RESOURCES

TITLE | BUILDING YOUR OUTDOOR CLASSROOM: THE TOP 10 INTRO

CATEGORY | Green Space

SUB-CATEGORY | *Building Your Outdoor Classroom: The Top 10*

OVERVIEW | This document provides an overview of the 10 infrastructure elements that we feel are essential for any outdoor classroom. It serves as an introduction to two resources linked in the Table of Contents, The Top 10: A Summary Guide, and The Top 10: An Extended Picture Guide.

Building Your Outdoor Classroom: The Top 10

What this resource is:

Building Your Outdoor Classroom: The Top 10 (The Top 10) is a resource created by numerous Education Outside staff and garden educators between 2016 and 2019. It reflects best practices developed and knowledge gained as Education Outside created outdoor classrooms for science instruction in 55 schools across San Francisco and San Mateo counties. We use the term "outdoor classroom" rather than "school garden" here because these spaces are intentionally designed to support teaching and learning outside. This resource is intended to help others as they design and improve their outdoor classrooms to not only be vibrant and beautiful green spaces, but also effective and interactive learning tools for all students.

The infrastructure elements listed in The Top 10 are: seating, whiteboard, teaching table, storage, food garden, exploration area, garden agreements, stations, signs and additional enhancements. These elements, especially the first eight listed, were determined by Education Outside Instructors to be major factors in the success of their outdoor science lessons. In order to lead effective place-based science lessons, the space needs to reflect or support the content. In most elementary school classrooms you will find a carpet or whole group gathering space, a whiteboard or chalkboard, spaces for small group learning, a teacher desk, and storage space. These elements support the teaching and learning styles within the class, help set norms and routines, and integrate student and teacher needs and behaviors into the physical space. In order for a green space to become an outdoor classroom it should have many of the infrastructure elements found in indoor classrooms, while still allowing nature to be the foundation for the space. There are also unique needs in an outdoor setting. For example, students need a place to sit in order to focus their attention on the instructor, just like an indoor classroom. However, there are added design concerns for an outdoor seating area, including minimizing students' exposure to, and glare from the sun, and minimizing noise from distracting traffic. The Top 10 is a guide to providing the best opportunities for learning outdoors by integrating the physical design with the content and objectives of rigorous science lessons.

Why this resource was created:

In 2011 the San Francisco Green Schoolyard Alliance transitioned into a nonprofit organization, Education Outside, that trained and placed outdoor science educators into outdoor classrooms. Between 2011 and 2019, EO increased school partnerships from 4 in San Francisco to 56 across San Francisco and San Mateo counties.

As Education Outside expanded into more schools, across multiple school districts, serving a diversity of communities with varying amounts of space, money, and community involvement, it became important to have a standard list of elements for each outdoor classroom in order to best serve all students.

The Top 10 was initially created to help guide and inspire instructors working in each of these schools, as they created, added to, and enhanced their outdoor classroom spaces. Each school year, Education Outside Staff provided training to instructors focused on The Top 10, gardening basics, and involving their school community in the maintenance and improvement of their outdoor classroom. Instructors were then equipped to enter their outdoor classrooms, inventory their existing infrastructure and resources, and make plans for adding to, or enhancing, the space. Throughout the school year Education Outside helped facilitate at least one work day per school, provided additional funding to schools that needed it, and continued to train instructors in outdoor classroom design (e.g. construction basics, perennial propagation and care, behavior management in an outdoor classroom, etc.) in order to provide ongoing support for improving their outdoor classrooms. These outdoor classrooms evolved over the course of years, and instructors continually referenced *The Top 10* for inspiration and a guiding framework.

The Top 10 was developed with inclusivity in mind, because there is a great deal of nuance and context within every school community. It includes a variety of examples of each infrastructure element, at different price points and ease/difficulty to implement. While it is not comprehensive, it has helped instructors and school communities build dozens of outdoor classrooms across San Francisco and San Mateo Counties. We hope it provides inspiration to suit the needs of any school or instructor looking to incorporate outdoor learning into student educational experiences.

How to use this resource:

In order to ensure that an effective outdoor classroom is attainable for all schools, The Top 10 was developed with inclusivity in mind, and takes into consideration the unique context and nuance across a variety of schools (such as available space, resources, and community involvement). Within each category (i.e. seating, whiteboard, etc.), there are options provided in order of easiest to most difficult to implement. Often this means that options are also listed in order of least to most expensive; however, we have not included specific costs because prices will vary greatly depending on location and available resources. When available, we have incorporated construction plans, helpful links, or considerations to make before implementing in your own space. We recommend that most outdoor classrooms prioritize implementing the first eight elements listed before school begins, or early in the school year, even if only as temporary infrastructure to later be updated. By incorporating them early on, you will be able to establish norms and routines for how students interact with the space. As you are able, you can then improve each element individually, without needing to create entirely new student systems throughout the year. For many outdoor classrooms, this will be an ever-evolving process, as students come and go, plants grow, and educators become more familiar with the needs of their community and their green space. Ideally, though, these elements will always be present in some form, in order to best serve learners.

There are two related resources linked in the Table of Contents. *The Top 10: A Summary Guide* is a condensed picture guide. It includes a summary of each of the Top 10 elements, as well as considerations to make when choosing how to build your outdoor classroom. We suggest printing a hard copy of this summary guide to reference as you develop your own outdoor classroom. *The Top 10: An Extended Picture Guide* provides several picture examples for each of the Top 10 infrastructure elements in order to demonstrate the range that exists in outdoor classrooms. We suggest flipping through this picture guide online to gather inspiration for your own outdoor classroom.

Contributors:

This resource was created by numerous Education Outside staff and garden educators between 2016 and 2019. It was inspired by the school gardens in SFUSD and San Mateo County as well as the gardens at Life Lab and The Edible Schoolyard.

education OUTSIDE

RESOURCES

BUILDING YOUR OUTDOOR CLASSROOM: THE TOP 10

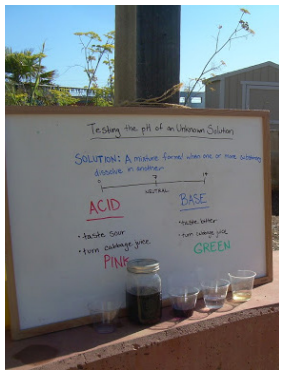
A Picture Guide

WHAT IS THE "TOP 10"?

The Top 10 is a list of ten infrastructure items that we believe every outdoor classroom should have. This picture guide begins with general pictures of outdoor classrooms across several different school sites. We then work through each item in the Top 10, providing several different examples of each in order to demonstrate the range that exists in outdoor classrooms. Use this picture guide as inspiration when developing your own outdoor classroom. If you'd like to reference a summary version of this document throughout your planning, you can find one in the Table of Contents.

Seating Circle

Whiteboard /Chalkboard



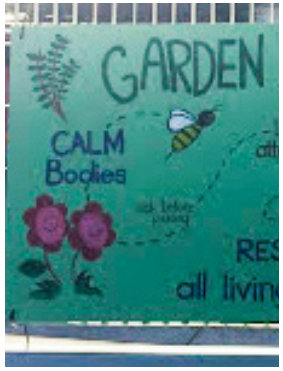
Teaching Table

Storage

Food Garden Area

Exploration Area

Garden Agreements



Stations

Signs

Additional Enhancements

OUTDOOR CLASSROOMS COME IN ALL SHAPES AND SIZES

Glen Park School, SF

OUTDOOR CLASSROOMS COME IN ALL SHAPES AND SIZES

Malcolm X Academy, SF

OUTDOOR CLASSROOMS COME IN ALL SHAPES AND SIZES

Marshall Elementary, SF

OUTDOOR CLASSROOMS COME IN ALL SHAPES AND SIZES

Miraloma Elementary, SF

OUTDOOR CLASSROOMS COME IN ALL SHAPES AND SIZES

Alice Fong Yu Alternative School, SF

#1: SEATING CIRCLE

A place for students to gather, especially for class openings and closings.

Options *(listed in order of ease to implement and, generally, cost)*	**Considerations**
On The Ground	- Inexpensive - Can paint sit spots on asphalt or use vinyl spot markers (P.E. teachers at school often have these!)
Stumps	- Can be obtained for free from tree removal services - Can use stumps as a tool to teach about tree rings or paint the tops - Should be dug into the ground for stability; can be wobbly on top of asphalt/concrete
Wooden Benches	- Should be built with redwood or another wood that will last outdoors - Use a sealant or paint to increase longevity - Moveable benches can be useful for small group work throughout the garden
Cob Benches	- Can be a good community build project & example of using natural materials - Requires upkeep and can fall apart, especially if unprotected from rain
Concrete/Stone Benches	- Expensive - Generally requires work from a licensed contractor

SEATING: ON THE GROUND

Dianne Feinstein Elementary, SF

San Francisco Community School, SF

SEATING: STUMPS

Claire Lilienthal Madison Campus, SF

Alice Fong Yu Alternative School, SF

Westlake Elementary, Daly City

John Gill Elementary, Redwood City

Lawton Alternative School, SF

Stumps can be painted with any garden-themed images, or in ways that help with classroom management. At left, alternating pairs of blue and purple stumps help the instructor easily divide students into two large groups (blue or purple), or pairs for think-pair-share discussions.

SEATING: WOODEN BENCHES

Marshall Elementary School, SF

Monroe Elementary School, SF

Claire Lilienthal Madison Campus, SF
To see the construction plan for this bench, see *Basic Construction Plans for School Garden Infrastructure* linked in the Table of Contents.

SEATING: COBB

Monroe Elementary School, SF

SEATING: CONCRETE/STONE

Glen Park Elementary, SF

Dolores Huerta Elementary School, SF

SEATING: AMPHITHEATER STYLE

Miraloma Elementary, SF
This is a more expensive option but is an effective use of space and ADA accessible.

ADDITIONAL THINGS TO CONSIDER WHEN MAKING A SEATING CIRCLE

How many students are in a typical class?

- Sit spots are helpful for spacing out students on wood or concrete benches. They are also a great classroom management tool. In the photo below, the instructor can group students by bench color (yellow, red, blue, purple), sit spot animal (butterfly, ladybug, dragonfly), or sit spot color (yellow, red) to form groups of different sizes.

How should seats be oriented in order to avoid having students look into the sun?

- Students have an easier time focusing if they're not looking into the sun, so it's worthwhile to be intentional about the orientation of your seating circle. Note, however, that if students are facing away from the sun the instructor will be looking into the sun!

How close will students be sitting to the ground?

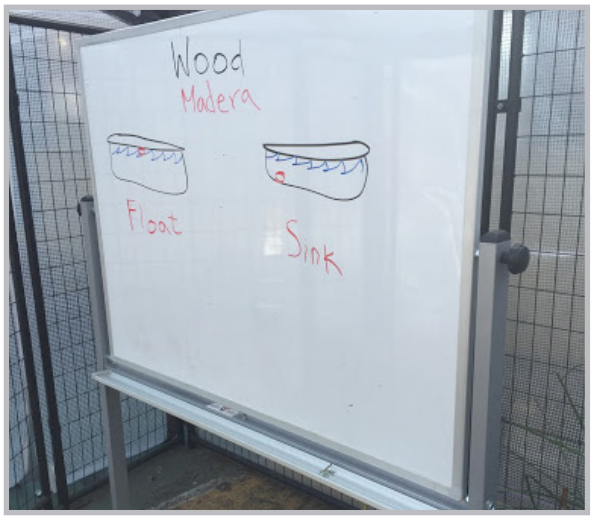
- Benches should be built at a height appropriate for students (~14-16" for elementary school). Students will likely be tempted to play with wood chips, decomposed granite, leaves, and other natural materials under foot. It's helpful to set seating circle expectations early in the year (i.e. "quiet feet in circle").

#2: WHITEBOARD/CHALKBOARD

Used to write agendas & instructions or to display visuals.

