

Guide to Site Preparation & Planting

Your soil texture, compaction, drainage rate, and fertility will determine how to prepare your garden site. The School Garden Network Schoolyard Habitat Coordinator can help assess your soil and give you tailored advice on site preparation and planting.

This guide assumes all of your general garden infrastructure (pathways, trellises/archways, picnic tables, benches, willow walls, pond, water catchment systems, etc.) have already been installed.

See the *Schoolyard Habitat Design Handbook* for extended tips on plant selection, placement, garden design, and local plant and amendment purchasing.

Step 1 - Prepare your planting area with your students

- Weed planting space, and then sheet mulch if needed (if you are sheet mulching, then aerate your soil before planting)
- If you are designing a garden in Adobe clay, add topsoil to your planting space*
- Pre-water your space if it is very dry

**Some school sites in Santa Rosa are situated on Adobe clay, which is a very difficult substrate for many plants to survive in. At these schools, it's recommended to aerate the soil as much as possible with digging forks, and then add a few feet of topsoil on top of this clay substrate to aid in your habitat establishment.*

Step 2 - Plant with your students

- Stage your plants around the garden where they will be planted, with a flag in each pot
- Dig your holes to the appropriate plant depth
 - For clay-heavy soils, scour the walls and base of your hole to ensure there isn't a hard pan (If you think about it, you're essentially planting into a clay pot! Make sure that water can drain from this "pot" or you will have issues later on with root rot.).

- If your soil is rather denuded/infertile, you can also add a handful of nutritional amendments at the base of each hole (eg. Happy Frog). Tip: Do not completely fill the hole only with compost or other soil amendments, as this will create a water drainage imbalance between the two mediums.
- Plant!
 - If root bound, loosen the plant roots before planting
 - As you are planting, make sure not to bury the plant crown (where the root meets the shoot)
 - Install gopher baskets around plants as needed
 - For clay-heavy soils, as you place the soil back into the hole, break it up to create space for air and water movement
 - Avoid pushing on and compacting the soil too much as you bury the plants
 - When finished planting, place a flag next to each plant to avoid trampling and allow easier preliminary observation
 - Water each plant deeply after planting (this can also be done at the end)

Step 3 - Aerate the soil around your plantings with a garden fork.

- Tip: Try not to heavily walk on or compact the space after you have done this. It can be helpful to create stone pathways through the garden to minimize compaction.

Step 4 – Add 1-2" *top layer* of compost over your entire garden area.

This will inoculate your garden with beneficial microbes, and will create an environment where they can live and do their work in obtaining and sharing nutrients as they help build the top soil. Adding compost will also increase soil aeration, organic matter, and water and nutrient holding capacity.

(Although commonly misunderstood, the role of compost is not primarily to add nutrients.)

- Tip: It's not recommended to fill your planting hole with compost as this will create a water drainage imbalance between the compost and your native soil. It's advised to simply add a layer of compost to the **top** of your soil.

Step 5- Add a 2-4” layer of wood chips over the compost.

This will define the garden space, suppress weed growth, help retain water in the soil, and keep plant roots and beneficial microbes cool in the hotter months.

- Tip: Make sure your wood chips are from a tree that doesn't have allelopathic effects (eg. oak, Monterey cypress, eucalyptus)
- Keep wood chips 2-3” away from the base of each plant as the crown of the plant can rot if buried
- You can also leave some areas free of mulch for ground nesting insects
- After adding wood chips, you can also direct seed annual wildflowers over the garden area. Once seeded, water to help the seeds nestle into the substrate. If you have a strong bird presence you can also lightly cover the seeds with additional chips or cover the space with a small-grade bird netting until the seeds germinate.

Step 6 – Install drip irrigation

Drip irrigation can then be installed over the wood chips after planting.

- If requested, a drip irrigation expert can visit your school and install irrigation with your students. If your students are too young or not up for the task, SGN can also guide your maintenance personnel with tips for drip installation.
 - Tip: With clay soils that drain slowly, be sure not to overwater. Observe your soil and plant needs over time.
- Make sure to set a drip timer if not in the rainy season, and let the maintenance personnel know that the water is turned on.
- It's important for someone to continue to monitor your drip set-up to ensure there are no leaks and that the water is on. It's also recommended to change your timer battery annually.