that are found in readily available lumber, or that can be cut without too much waste.) In-ground plots can be any size from 4 x 8 to 20 x 30 feet, but are often in the range of 10 x 10 to 20 x 20 feet. Pathways between beds and plots should be least 3 to 4 feet wide to allow space for wheelbarrows. The soil in both raised bed and in-ground plots should be amended with aged compost or manure to improve its fertility and increase its organic matter content. Organic matter provides nutrients to plants and food and structure for soil organisms that also aid plant growth.
2. **Pathways** between plots and other garden infrastructure should accommodate a wheelbarrow and/or wheelchair and should be at least 3 feet wide. Depending on your municipality's requirements and/or the desires of the landowner, you may need to make the pathways compliant with the Americans with Disabilities Act (ADA), which may require paving or fine gravel. Speak with the landowner early on about accessibility requirements to be sure you're in compliance with any mandatory regulations.
3. **A simple irrigation system** with one hose bib or faucet for every four or five plots. Hand watering with a hose is the most practical and affordable method for individual plots (it's almost a necessity when you start plants from seed). Drip and soaker-hose irrigation can be used in all areas of the garden for both transplanted and established plants, but especially for deep-rooted fruit trees and ornamentals. Local Master Gardeners and/or garden center professionals can assist with irrigation system design. You can also consider designating specific times each day to turn on the main water source—meaning plots can only be watered during these times. This strategy can encourage community building by concentrating gardening times, and can also encourage efficient water use.



4. **Fence** around the perimeter with a drive-through gate. The purpose of the fence is not to create a sense of exclusivity, but rather to mark off the garden area for easy recognition and respect for the space. The height of the fence can vary and depends on a variety of factors including cost, location, decisions made by the membership, requirements of the land owner, local code, and need to exclude vertebrate pests. The fence does not have to be an eyesore if it is decorated with welcoming signs and either edible vines or ornamental perennial plants such as bougainvillea.
5. **Tool shed** or large tool chest for storing tools, supplies, and materials. You'll need a place to store shared supplies for the garden, that gardeners can take out easily, use while they're in the garden, and then return. You could also build a shed out of wood, chain-link fence, or other materials.
6. **Benches** or picnic table in a shady area where gardeners can sit, relax, and take a break. If there is no natural shade, a simple arbor can be constructed from wood or pipe, and planted with chayote squash, bougainvillea, grapes, kiwis, or some other vine. You could also build a palapa or other shade structure.
7. **Sign with the garden's name**, sponsors, and a contact person's phone number for more information. If your community is bilingual or multilingual, include information in all primary languages for the community.
8. **Shared composting area** for the community gardeners. Wood pallets are easy to come by and, when stood on-end, attached in a U-shape, and the inside covered with galvanized rabbit-wire, make excellent compost bins. See Gardening 101 for more on composting.

#### Optional Elements

This list and text is adapted with permission from the LA Master Gardeners-Common Grounds "Community Gardens Start-up Guide." It identifies elements that are not essential but will create a more enjoyable community garden space.

1. **Small fruit tree orchard**, whose care and harvest can be shared by all the garden members. The orchard can also create shade for people and shade-loving plants.
2. A **water fountain** to increase comfort of gardeners and visitors. This can be a simple drinking fountain attachment to a hose bib (or faucet) you can purchase at a hardware store.
3. A **greenhouse or propagation table** for germinating seeds and propagating new plants from cuttings.
4. **Perimeter landscaping** for beneficial insects, aesthetics, and protection of the garden. This can focus on drought tolerant flowers and shrubs, plants that attract butterflies and hummingbirds, or roses and other flowers suitable for cutting bouquets. Herbs are also well-suited to perimeter landscaping and help to create barriers to unwanted pest insects who do not like the smell of their essential oils. Be sure to include guidelines for maintenance of these common plants in the gardener contract or garden guidelines.
5. A **children's area** for entertainment while guardians work or meet. This can include special small plots for children, a sandbox, and play equipment. Ideally this should be adjacent to a shaded seating area so parents can rest nearby while children play.

6. A **meeting area** to allow for garden management and community building. This can range from a semi-circle of hay bales or tree stumps, to a simple amphitheater built of recycled, broken concrete. The meeting area could be in the same space as the resting area and provide shade as well as meeting space.

7. A **community bulletin board** where rules, meeting notices, and other important information can be posted.

### Supplies

The core garden team can identify many of the supplies it'll need through the development of its garden plan. You can find more about calculating amounts of fencing and soil in particular in Lesson 3 on budgeting. The following is a sample supplies list adapted with permission from the Wasatch Community Gardens' "From Neglected Parcels to Community Gardens: A Handbook."