Options *(listed in order of ease to implement and, generally, cost)*	**Considerations**
Whiteboard / Chalkboard Easel	- Affordable and come in a variety of sizes - Can topple easily in the wind - Whiteboards can be easier to write on and clean off, but chalk boards do not create as much glare for students on sunny days
Free-Standing Whiteboard	- Affordable and come in a variety of sizes - Small boards can be useful for writing instructions for small group activities taking place at different locations throughout the garden, or for posting guiding questions for students throughout the garden
Large Whiteboard on Wheels	- Extra space for writing/hanging visuals - Can be expensive - Should be attached to a wall or weighted down, as these boards can fall over in heavy winds and become a safety hazard
Mounted Whiteboard	- Whiteboards/chalkboards can be attached to walls outside, though the method depends on the surface - Easier to use regularly because the board doesn't need to be transported in/out of storage - Boards have a shorter lifespan if not protected from the elements
Protected Whiteboards	- Expensive - Easier to use regularly because the board doesn't need to be transported in/out of storage - Last longer than unprotected outdoor whiteboards

WHITEBOARDS: FREE-STANDING



Large whiteboards are nice for extra writing space but should always be attached to a wall or weighted down, as these boards can fall over in heavy winds and can be a safety hazard.

WHITEBOARDS: EASELS & FREE-STANDING

Easels and free-standing whiteboards are simple, affordable and come in a variety of sizes. Though they can topple easily in the wind, their small size can be useful for writing instructions for small group activities or for posting guiding questions for students throughout the garden.

WHITEBOARDS: ATTACHED / MOUNTED

Westlake Elementary, SF

Claire Lilienthal Madison, SF

WHITEBOARDS: PROTECTED

Miraloma Elementary, SF
This whiteboard can be purchased here. The wood roof above the whiteboard was a custom addition to prevent water from pooling at the top of the board.

#3: TEACHING TABLE

A multi-purpose surface for lesson supplies & teacher materials

Options *(listed in order of ease to implement and, generally, cost)*	**Considerations**
Folding Table	- Inexpensive - Should be stored inside, protected from the elements
Wood Table	- Can be built or purchased - Can be left outside in a permanent location; use wood sealant to protect from the elements

TEACHING TABLES

Claire Lilienthal Madison Campus, SF

Dianne Feinstein Elementary, SF

Buena Vista Horace Mann K-8 Community School, SF

John Gill Elementary, Redwood City

Longfellow Elementary, SF

Wooden tables can be bought or built with storage underneath. For a teaching table construction plan, see Basic Construction *Plans for School Garden Infrastructure* linked in the Table of Contents.

ADDITIONAL THINGS TO CONSIDER WHEN MAKING A TEACHING TABLE

What is the primary use of the table?

Teaching tables can be great for setting up materials that students will access during lessons (i.e. worksheets, pencils, etc.). However, they often double as a space for teacher materials (i.e. chime/attention-getter, equity sticks, lesson plan). It can be helpful to differentiate these spaces. For instance, a bottom shelf can be used for student materials and a top shelf can be limited to teacher access only. Alternatively, if you have the space, you can designate one table as a teaching table and a separate table for student materials.

#4: STORAGE

For garden supples, lesson supplies, and more!

Options *(listed in order of ease to implement and, generally, cost)*	**Considerations**
Plastic Shed	- Affordable & come in a variety of sizes - Usually easy to assemble - Plastic can warp or break over time; shorter lifespan - Can add a lock but generally least secure option
Wood Shed Kit	- Come in a variety of sizes - Assembly varies in terms of difficulty - More aesthetically pleasing than plastic sheds - Can add a lock; more secure than plastic sheds
Tuff Shed	- Expensive - Customizable & very secure - High quality, last a long time - Price includes assembly on site

STORAGE: PLASTIC SHEDS

Starr King Elementary, SF

STORAGE: WOOD SHEDS

Sheridan Elementary, SF

STORAGE: TUFF SHEDS

George Peabody Elementary, SF

STORAGE: CUSTOMIZED SHIPPING CONTAINER

College Hill Learning Garden, SF

STORAGE: ORGANIZATION

Sheridan Elementary, SF

STORAGE: ORGANIZATION

Miraloma Elementary, SF

STORAGE: ORGANIZATION

Alvarado Elementary, SF

STORAGE: ORGANIZATION

Commodore Sloat, SF

STORAGE: ORGANIZATION

STORAGE: ORGANIZATION

Photo credit: Paige Green

Dolores Huerta, SF

STORAGE: ADDITIONAL IDEAS

Milk crates can usually be found for cheap or free

Old classroom furniture can often be salvaged and re-purposed for use outdoors. Check to see if your school is throwing away any furniture and save it from going to the dump!

This bench has storage built underneath

Clipboard organizers can be purchased or made

STORAGE: ADDITIONAL IDEAS

Alice Fong Yu Alternative School, SF

This custom whiteboard doubles as a storage unit for class folders

ADDITIONAL THINGS TO CONSIDER WHEN BUYING A SHED

Who will have access to the materials in the shed?

If you have space and funding, consider purchasing two sheds-- a large one to store teaching materials and larger garden tools that young students shouldn't directly access, and a smaller one for materials that young students can always access. The shed shown below is always open to students, and contains gloves, trowels, mud kitchen supplies, plastic bugs, and more.

Alice Fong Yu Alternative School, SF

#5: FOOD GARDENS

A designated growing area for students to interact with growing food and annual plant life cycles

Options *(listed in order of ease to implement and, generally, cost)*	**Considerations**
In Ground- Without Borders	- Inexpensive - If using native soil, make sure to have a soil test done first - Are likely to get stepped in and will spill over into pathways over time - Can make doing irrigation easier/less expensive
In Ground- With Borders	- Inexpensive - Borders can be created with a variety of found or bought materials
Raised Beds- Re-purposed	- Can be easier/less expensive than building beds - Keeps plants protected from being stepped on and underground pests - More control over soil quality - Need to be aware of the quality of material and any potential contaminants
Raised Beds- Built	- More expensive, but often longer lasting - A great opportunity to build community while constructing - Use wood that will last (redwood or cedar) from a trusted source
Containers	- Great for small spaces, or extending the garden into unlikely places! - Can be easily moved for different spacial or plant needs

FOOD GARDENS: IN GROUND

Sherman Elementary, SF

George Washington Carver Elementary, SF

FOOD GARDENS: IN GROUND

Reclaimed materials can be a good, inexpensive option; however, they can be easily moved by students and used inappropriately.

FOOD GARDENS: IN GROUND

Adding stepping stones or other obvious pathways can prevent students from walking on in-ground beds.

College Hill Learning Garden, SF
Photo credit: Paige Green

Having a strong and obvious border can help clearly mark the difference between walkways and garden beds.

Jefferson Elementary School, SF

Selby Lane, Redwood City

FOOD GARDENS: RAISED BEDS

Raised beds keep plants protected. They can also transform a hardscaped or unused area into a living classroom.

Spring Valley Science School, SF

Starr King Elementary, SF

FOOD GARDENS: RAISED BEDS

Miraloma Elementary, SF

Westlake Elementary, Daly City

Raised beds can be purchased or built. For a **raised bed construction plan** see ***Basic Construction Plans for School Garden Infrastructure*** linked in the Table of Contents.

FOOD GARDENS: IN GROUND & RAISED BEDS

Using a combination of different growing areas adds variety to the space and creates interesting height variety. This is also helpful for students with a range of heights and abilities.

Marshall Elementary, SF

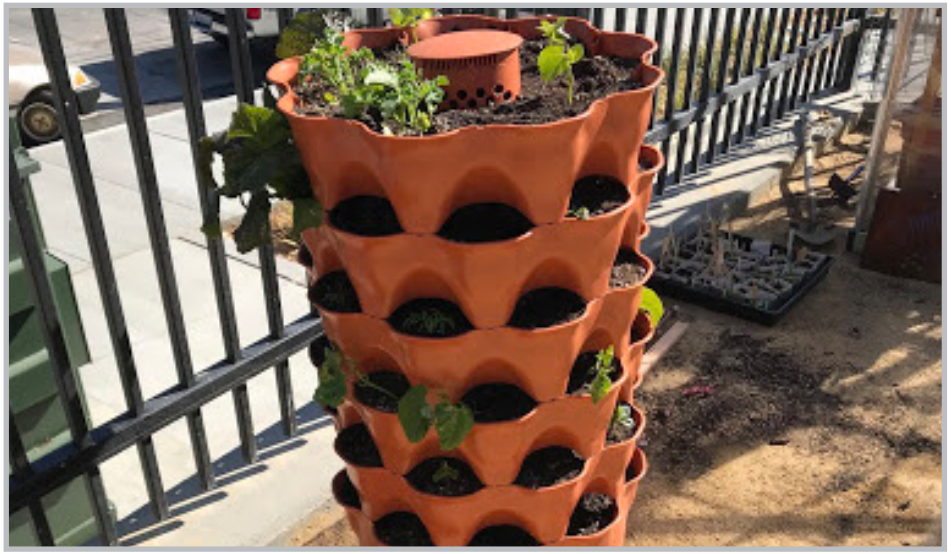
FOOD GARDENS: CONTAINERS

Peabody Elementary, SF

Most schools, especially urban schools, will need to plant in containers. Containers are a great choice for many vegetables, herbs, and even lemon trees. However, planting in containers requires special considerations:

- Research the plants you're planning to grow and make sure containers are deep enough
- Ensure good drainage with holes in the bottom
- Use a planting mix or potting soil from a nursery instead of garden soil- these mixes ensure that the soil maintains good drainage and even moisture levels in containers

Peabody Elementary, SF



Bayshore Elementary, Daly City

FOOD GARDENS: INTEGRATED WITH SCHOOL YARD

Dianne Feinstein Elementary, SF
Gardens can be integrated with the yard where students play during recess.

FOOD GARDENS: INTEGRATED WITH SCHOOL YARD

Buena Vista Horace Mann K-8 Community School, SF

Outdoor classrooms that are integrated with a recess yard can increase access for students throughout the day. However, it can be challenging to maintain green spaces in areas where students run, kick balls, and play other recess games. A few tips for maintaining outdoor spaces on recess yards:

- Try to distinguish where the outdoor classroom begins and the recess yard ends, using fencing, signs, or paint on the asphalt
- Plant larger, hearty perennials around borders or in high traffic areas
- Have an adult present as much as possible during recess time to monitor activities in the garden
- Utilize the garden agreements established for class time
- Be forgiving- Understand that most green spaces on recess yards will inevitably be hit with balls and some plants will be accidentally trampled. Do your best to minimize damage but be flexible. And remember that students benefit from ready access to the school's green spaces!

#6: EXPLORATION AREA

Exploration areas are green spaces not focused on food production. They are aesthetically enticing places for students to explore and interact with nature!

Options *(listed in order of ease to implement and, generally, cost)*	**Considerations**
"Forest Area"	- Even small spaces can feel like a forest to a child! Consider utilizing plants of various heights, habits, or seasonal changes to make it enticing for many ages throughout the year - Training or pruning your plants to create "hiding spots" will draw students in and foster a connection to the space through fun and security
Pathways	- Using mulch or another distinguishable material for your pathways will help direct students towards the appropriate exploration areas and away from places they shouldn't disturb - Adding stepping stones, arrows, or tree stumps adds an extra element of fun and directs student exploration. They can also be moved regularly to change up the flow of the space
Interactive Elements	- For small spaces with limited space for planting perennials, think about ways you can utilize multiple dimensions through interactive activities built into your design

EXPLORATION AREA: "FOREST"

Monroe Elementary, SF

Exploration areas are spaces in your outdoor classroom not focused on food production, but are inviting places for students to explore or interact with the space. Depending on space available, they can be large "forested" areas or small but unique areas that draw students' attention.

EXPLORATION AREA: "FOREST"

Exploration areas can include designate good areas to sit and observe. Using a simple trellis to create a tunnel can create mystery and shade.

