

LOS ANGELES UNIFIED SCHOOL DISTRICT

SCHOOL GARDEN GUIDEBOOK

A guidebook for Site Administrators on how to create a garden that works best for the school community.



Carthay Environmental Magnet School's garden with native plants, a rain garden sitting area, an edible garden, and rainwater harvesting from the roof.

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Published: June 2022



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Eagle Rock Elementary School's outdoor learning environment with log benches and decomposed granite. The school was awarded a grant through a partner organization to receive solar reflective coating on the playground's asphalt, trees, and a new grass playfield.

INTRODUCTION

Welcome to the Los Angeles Unified School District (LAUSD) School Gardens Guidebook. LAUSD promotes the development of sustainable school greening projects that benefit the health and well-being of the school community, as well as providing opportunities for students to engage and learn outdoors. Whether you are interested in expanding an existing garden or developing a new one, this guidebook will serve as a resource to help inspire a garden design that works best for your school community.

WHAT IS GREENING?

LAUSD considers “greening” to be a broad range of projects that may include permeable surfaces, shade elements, natural ground materials, and sustainable features to create spaces for passive and active play. The design and scale of projects will vary across early education centers, elementary, middle, and high schools.

WHY GREEN OUR SCHOOLS?

Greening efforts can help:

- Increase sustainability and protect natural resources
- Enhance the school environment to promote outdoor learning environments
- Create opportunities for instructional tie-ins with the common-core curriculum
- Inspire our students to become the next generation of environmental stewards
- Promote healthy lifestyles and build communities



A BRIEF GREENING HISTORY AT LAUSD

In 1997 an initiative known as the Greening Project was developed to increase green spaces instead of repaving asphalt on school grounds. Since then, LAUSD’s Board of Education and Citizens’ Bond Oversight Committee have passed several resolutions and initiatives that support developing green spaces on school campuses to promote health, well-being, and education. These initiatives include Community School Parks, the District’s Sustainable Environment Enhancing Developments for Schools (SEEDS) bond-funded program, and a 30% greening goal for new school construction projects.

Currently there are more than 450 gardens throughout LAUSD school campuses. Some school sites have developed greening projects through state grants, such as Prop A and Prop 84, while most greening projects have been developed through partnerships with local nonprofit and community groups.

HOW TO START A SCHOOL GARDEN

LAUSD recognizes a School Garden as outdoor space integrated with nature that inspires learning. If your school has a space that you would like to turn into a garden, follow these initial steps to start a school garden:



1. **Engage Stakeholders** – First, gain the support of the school administration and your school’s Complex Project Manager (CPM). The CPM will help guide the community-supported initiative through the appropriate channels. Then, engage community members like a PTA or local businesses, local district members, or a non-profit community partner organization. A community partner organization may offer support in funding, design of the garden, curriculum, ongoing maintenance, and may help to initiate community support. The key to building this commitment is engaging the school and community stakeholders in the planning process, gathering input from teachers, students, families, and the local community to integrate the garden design with the school’s mission, values, and curriculum.
2. **Secure Funding** – Funding can be secured through several options. You can apply to the LAUSD bond funded SEEDS Program (see page 13). Or, you can self fund a project through a Community Initiated Project (see page 14) using Parent/Teacher group funds, or work with a partner organization to help identify local and national grants that your school may be eligible for. Local businesses may also be a good partner that can provide landscaping materials and monetary donations.
3. **Choose a Garden Type** – The garden should meet the needs of the individual school community and the unique layout of each campus. The principal and the CPM will be able to help identify a space for the garden that doesn’t interfere with other planned projects at the school. Gardens can serve various purposes, so work with the stakeholders to decide which garden type would work best for your students. Keep in mind that a garden needs to be accessible to all students per the Americans with Disabilities Act.
4. **Commit to Ongoing Maintenance** – LAUSD does not provide ongoing maintenance for the garden, so it is up to the school community – students, teachers, community partners, and parents to help the garden thrive. This encourages students to become responsible stewards of their outdoor learning environment, while cultivating community relationships. The ability to maintain a garden can help to determine what kind of garden would work best for your school.



Glenfeliz ES SEEDS Garden has an outdoor learning environment with natural logs for sitting, and a thriving edible and flower garden.

TYPES OF SCHOOL GARDENS

This guide focuses on the following five garden types. Keep reading to learn more about their purpose, features, and maintenance requirements.