- **Tools:** Tools for the garden are separated into two categories below: essential and beneficial. See "Ten Tools Every Gardener and Garden Needs" from the American Community Gardening Association for drawings of the most common tools.



TOOLS	PHYSICAL DESCRIPTION	USE
<b>ESSENTIAL TOOLS</b>		
LONG HANDLED, ROUND-NOSED SHOVEL	Standard Shovel Shape	General Turning Of Soil And Compost
SPADING (DIGGING) FORK	like a pitchfork with four tines	turning and aerating soil and compost and digging for root crops
STEEL, LEVEL-HEAD OR BOW RAKES	rectangular and stiff, with a long handle	smoothing and grading soil, incorporating compost into the soil surface, and covering seeds
TROWELS	like miniature, hand-held shovels	weeding, cultivating and planting seedlings in prepared beds
WHEEL-BARROWS	cart with one front wheel and two back legs under two long, straight handles	moving and dumping soil/compost, especially in narrow paths and between rows
<b>BENEFICIAL TOOLS</b>		
BROADFORK	larger version of a spading fork	loosening and aerating soil with minimal structural disturbance to soil and soil organisms (sometimes used instead of the double-digging method)
GARDEN HOES	long handles and perpendicular flat blades	weeding, cultivating soil, and making furrows to plant seeds into



TOOL	PHYSICAL DESCRIPTION	USE
<b>BENEFICIAL TOOLS</b> CONTINUED		
LOPPERS	long-handled, short-blade pruners	pruning small-diameter tree and shrub branches
MATTOCK	medium handle and a heavy two-sided blade, one side like a wedge and the other like a spike	breaking up very hard soil
RECTANGULAR DIGGING SPADE	shovel with a square blade	digging straight-edged holes (for planting trees or larger shrubs)
SHORT/D-HANDLED, SQUARE-NOSED DIGGING SPADES	a flat, spade-shaped blade with a short, d-shaped handle	double-digging and sod removal
SMALL FRONT-TINE OR LARGER, MORE POWERFUL, REAR-TINE ROTARY TILLERS, (DEPENDING ON THE SIZE OF THE AREA TO BE TILLED AND THE HARDNESS OF THE SOIL)	motorized push-implement (like a standing lawnmower) with large blades	initial preparation and aeration of beds, and working compost into soil
SOD CUTTER (MANUAL OR MOTORIZED)	motorized push-implement (like a standing lawnmower)	removing sod (if too large an area for easy removal with shovels)
SAW	Serrated blade, can be manual or motorized	pruning back shrubs and trees

- **Additional Materials and Equipment:** these are additional resources you'll need for the community garden. Some supplies, like garbage bins and benches should last a long time at the garden. Supplies, like drip lines and gloves will need to be replaced more frequently as they wear out.

1. 100+ ft. measuring tape for measuring plots, building, etc.
2. Benches and tables for resting, eating
3. Building tools and supplies (wood, saw, nails, screws, etc.) if building a fence, tool box/shed, raised beds, trellises, signs or a bulletin board
4. Garbage bags and bins for litter
5. Gardening gloves
6. Irrigation system supplies: timer, hoses, drip line, filter, sprinklers, etc. depending on which type of irrigation system has been chosen
7. String and stakes and small signs for delineating and labeling plots
8. Tomato cages and/or bamboo with string for supporting plants and building trellises
9. Untreated wood for raised beds, lining the paths, etc. (untreated is key, because treated wood leaches treatment chemicals into soil, and eventually into plants)

- **Soil Amendments and Plants for Common Areas:** These are resources you'll likely need on an ongoing basis.

1. Compost (you'll make your own, but you may want to buy some early on for amending the soil)
2. Extra topsoil (calculate the cubic yards of soil needed by multiplying feet of length by feet of width by feet or partial feet of depth, then dividing by 27 to convert to cubic yards; see Lesson 3 for more on this)
3. Mulching materials (for paths and mulching beds for evaporation control it's a good idea to contact a local tree-trimming company to see if you can get wood chips from them for free)
4. Plants and trees that will occupy the communal spaces (for shade and aesthetics)



## References

1. Los Angeles Master Gardeners, UCCE, and Common Ground. 2001.  
"Community garden start-up guide."
2. Toronto FoodShare.  
"Ten Tools Every Community Gardener & Garden Needs."  
American Community Gardening Association.
3. Wasatch Community Gardens.  
"From neglected parcels to community gardens: a handbook."