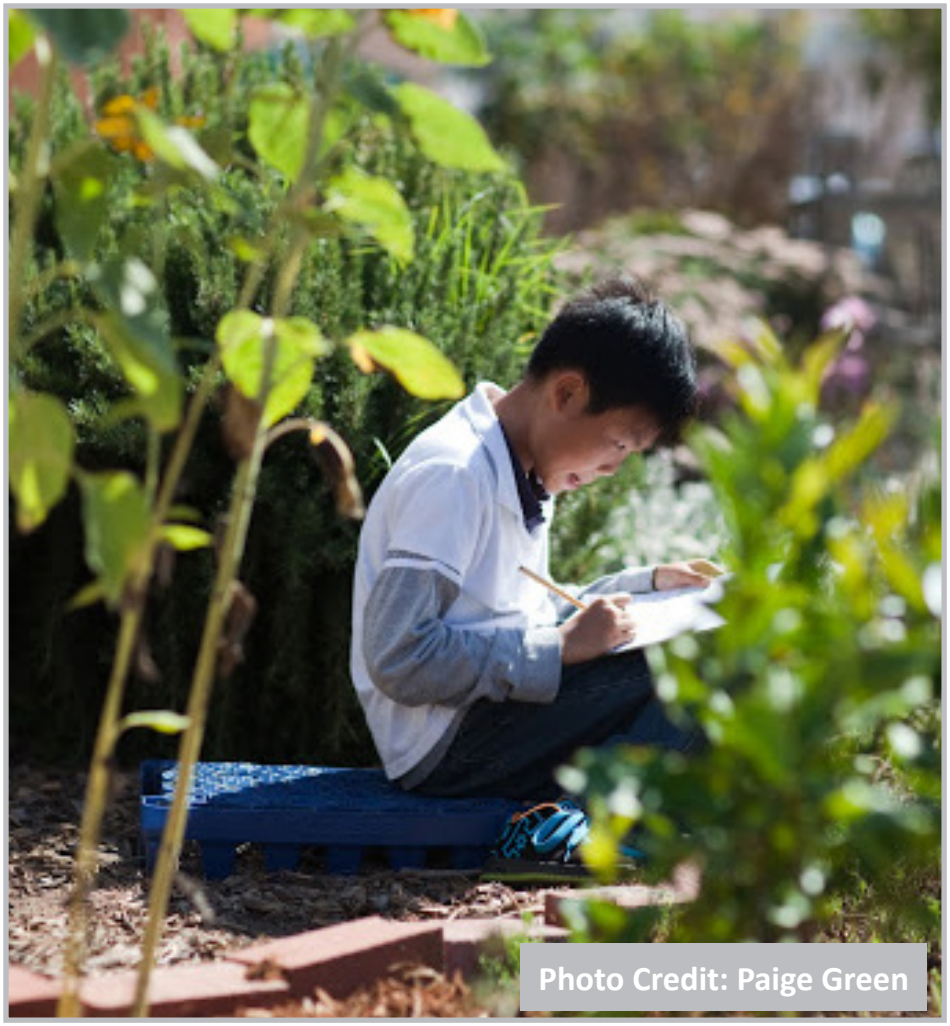
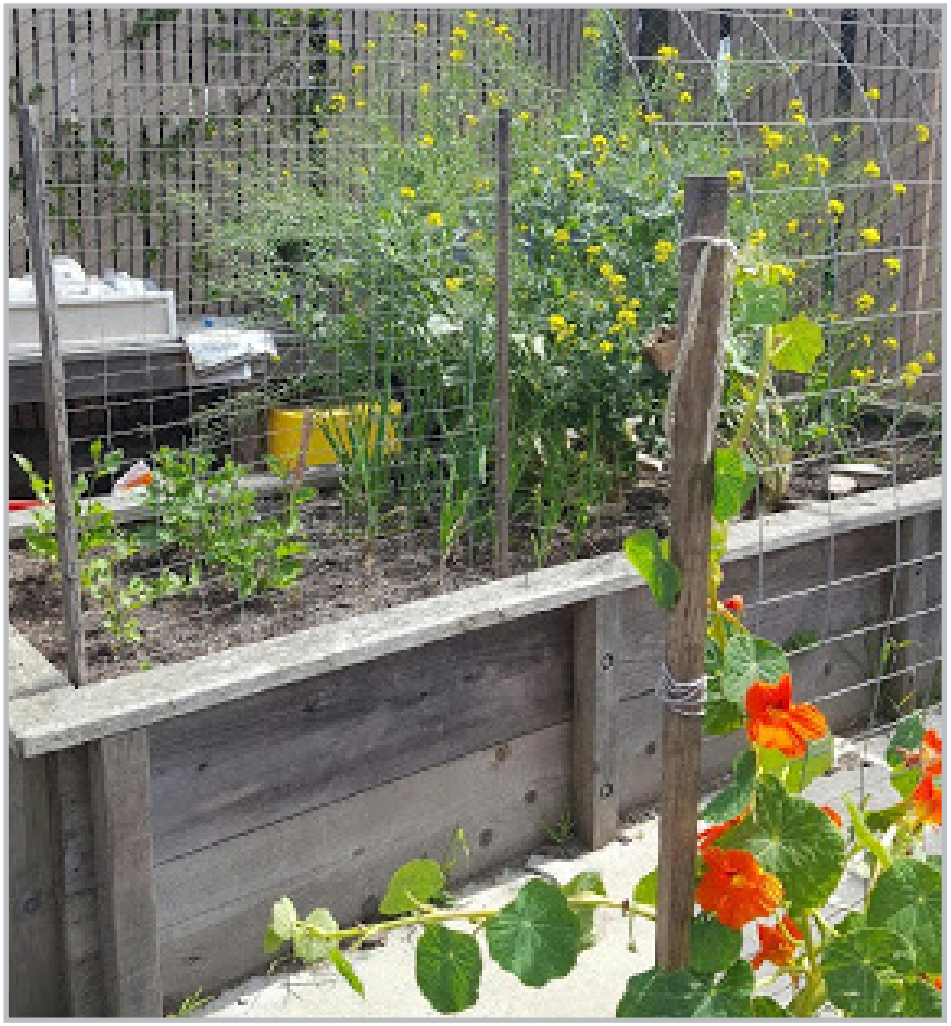


Photo Credit: Paige Green

Marshall Elementary, SF



Lafayette Elementary, SF

EXPLORATION AREA: "FOREST"

Plants don't need to be big or tall. Sturdy perennials are great for filling out "forest" areas.

Moscone Elementary, SF

Marshall Elementary, SF

EXPLORATION AREA: "FOREST"

A small or concrete area can still look wild with interactive elements, such as stumps to walk and jump on, between perennials in containers

Sheridan Elementary, SF

EXPLORATION AREA: PATHWAYS

Spring Valley Science School, SF

Stepping stones add beauty and direction for students. They are especially attractive if you've made them together!

EXPLORATION AREA: PATHWAYS

Spring Valley Science School, SF
Mulch is another great way to delineate pathways and can be less dusty than dirt pathways.

Spring Valley Science School, SF
A combination of stepping stones and borders makes movement through the garden clear and easy for students!

EXPLORATION AREA: INTERACTIVE ELEMENTS

**If you have a fence or wall, think of ways to use it as an exploratory area.
This water wall has many different features to interact with depending on where, and how much, water is added.**

Bret Harte Elementary, SF in partnership with Tap the Sky

EXPLORATION AREA: INTERACTIVE ELEMENTS

Roosevelt Elementary, Redwood City

Argonne Elementary, SF

Students can pour water in these gutters to explore how water flows.

#7: GARDEN AGREEMENTS

These norms are established between students and instructor at the beginning of the year, and help ensure positive classroom culture

Options *(listed in order of ease to implement and, generally, cost)*	**Considerations**
Laminated	- Cheap and easy, you can even use sheet protectors if a laminator is not available - Best for short term signage that can be taken down and stored when not in use to avoid weather damage
Painted	- Long lasting and relatively inexpensive - Can mirror school wide agreements or be unique to the garden, but should be straightforward and easy to remember or recite
Multilingual	- Helps foster an inclusive classroom if all students are able to read and understand the outdoor classroom agreements
Unique!	- Agreements can be posted throughout the classroom or in one central location for everyone to refer to - Involve students in the creation or painting of garden agreements to increase investment in following them

GARDEN AGREEMENTS: LAMINATED

Alice Fong Yu Alternative School, SF
Laminated paper signs can work, but are susceptible to sun and water damage.

GARDEN AGREEMENTS: PAINTED

Claire Lilienthal Madison, SF

Accompany words with pictures for ELL students and varied reading levels. See #9, Signs, for tips.

Claire Lilienthal Madison, SF

GARDEN AGREEMENTS: PAINTED

Paul Revere Elementary, SF

CIS de Avila, SF

GARDEN AGREEMENTS: PAINTED

Accompany words with pictures for ELL students and varied reading levels.

Peabody Elementary, SF

Jefferson Elementary, SF

GARDEN AGREEMENTS: MULTILINGUAL

For immersion or bilingual schools, write agreements in multiple languages.

Alice Fong Yu Elementary, SF

Marshall Elementary, SF

Sanchez Elementary, SF

GARDEN AGREEMENTS: UNIQUE!

Have students help make the agreements or signs, and have them "sign" it with a fingerprinting flower. Update them every year or two to increase student buy in.

Miraloma Elementary, SF

Moscone Elementary, SF

#8: GARDEN STATIONS

Garden Stations are activities that students learn early in the year, and are able to engage in autonomously with practice. They can be "open" or "closed" during recess or other free time, as decided by the instructor. They can also be used for "early finisher" activities during class time. Stations marked with an asterisk below are the ones we suggest implementing first in a new garden.

1. Waterering Stations*

2. Dig Zone*

3. Worm Bin*

4. Bug Hunt

5. Seed Sorting

6. Habitat Building/ Fairy Houses

7. Mud Kitchen

8. Color Hunt

9. Litter Patrol/ Sweeping

Photo Credit: Paige Green

Glen Park Elementary, SF

STATION 1: WATERING

At this station students practice appropriately watering plants in the garden.

Materials

- Student-friendly watering cans (plastic milk jugs or yogurt containers work well too!)
- Water source
- Bin full of water for easy student access (make sure you turn the bin upside down or empty when not in use to ensure you don't have standing water where mosquitoes will breed).

Rules for Students

- "Low and slow, water like a pro"
- Use two hands
- Walk
- Fill the can halfway so it's not too heavy
- Always return supplies

WATERING STATION: CONTAINER / BASIN

Moscone Elementary, SF

WATERING STATION: CONTAINER / BASIN

Sanchez Elementary, SF

Mission Education Center, SF

WATERING STATION: CONTAINER / BASIN

Robert Louis Stevenson Elementary, SF

WATERING STATION: WATERING CAN STORAGE ON RECYCLED PALLETS

Paul Revere Elementary, SF

Starr King Elementary, SF

WATERING STATION: WATERING CAN STORAGE ON BICYCLE HOOKS

Westlake Elementary, SF

Alice Fong Yu Alternative School, SF

WATERING STATION: SPIGOT / HOSE

Peabody Elementary, SF

It can be difficult for small children to adjust water flow from a spigot. This attachment allows the teacher to adjust the water flow with the knob, while students can turn the water on and off using the red handle.

Alice Fong Yu Elementary, SF

PVC pipes and recycled tubing from a laundry machine were attached to this spigot, allowing students to more easily control the flow of water into their watering cans. The spigot splits into three tubes to allow multiple students to fill at once.

STATION 2: DIG ZONE

Students dig in an empty bed to search for critters, practice engineering, observe water & erosion, etc.

Materials
- Trowels
- Designated area for students to dig

Rules for Students
- Keep the soil in the bed ("low and slow, like a pro")
- Practice good technique (dig to the side instead of flinging dirt out)
- Specify times when the dig zone is open or closed

Marshall Elementary, SF

Photo credit: Paige Green

DIG ZONE: A DESIGNATED BED

Sheridan Elementary, SF

Lawton Alternative School, SF

If dig zones are contained in garden beds it prevents dirt from spreading and ensures that boundaries are clear for students. Shapes with larger perimeters allow for more students to dig at the same time.

DIG ZONE: RAISED BED ROTATION

Moscone Elementary, SF

Alice Fong Yu Alternative School, SF

The dig zones here rotate from bed to bed throughout the school year depending on what's growing in the garden and which beds are empty.

STATION 3: WORM BIN

Students search for and observe worms and other decomposers.

Materials

- Worm Bin
- Trays (useful if students want to look but not touch)
- Magnifying Glasses
- **Worm Bin Bingo Sheets** (optional)

Rules for Students

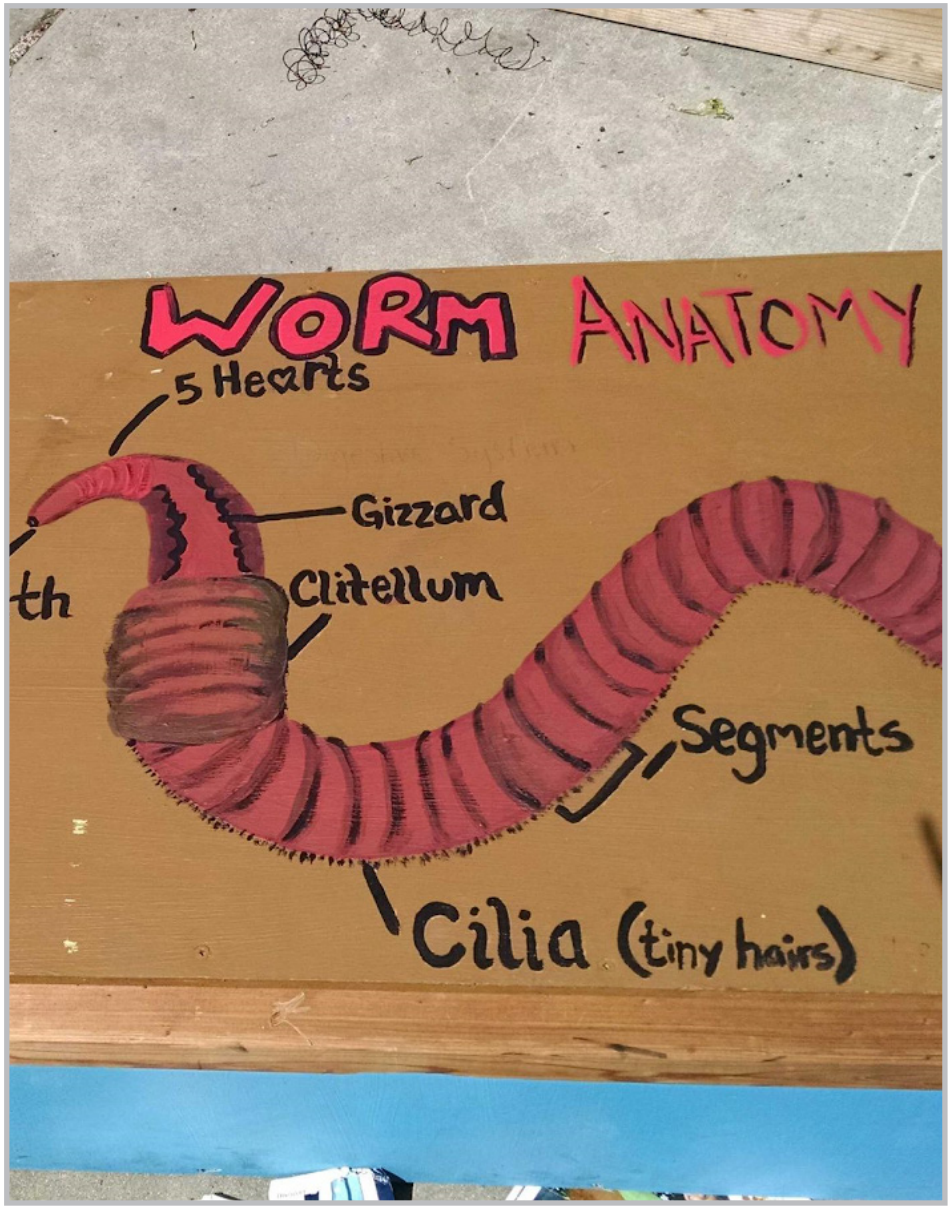
- Respect all living things
- Hold worms flat in hands
- Use a stick (not a magnifying glass) to dig
- Return worms to their home when done

Photo credit: Paige Green

WORM BIN: PURCHASED OR DIY PLASTIC BIN

Worm bins can be purchased online or made by drilling holes in plastic, stackable bins

WORM BIN: DIY WOOD BIN



Sheridan Elementary School, SF

STATION 4: BUG HUNT

Students search for critters in various garden habitats.

Materials

- **Bug boxes** or small plastic cups
- Magnifying glasses

Rules for Students

- Respect all living things
- Use a stick (not a magnifying glass) to dig
- Return bugs to their home when done
- If you move something (i.e. a rock, log, etc.) move it back

Paul Revere Elementary, SF

Students might need guidance about where to look for bugs at the beginning of the school year, but they'll soon learn all of the good spots in the garden.

STATION 5: SEED SORTING

Students sort various large seeds into egg cartons.

Materials

- Egg cartons
- Large container(s) with mixed seeds (Lima beans, black beans, fava beans, etc. Purchase in the grocery store bulk bins.)

Rules for Students

- Collect all seeds and return to the big bin when finished

Photo credit: Paige Green

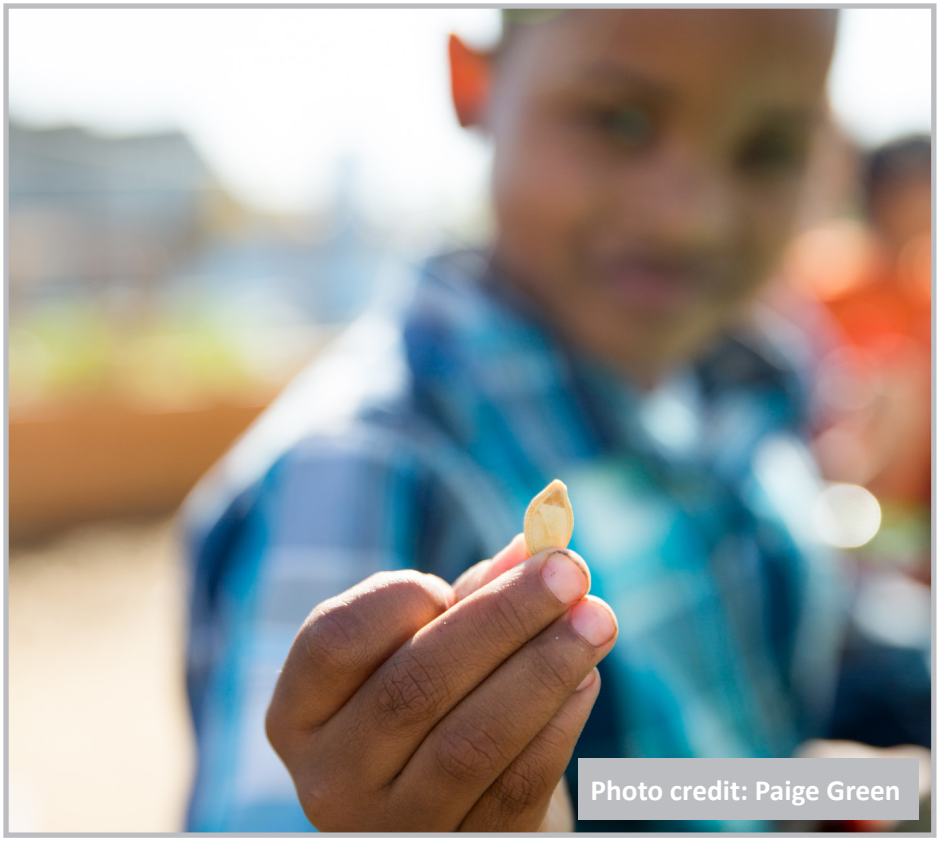


Photo credit: Paige Green

SEED SORTING

Tip: Pour a portion of mixed seeds into the top of the egg carton for each student, so they're not reaching over each other into a single large container.

STATION 6: HABITAT BUILDING / FAIRY HOUSES / NATURE ART

Students use natural materials to build small houses or habitats for garden creatures.

Materials

- **Miscellaneous natural building materials (small stumps, pine cones, twine, plant materials)**
- **Fairy Houses book (optional)**
- **Examples of nature art from artists like Andy Goldsworthy**

Rules for Students

- **Provide clear guidelines on where/what they can pick from the garden, and where they can build**

Miraloma Elementary, SF

NATURE ART

For younger students it can be helpful to pick leaves and other materials beforehand and arrange them in bins. This prevents over-picking from plants you want to keep alive, and also helps make the task less abstract for students.

STATION 7: MUD KITCHEN

Students pick leaves and other materials from the garden, and use bowls/baskets/spoons/etc to pretend to cook.

Materials

- Baskets
- Wooden bowls
- Plastic bin to store mud kitchen materials

Rules for Students

- Provide clear guidelines on where/what they can pick from the garden, and where they can "cook"

STATION 8: COLOR HUNT

Students find items in the garden that match the color of paint chips.

Materials

- Paint chips from a hardware store

Rules for Students

- Provide clear guidelines on where/what they can pick from the garden. Alternatively, students can simply hold the paint chip next to items in the garden without picking them.

STATION 9: LITTER PATROL / SWEEPING

Students pick up trash and sweep in designated areas of the garden.

Materials

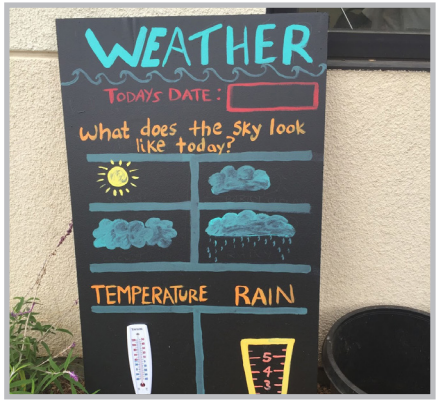
- Trash pickers (optional)
- Gloves
- Bucket
- Rake/broom

Rules for Students

- Use tools properly (keep the brooms below the knee)
- If you find glass or another sharp object, tell a teacher; don't use your hands to pick it up

#9: SIGNS

Make the outdoor classroom more inviting, interactive, and informative.

Welcome to the Outdoor Classroom		Height Charts	
Weather		Diagrams	
Direction Posts		Plant ID Signs	

Recycled Wood Scraps

- Materials or salvage yard
- Craigslist free list
- Teachers or parents sometimes know contractors with scrap wood

Exterior Plywood, ~ ¾ inches thick

- Exterior plywood is bonded with water-resistant glue
- Obtain from a hardware store

MDO Plywood, ¾" thick

- MDO is more expensive but will last longest outside, is warp-proof, and provides a smooth surface for painting
- Obtain from a hardware store

#1 Primer

- Smoothes painting surface
- Prevents paint from peeling
- Prevents water damage
- Apply 2 coats to front, back and sides, drying in between

#2 Paint

Choose a water-based (latex) exterior paint. Paints that have a higher acrylic resin content (i.e. labeled 100% acrylic) are more expensive, but will last longer and won't fade as fast as paints with less acrylic/more vinyl resins.

#3 Seal

- Coat the back and sides of the board with a clear, waterproof varnish.
- Coat the front with a waterproof sealer. Sheercoat is a great option, providing UV and graffiti protection.

Additional Tips

- Choose low or zero VOC options whenever possible.
- Avoid washing brushes unnecessarily. Brushes wrapped in an airtight plastic bag will remain moist ~ 1 week, and can be reused without washing.

Hang from chain link/ metal fence

- Drill holes & use zip ties and/or hanging wire through holes of sign and fence to mount

- Use scrap wood to attach sign using a bolt & nut

SIGNS: WELCOME

Lawton Elementary, SF

SIGNS: WELCOME

Claire Lilenthal - Madison, SF

Dianne Feinstein, SF

Mission Education Center, SF

SIGNS: WELCOME

Photo credit: Paige Green

Marshall Elementary, SF

Sheridan Elementary, SF

SIGNS: WEATHER

Mission Education Center, SF

Weather stations *do not* need to be complicated in order to be successful! They can be as simple as this invitation to observe the clouds!

Basic weather stations include:

1. Thermometer
2. Rain Gauge
3. Cloud cover

SIGNS: WEATHER

Additional weather station elements include...

1. Wind observation

Sanchez Elementary, SF

2. Cloud types

Dianne Feinstein Elementary, SF

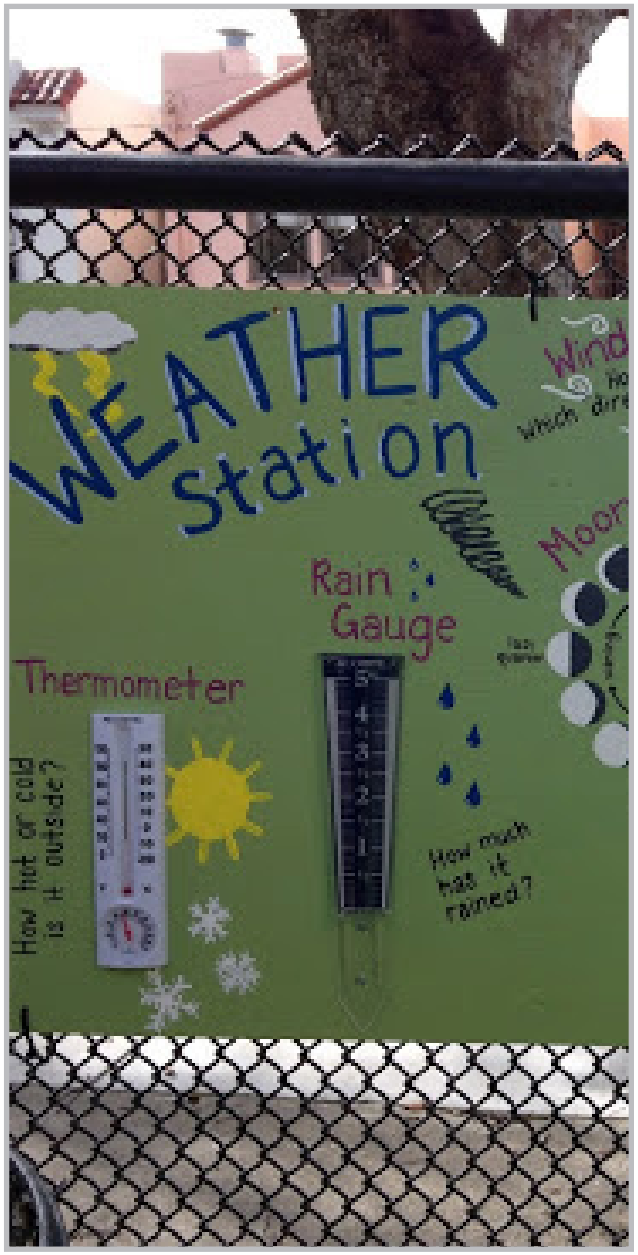
3. Calendar

Sanchez Elementary, SF

SIGNS: WEATHER

Dianne Feinstein Elementary, SF

Peabody Elementary, SF



SIGNS: DIRECTION POSTS

Miraloma Elementary, SF

Peabody Elementary, SF

SIGNS: DIRECTION POSTS

Tip: Pick locations that the students will relate to (or let them pick the locations!)

Buena Vista Horace Mann, SF

Dianne Feinstein Elementary, SF

SIGNS: DIRECTION POSTS

Claire Lilienthal Madison Campus, SF

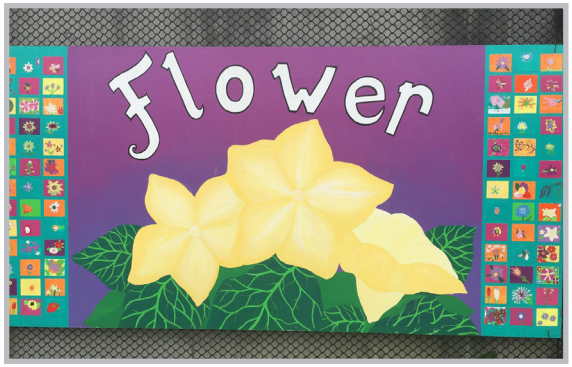
SIGNS: HEIGHT CHARTS

Starr King Elementary, SF

Claire Lilienthal Madison Campus, SF

Sheridan Elementary, SF

SIGNS: DIAGRAMS



Dianne Feinstein Elemenary, SF

Here, students painted on Tyvek fiberglass paper squares, which were then adhered to the MDO plywood with putty, forming a border.

SIGNS: PLANT ID

Use chalk paint to easily add/change plant ID signs. This also helps if students tend to pull signs out of beds!

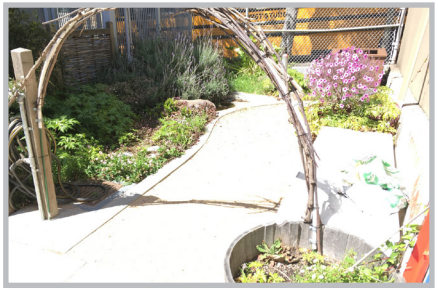
Plant ID signs can be made of any kind of scrap wood. Paint sticks work well and are free!

SIGNS: PLANT ID

It is helpful to use signs to indicate where seeds have been planted.

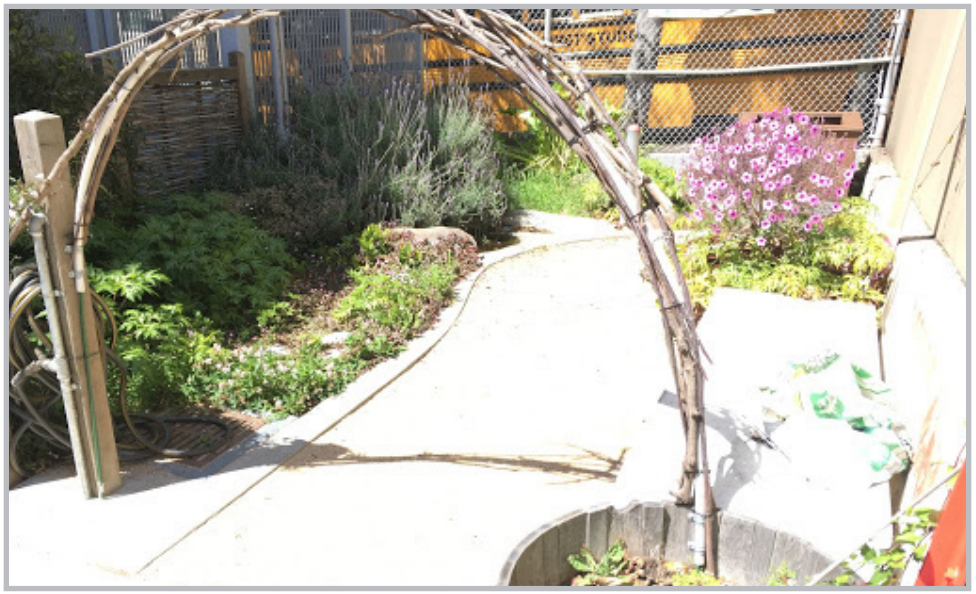
#10: ADDITIONAL ENHANCEMENTS

Anything else to make your space unique and fit your students' needs.

Peace Corner / Peace Path		Shade Structure	
Tunnel		Murals	
Sink		Gratitude Walls	
Compost Bin		Observation Stations	

ADDITIONAL ENHANCEMENTS: PEACE CORNERS

Mission Education Center, SF



Spring Valley Science School, SF

Dianne feinstein Elementary, SF

Roosevelt Elementary, Redwood City

ADDITIONAL ENHANCEMENTS: PEACE PATH

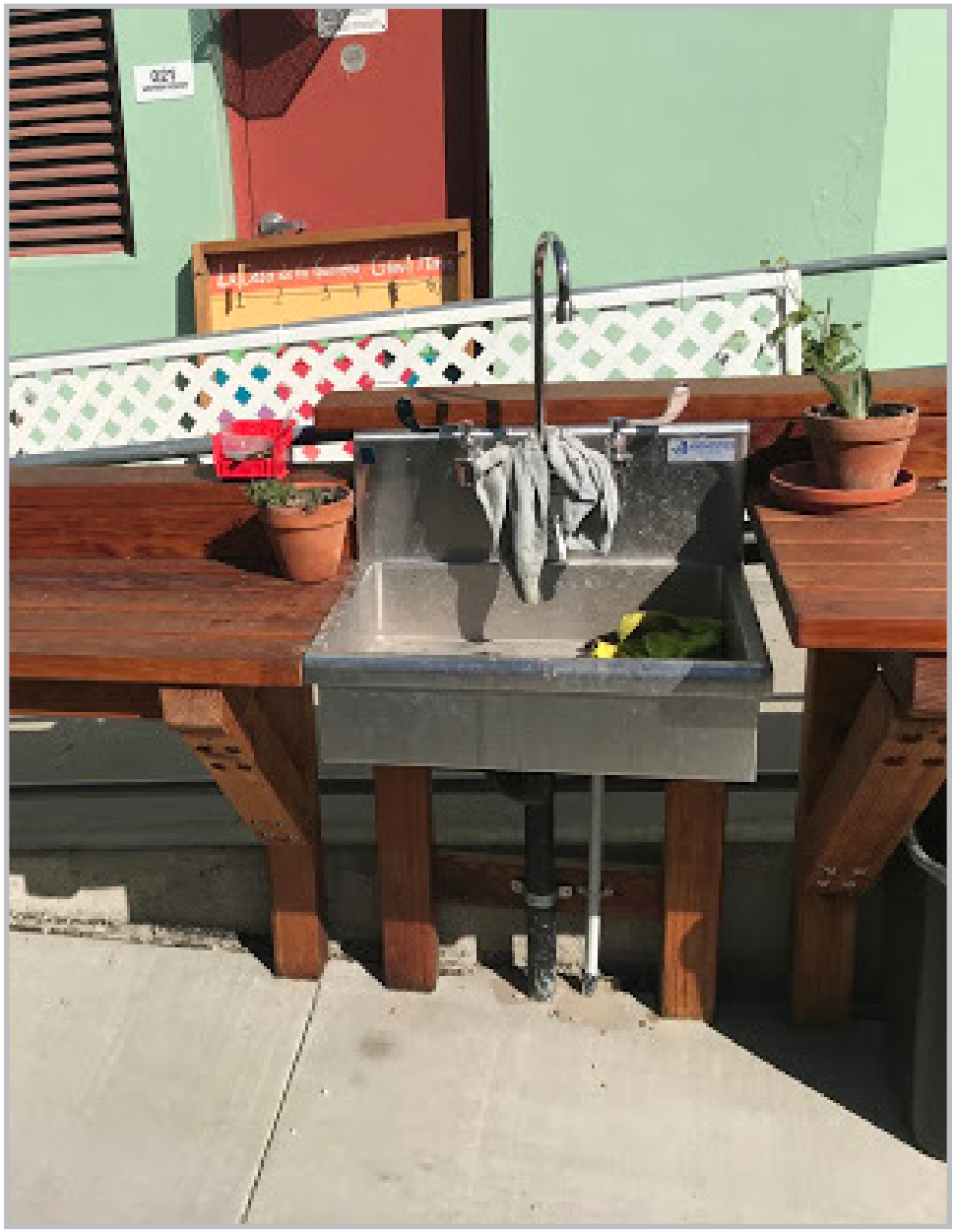
Cleveland Elementary, SF

Paul Revere Elementary School, SF

ADDITIONAL ENHANCEMENTS: TUNNELS

Chinese Immersion School de Avila, SF

ADDITIONAL ENHANCEMENTS: SINK



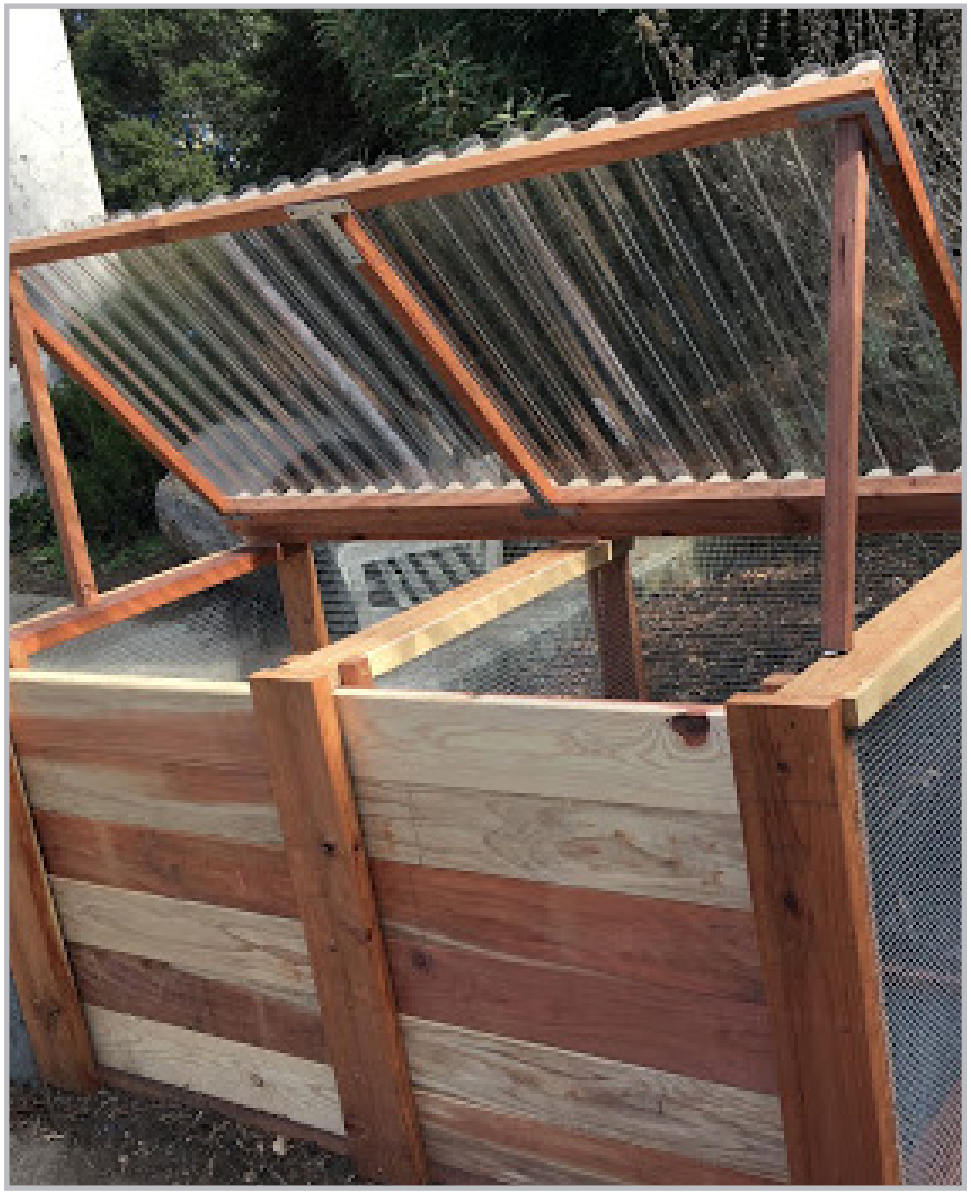
Paul Revere Elementary School, SF

Starr King Elementary, SF

ADDITIONAL ENHANCEMENTS: SINK

Alice Fong Yu Alternative School, SF
This sink doubles as a teaching tool! It has a clear drain pipe so students can see greywater draining out and watering a rain garden down below.

ADDITIONAL ENHANCEMENTS: COMPOST BIN



Sloat Elementary, SF

Peabody Elementary, SF

ADDITIONAL ENHANCEMENTS: COMPOST

Roosevelt Elementary, Redwood City

ADDITIONAL ENHANCEMENTS: SHADE STRUCTURE

Leonard Flynn Elementary, SF

ADDITIONAL ENHANCEMENTS: MURALS

Chinese Immersion School de Avila, SF

Cobb Elementary School, SF

ADDITIONAL ENHANCEMENTS: GRATITUDE WALLS

Roosevelt Elementary, Redwood City

Robert Louis Stevenson Elementary, SF

ADDITIONAL ENHANCEMENTS: OBSERVATION STATIONS

Glen Park School, SF

Mission Education Center, SF

A NOTE TO END

We hope that this "Top 10" Picture Guide has provided you with inspiration for setting up your own outdoor classroom. We encourage you to visit school gardens and other outdoor educational spaces, as these spaces are best observed up close. For additional inspiration, check out the resources listed below.

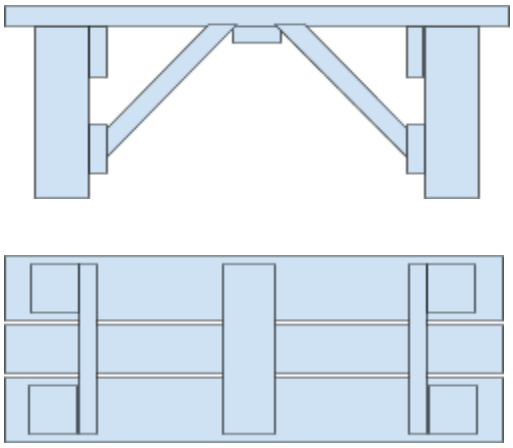
- "**How to Grow a School Garden: A Complete Guide for Parents and teachers**" by Arden Bucklin-Sporer and Rachel Kathleen Pringle
- Life Lab's ***Starting a School Garden*** resources
- Life Lab's ***School Garden Elements*** photo albums

All photos included in this picture guide, except those explicitly credited, were taken by Education Outside staff or AmeriCorps members.

Photo credit: Paige Green

BENCH PLAN

This bench plan serves as an easy guide in creating benches for any outdoor classroom. This bench is recommended because of its sturdiness, modularity, multiple functions and relative ease of assembly. This plan includes a list of materials, cut list, price estimations and step by step assembly instructions. Each bench is 48” inches long and comfortably fits 3 students.



Materials:
Gloves
Eye Protection
Pencil
Ruler
Tape Measure
Drill bit (make sure it matches screw heads)
Drill
Lumber
2.5” decking screws
Miter saw (if you are planning to cut the wood yourself)
½” spacer (optional, but very helpful)
Spar Urethane outdoor stain
Foam brush

Cut list per bench:
***Cuts have labeled as letters so that you can see how to assemble by cut later**

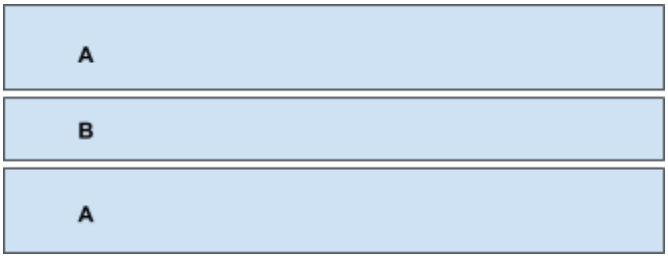
2x6 boards	2x4 boards	4x4 boards
(2) 48” (**A**)	(1) 48” (**B**)	(4) 14” (**E**)
	(5) 13.5” (**C**)	

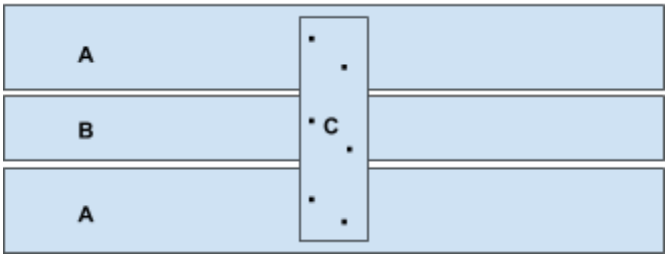
	(2) 14” (**D**)	

Prices for Lumber *Lumber is purchased in 8 foot boards (96 inches) then cut into pieces ready for assembly. Prices vary by location and quality of wood *Also expect to spend approx $40 on screws	Total Boardage (8 benches)	Redwood price	Pine Price
	(12) 2x4x96”	$94.68	$32.64
	(8) 2x6x96”	$97.60	$73.54
	(5) 4x4x96”	$82.10	$39.90
	Total:	$274.38	$146.08

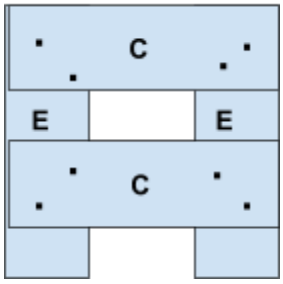
Assembly instructions:

1. Assembling seat
    a. Lay out the three seat pieces (ABA) with ½” gap between each piece. It’s useful to have multiple ½“ spacers for this step.
    b. Measure 22¼“ from each end of ABA pieces (lengthwise) and ½“ on A pieces (widthwise) to center brace (C).
    c. Drive 6 screws through C piece into seat (2 screws in A, 2 screws in B, 2 screws in A) Stagger screws diagonally to avoid splitting wood.

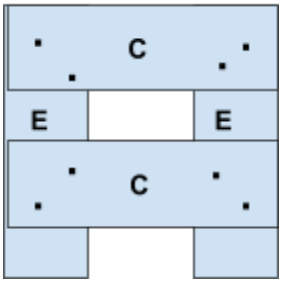




2. Assembling Legs
    a. Lay out 2 (E) pieces parallel to each other and place 2 (C) pieces on top perpendicularly.
    b. The upper (C) brace should be flush with the tops of the (E) pieces. The lower (C) piece is placed 4” from the bottom of the (E) pieces.
    c. Hold (C) pieces steady over (E) pieces and screw 1 screw into each corner.



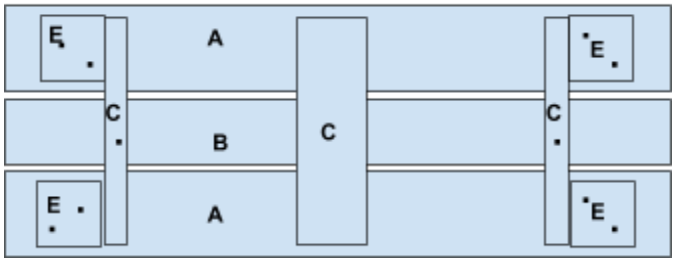
d. Square the legs before screwing second screw into each corner. This step is to ensure the bench legs are as even as possible to prevent wobbling. Measure the distance between diagonal corners (top left to bottom right and top right to bottom left). They should be the same length. Adjust the distance by tapping until both measurements are within ¼" of each other.



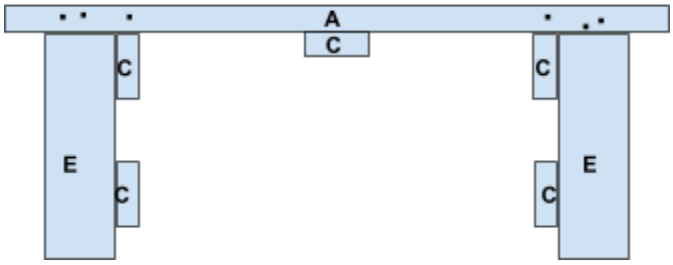
e. Once square, screw in second screw for each corner.

3. Seat and Legs

a. This is the trickiest part! For each bench set up 2 pairs of legs (braces inward) and ___" apart, measuring from inside edge of (E) pieces.



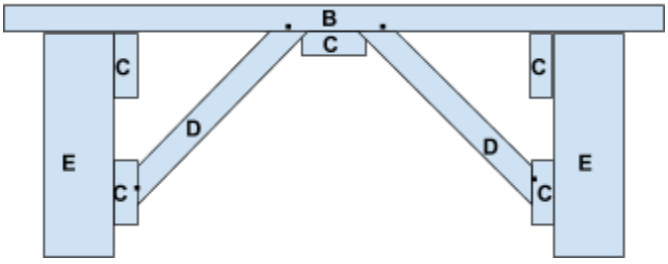
b. Lay the assembled seat on top of legs. In order to align seat and legs, measure 6" from ends of (ABA) pieces to where the legs start. There should also be a ½" overhang on the sides of (ABA) pieces above the legs. This step requires two people doing a lot of measuring and adjusting until its just right!



c. Once aligned, drive 10 screws in total into top of bench. 5 screws per side. 2 diagonally into each (E) piece and then 1 on each side of (B) piece into (C) brace on legs.

4. Reinforcing with angled braces

f. Carefully flip nearly completed bench upside down so legs are in the air. Place angled braces (D) so each one runs diagonally from center seat (B) piece up to the lower (C) brace.

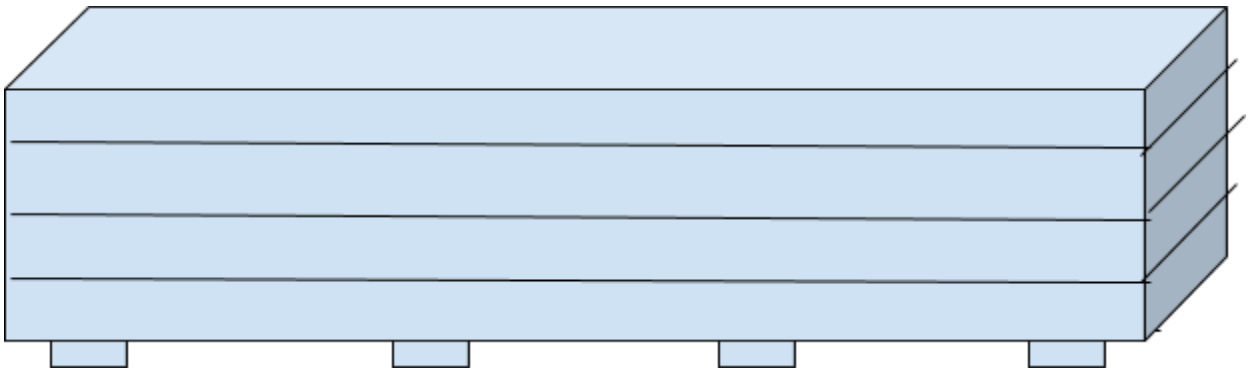


Additional tips:

g. Do not assemble one bench at a time start to finish. Assemble seats needed for all benches at once, then do all of the legs. This method has proven to more efficient and with better end products.
h. Pre-drilling holes for screws is good practice but not always necessary for certain assembly steps or for more experienced builders. Pre-drilling is definitely recommended for step 4 (angled braces).

RAISED BED PLAN

This raised bed plan serves as an easy guide to creating a standard raised bed for an outdoor classroom. The raised bed can be built for both impermeable (concrete, asphalt etc.) and permeable (soil, grass etc.) surfaces. If you plan to place the bed on a permeable surface, you may omit the feet noted on step 3. This raised bed measures 96” x 32” x 24”. The design can easily be altered to match you prefered measurements. Redwood lumber is suggested, and please keep in mind that you should never use pressure treated wood if you are planning to grow food in the beds.



Materials:
Gloves
Eye Protection
Pencil
Ruler
Tape Measure
Drill bit (make sure it matches screw heads)
Drill
Lumber
2.5” decking screws
Miter saw (if you are planning to cut the wood yourself)
Hardware cloth
Wire cutter
Staples
Staple gun
Landscape fabric
Soil, compost, etc.

Cut list per bed:

2x6 (frame and walls)	**2x4 (feet) *Omit if bed is placed on permeable surface**	**4x4 (posts)**
(8) 96”	(4) 32”	(4) 22”
(8) 32”	(2) 22”	

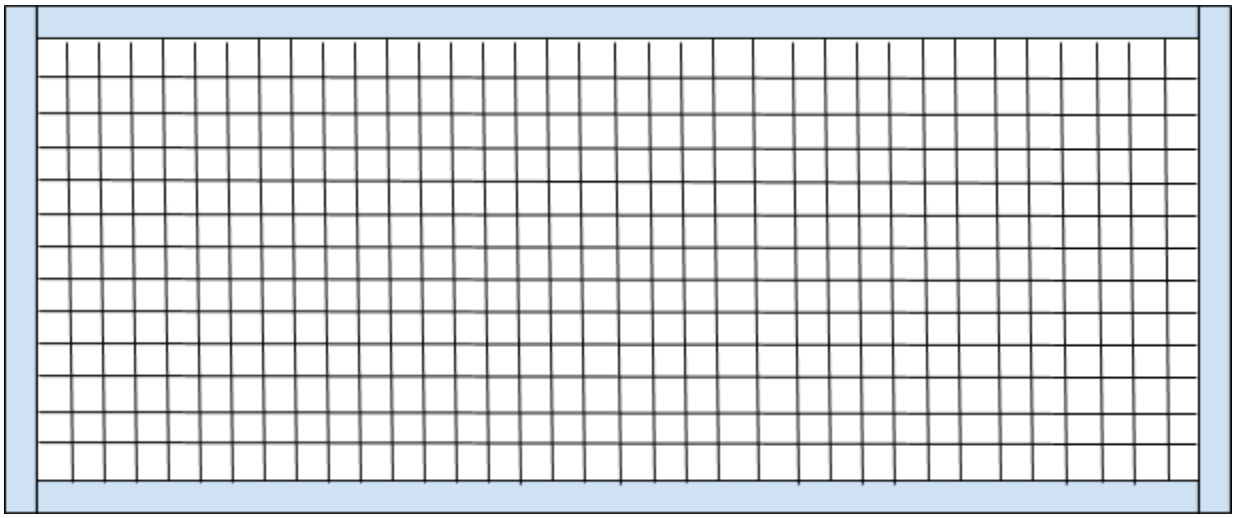
Lumber	Total Boardage (1 raised bed)	Redwood price
Lumber is purchased in 8 foot boards (96 inches) then cut into pieces ready for assembly. Prices vary by location and quality of wood. Also expect to spend approx $40 on screws, $20 on landscape cloth, $10 on staples, and $50 on hardware cloth	(11) 2x6x96”	$141.68
	(2) 2x4x96” *omit if bed is placed on permeable surface	$23.14
	(1) 4x4x96”	$18.88
	Total:	$183.7

Assembly instructions:

1. Assemble frame

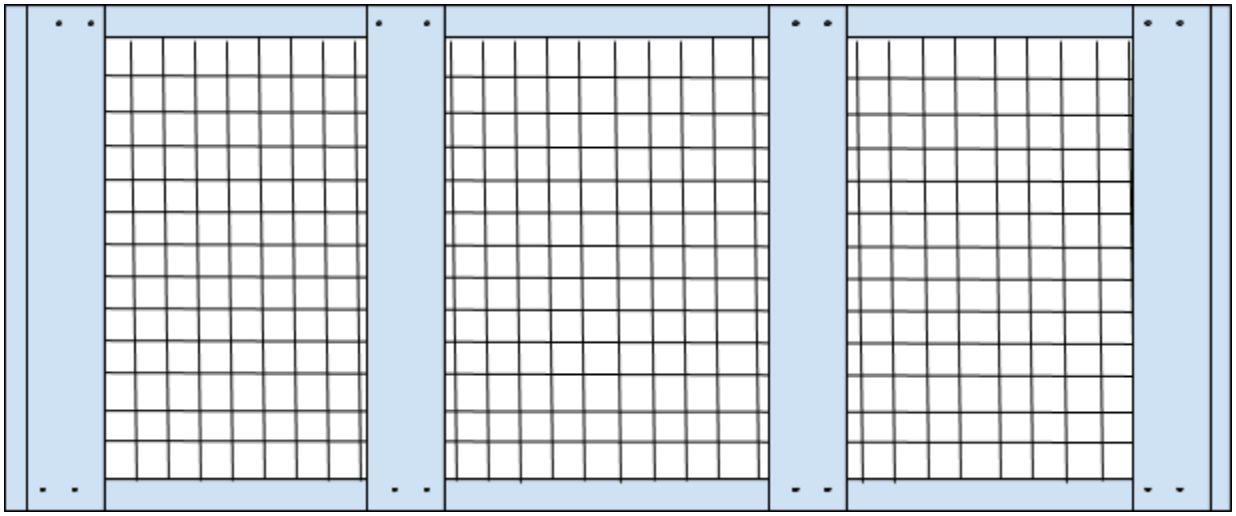
   a. Place 96” boards on inside, and screw through 32” boards to assemble

2. Add hardware cloth



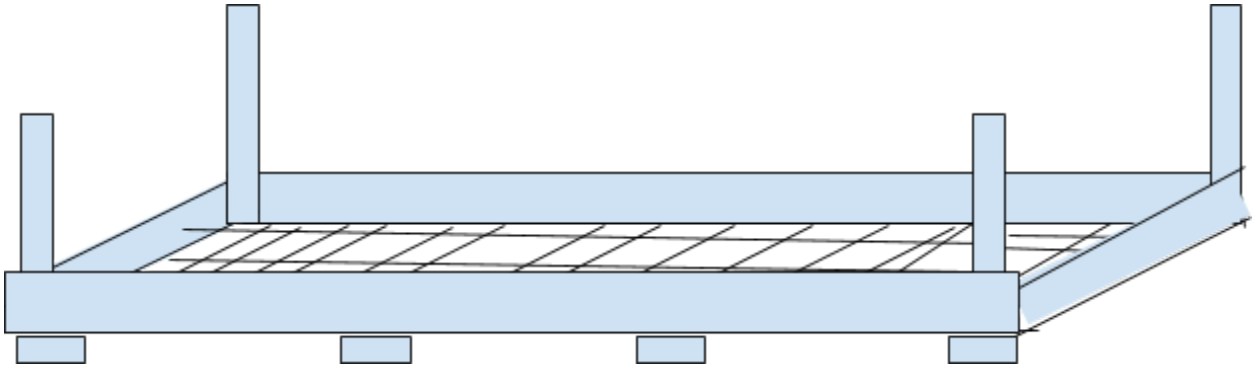
a. Staple hardware cloth to frame
b. Staple every 3 inches or so

3. Add feet (you can omit this step if you are placing bed on permeable surface)



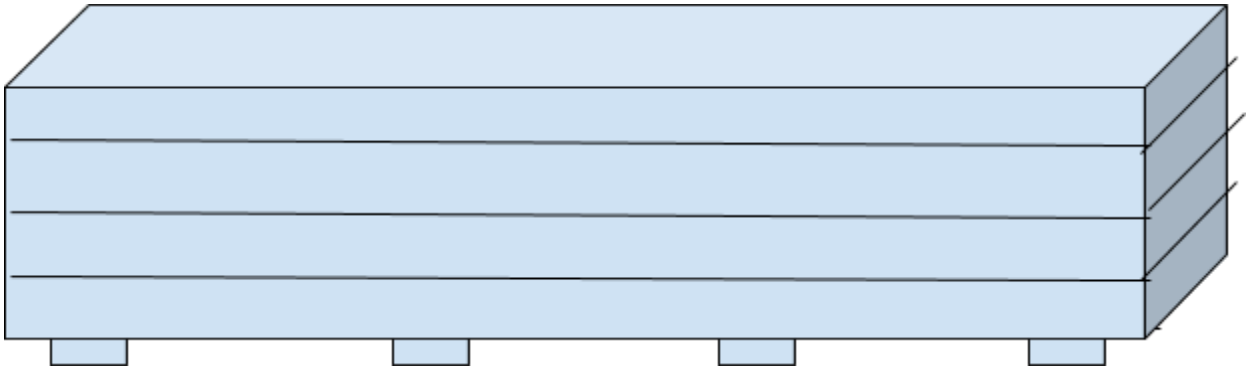
a. Evenly space feet across frame on top of landscape cloth. Drill into 96” boards.The feet closest to the end of the frame should align next to the 32” board, instead of directly beneath it. The outermost feet will serve as a platform for the 4 x 4 posts to rest on.

4. Add posts



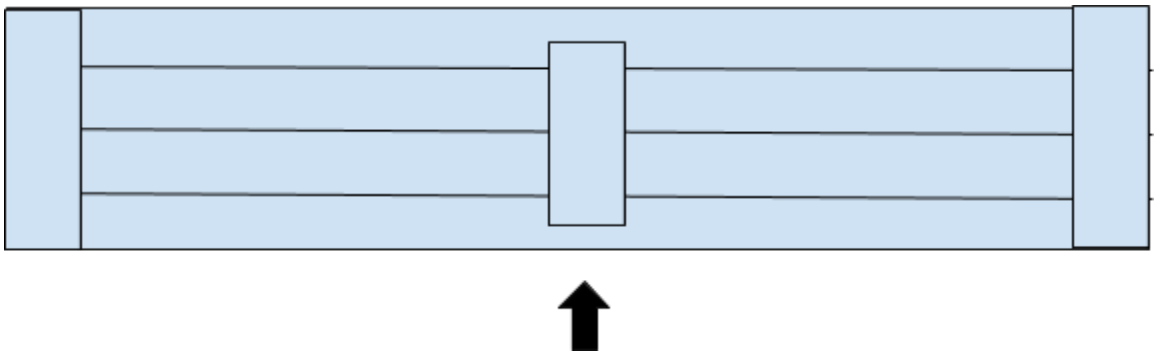
a. Flip frame upside down so that feet are on the ground.
b. Place 4x4 posts inside the frame interior and drill to both 96” and 32” boards

5. Add additional 2 x 6 boards to finish bed



6. Add the scrap 2 x 4 wood for support. Since the beds are long, it is best to reinforce both 96” walls with additional support. Simply center the 2 x 4 scrap wood in the middle of each 96” wall and screw in from the exterior.

View from interior:



7. Staple landscape fabric to the interior to prevent water and soil from seeping through the seams. This is not 100% necessary for functionality, but will improve aesthetics.

Additional tips:

c. Pre-drilling holes for screws is good practice but not always necessary for certain assembly steps.

education OUTSIDE

RESOURCES

BUILDING YOUR OUTDOOR CLASSROOM: THE TOP 10

A Summary Guide

Photo credit: Paige Green

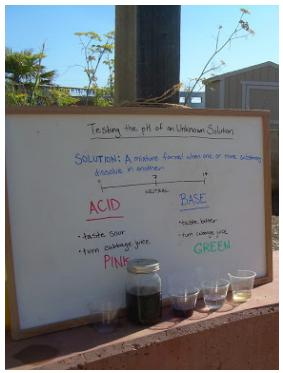
Please see The Top 10: An Extended Picture Guide, linked in the Table of Contents, for further details.

WHAT IS THE "TOP 10"?

The Top 10 is a list of ten infrastructure items that we believe every outdoor classroom should have. This picture guide begins with general pictures of outdoor classrooms across several different school sites. We then work through each item in the Top 10, providing several different examples of each in order to demonstrate the range that exists in outdoor classrooms. Use this picture guide as inspiration when developing your own outdoor classroom. If you'd like to reference an extended version of this document throughout your planning, you can find one in the Table of Contents.

Seating Circle

Whiteboard /Chalkboard



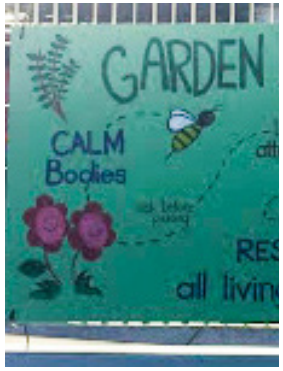
Teaching Table

Storage

Food Garden Area

Exploration Area

Garden Agreements



Stations

Signs

Additional Enhancements

#1: SEATING CIRCLE

A place for students to gather, especially for class openings and closings.

Options *(listed in order of ease to implement and, generally, cost)*		**Considerations**
On The Ground		- Inexpensive - Can paint sit spots on asphalt or use vinyl spot markers (P.E. teachers at school often have these!)
Stumps		- Can be obtained for free from tree removal services - Can use stumps as a tool to teach about tree rings or paint the tops - Should be dug into the ground for stability; can be wobbly on top of asphalt/concrete
Wooden Benches		- Should be built with redwood or another wood that will last outdoors - Use a sealant or paint to increase longevity - Moveable benches can be useful for small group work throughout the garden
Cob Benches		- Can be a good community build project & example of using natural materials - Requires upkeep and can fall apart, especially if unprotected from rain
Concrete/Stone Benches		- Expensive - Generally requires work from a licensed contractor

ADDITIONAL THINGS TO CONSIDER WHEN MAKING A SEATING CIRCLE

How many students are in a typical class?

- Sit spots are helpful for spacing out students on wood or concrete benches. They are also a great classroom management tool. In the photo below, the instructor can group students by bench color (yellow, red, blue, purple), sit spot animal (butterfly, ladybug, dragonfly), or sit spot color (yellow, red) to form groups of different sizes.

How should seats be oriented in order to avoid having students look into the sun?

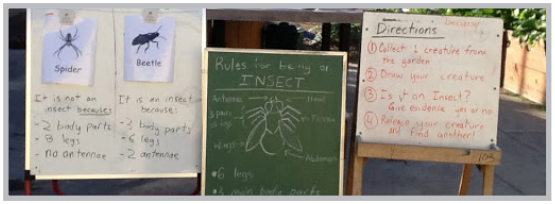
- Students have an easier time focusing if they're not looking into the sun, so it's worthwhile to be intentional about the orientation of your seating circle. Note, however, that if students are facing away from the sun the instructor will be looking into the sun!

How close will students be sitting to the ground?

- Benches should be built at a height appropriate for students (~14-16" for elementary school). Students will likely be tempted to play with wood chips, decomposed granite, leaves, and other natural materials under foot. It's helpful to set seating circle expectations early in the year (i.e. "quiet feet in circle").

#2: WHITEBOARD/CHALKBOARD

Used to write agendas & instructions or to display visuals.

Options *(listed in order of ease to implement and, generally, cost)*		**Considerations**
Whiteboard / Chalkboard Easel		- Affordable and come in a variety of sizes - Can topple easily in the wind - Whiteboards can be easier to write on and clean off, but chalk boards do not create as much glare for students on sunny days
Free-Standing Whiteboard		- Affordable and come in a variety of sizes - Small boards can be useful for writing instructions for small group activities taking place at different locations throughout the garden, or for posting guiding questions for students throughout the garden
Large Whiteboard on Wheels		- Extra space for writing/hanging visuals - Can be expensive - Should be attached to a wall or weighted down, as these boards can fall over in heavy winds and become a safety hazard
Mounted Whiteboard		- Whiteboards/chalkboards can be attached to walls outside, though the method depends on the surface - Easier to use regularly because the board doesn't need to be transported in/out of storage - Boards have a shorter lifespan if not protected from the elements
Protected Whiteboards		- Expensive - Easier to use regularly because the board doesn't need to be transported in/out of storage - Last longer than unprotected outdoor whiteboards

#3: TEACHING TABLE

A multi-purpose surface for lesson supplies & teacher materials

Options *(listed in order of ease to implement and, generally, cost)*		**Considerations**
Folding Table		- Inexpensive - Should be stored inside, protected from the elements
Wood Table		- Can be built or purchased - Can be left outside in a permanent location; use wood sealant to protect from the elements

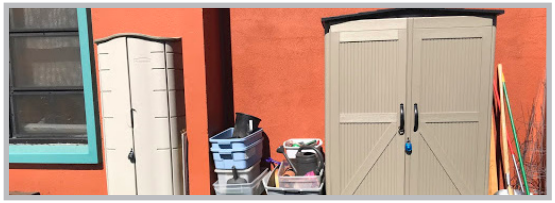
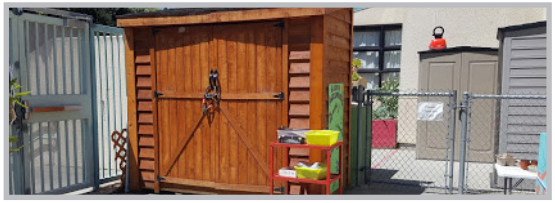
ADDITIONAL THINGS TO CONSIDER WHEN MAKING A TEACHING TABLE

What is the primary use of the table?

Teaching tables can be great for setting up materials that students will access during lessons (i.e. worksheets, pencils, etc.). However, they often double as a space for teacher materials (i.e. chime/attention-getter, equity sticks, lesson plan). It can be helpful to differentiate these spaces. For instance, a bottom shelf can be used for student materials and a top shelf can be limited to teacher access only. Alternatively, if you have the space, you can designate one table as a teaching table and a separate table for student materials.

#4: STORAGE

For garden supples, lesson supplies, and more!

Options *(listed in order of ease to implement and, generally, cost)*		**Considerations**
Plastic Shed		- Affordable & come in a variety of sizes - Usually easy to assemble - Plastic can warp or break over time; shorter lifespan - Can add a lock but generally least secure option
Wood Shed Kit		- Come in a variety of sizes - Assembly varies in terms of difficulty - More aesthetically pleasing than plastic sheds - Can add a lock; more secure than plastic sheds
Tuff Shed		- Expensive - Customizable & very secure - High quality, last a long time - Price includes assembly on site

Who will have access to the materials in the shed?

If you have space and funding, consider purchasing two sheds-- a large one to store teaching materials and larger garden tools that young students shouldn't directly access, and a smaller one for materials that young students can always access. The shed shown below is always open to students, and contains gloves, trowels, mud kitchen supplies, plastic bugs, and more.

Alice Fong Yu Alternative School, SF

#5: FOOD GARDENS

A designated growing area for students to interact with growing food and annual plant life cycles

Options *(listed in order of ease to implement and, generally, cost)*		**Considerations**
In Ground- Without Borders		- Inexpensive - If using native soil, make sure to have a soil test done first - Are likely to get stepped in and will spill over into pathways over time - Can make doing irrigation easier/less expensive
In Ground- With Borders		- Inexpensive - Borders can be created with a variety of found or bought materials
Raised Beds- Re-purposed		- Can be easier/less expensive than building beds - Keeps plants protected from being stepped on and underground pests - More control over soil quality - Need to be aware of the quality of material and any potential contaminants
Raised Beds- Built		- More expensive, but often longer lasting - A great opportunity to build community while constructing - Use wood that will last (redwood or cedar) from a trusted source
Containers		- Great for small spaces, or extending the garden into unlikely places! - Can be easily moved for different spacial or plant needs

#6: EXPLORATION AREA

Exploration areas are green spaces not focused on food production. They are aesthetically enticing places for students to explore and interact with nature!

Options *(listed in order of ease to implement and, generally, cost)*		**Considerations**
"Forest Area"		- Even small spaces can feel like a forest to a child! Consider utilizing plants of various heights, habits, or seasonal changes to make it enticing for many ages throughout the year - Training or pruning your plants to create "hiding spots" will draw students in and foster a connection to the space through fun and security
Pathways		- Using mulch or another distinguishable material for your pathways will help direct students towards the appropriate exploration areas and away from places they shouldn't disturb - Adding stepping stones, arrows, or tree stumps adds an extra element of fun and directs student exploration. They can also be moved regularly to change up the flow of the space
Interactive Elements		- For small spaces with limited space for planting perennials, think about ways you can utilize multiple dimensions through interactive activities built into your design

#7: GARDEN AGREEMENTS

These norms are established between students and instructor at the beginning of the year, and help ensure positive classroom culture

Options *(listed in order of ease to implement and, generally, cost)*		**Considerations**
Laminated		- Cheap and easy, you can even use sheet protectors if a laminator is not available - Best for short term signage that can be taken down and stored when not in use to avoid weather damage
Painted		- Long lasting and relatively inexpensive, see slide 70 for tips on making your own - Can mirror school wide agreements or be unique to the garden, but should be straightforward and easy to remember or recite
Multilingual		- Helps foster an inclusive classroom if all students are able to read and understand the outdoor classroom agreements
Unique!		- Agreements can be posted throughout the classroom or in one central location for everyone to refer to - Involve students in the creation or painting of garden agreements to increase investment in following them

#8: GARDEN STATIONS

Garden Stations are activities that students learn early in the year, and are able to engage in autonomously with practice. They can be "open" or "closed" during recess or other free time, as decided by the instructor. They can also be used for "early finisher" activities during class time. For an explanation of each station, please see the full picture guide.

1. Waterering Stations*

2. Dig Zone*

3. Worm Bin*

4. Bug Hunt

5. Seed Sorting

6. Habitat Building/ Fairy Houses

7. Mud Kitchen

8. Color Hunt

9. Litter Patrol/ Sweeping

Glen Park Elementary, SF

***We recommend starting with the first three stations and adding more as the outdoor classroom becomes more established.**

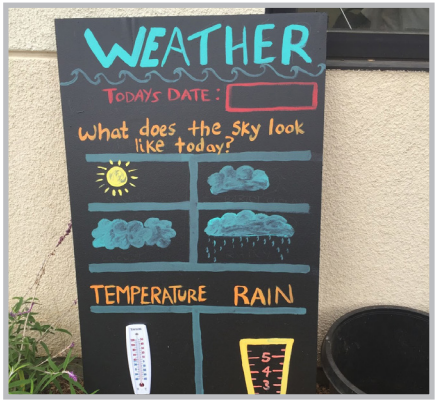
#9: SIGNS

Make the outdoor classroom more inviting, interactive, and informative.

Welcome to the Outdoor Classroom

Height Charts

Weather



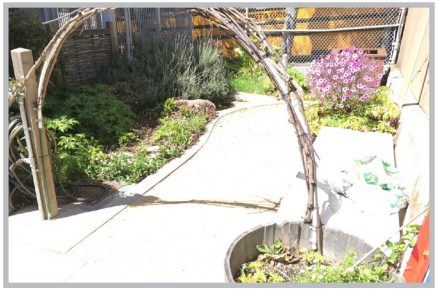
Diagrams

Direction Posts

Plant ID Signs

#10: ADDITIONAL ENHANCEMENTS

Anything else to make your space unique and fit your students' needs.

Peace Corner / Peace Path		Shade Structure	
Tunnel		Murals	
Sink		Gratitude Walls	
Compost Bin		Observation Stations