JORDAN HS

HABITAT GARDEN



ESPERANZA ES

READING GARDEN



CANTERBURY ES

MULTI-USE GARDEN



SHERMAN OAKS ES

EDIBLE GARDEN



SAN FERNANDO HS

AGRICULTURAL AREA

HABITAT GARDEN

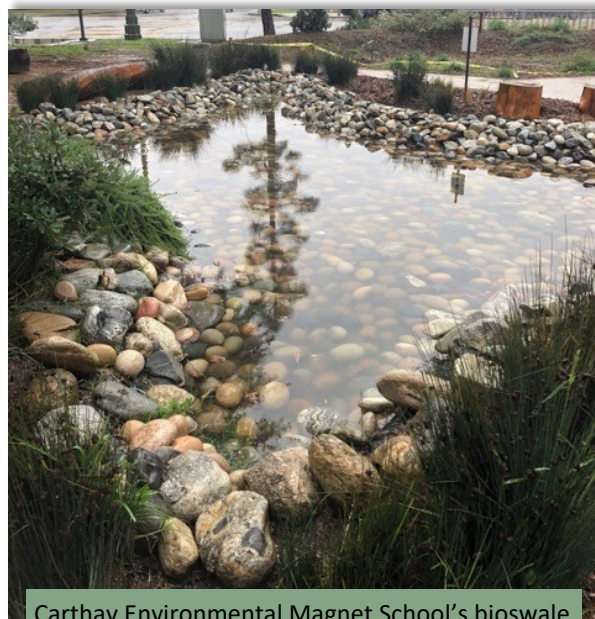
Habitat Gardens are a "natural laboratory" where students can learn about the physical elements and ecological phenomena of a native habitat. Instructional opportunities are plentiful as students can explore topics such as the diversity of plants, animal species, soil types, the water cycle, stormwater retention, wildfire resilience as well as the role that humans play protecting the natural environment.

Habitat gardens are generally low maintenance since native plants thrive in their natural environments with minimal care. New plants will require water until they are established which is typically a year or two after planting. After establishment, water use is very minimal and often not needed at all depending on the plant species. Some plants might even die from summer watering because they have evolved to not receive water in our dry Mediterranean climate!

Keep in mind that most native California plants have a dormancy period where they may look dead, but they are actually alive. Do not remove them from the ground during this period as they will bounce back during their growing season. Also, habitat gardens that include bioswales or other water retention features may require additional maintenance to ensure that the water infiltration capacity remains effective. Less than optimal infiltration capabilities can lead to ponding, possible mosquito infestations, and overwatering of surrounding plant species.

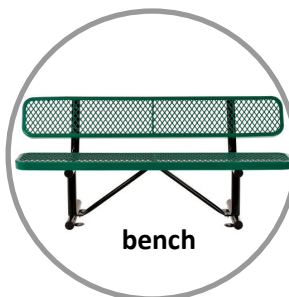
EXAMPLES OF HABITAT GARDENS INCLUDE:

- Butterfly Gardens
- Native Habitats
- Meadows
- Forests
- Bioswales
- Other variations—based on specific ecoregions



Carthay Environmental Magnet School's bioswale captures rainwater and prevents flooding in an area that was previously grass.

HABITAT GARDEN FEATURES



HABITAT GARDEN MAINTENANCE

- Prune as needed to encourage balance growth and attractiveness.
- Weed invasive species a minimum of every 3 months, and as needed seasonally.
- Water per the recommended amount until plants are established, then reduce or eliminate watering, depending on plant type.

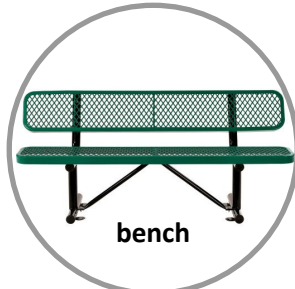
READING GARDEN

A Reading Garden offers a reflection space where an individual student, or a small group, can engage in reading, writing, or other quiet activities. Flat top logs and stumps can be used to arrange seating based on the need at that time. Reading Gardens tend to be easier to incorporate into a school yard, as they can be simple in design, small, and lower in cost. They are a great choice for a school that may not be able to commit to a time-consuming ongoing maintenance plan that may be required of other garden types.

Hubbard ES Reading Garden (right) was created by the school community to provide a peaceful space where students could sit and read among native drought tolerant shrubs. The tree in the center will mature in a few years to provide additional shade.



READING GARDEN FEATURES



READING GARDEN MAINTENANCE

- Prune as needed to encourage even growth and attractiveness.
- Weed invasive species a minimum of every 3 months, and as needed seasonally.
- Water per the recommended amount until plants are established, then reduce or eliminate watering, depending on the plant type.
- Dust or wash off sitting spaces.

EDIBLE GARDEN

An edible garden provides a space where students can grow food for consumption and learn about agriculture, nutrition, and the culinary arts. Edible gardens can be integrated with school curricula in science, math, literature, and social studies to help reinforce classroom learning with hands-on learning. When paired with nutrition education, these gardens may have positive impacts on increasing children’s consumption of fruits and vegetables. These gardens can be raised garden beds of various sizes or a larger garden space with in-ground seasonal crops.

Keep in mind edible gardens can be the most difficult and time-consuming type of garden to maintain. They require aligning planting and harvest schedules with the school’s curriculum and academic calendar. Additionally, they require more funds to replant crops from year to year, and they need volunteers to maintain and water the garden during school breaks if an irrigation system is not installed. LAUSD does not install or maintain drip irrigation systems, however, schools are allowed to install and maintain their own drip systems.



EDIBLE GARDEN FEATURES



TYPES OF EDIBLE GARDENS INCLUDE:

- Raised bed gardens
- In-ground/raised bed combination gardens
- Fruit tree orchards
- Hydroponic gardens
- Aquaponic gardens
- Aeroponic towers (in pilot phase, pictured left)

EDIBLE GARDEN



EDIBLE GARDEN MAINTENANCE

- Grow seedlings or purchase transplants.
- Water regularly, including during the summer and seasonal school breaks.
- Weed weekly to prevent the weeds from taking nutrients from the vegetables.
- Fertilize and compost regularly depending on the plants' needs.
- Perform regular maintenance of the irrigation systems to ensure proper flow.
- Dispose of, or compost, excess green waste.



MULTI-USE GARDEN

Multi-use gardens can include combinations of the different types of gardens covered in this guide. They tend to require more space for development than the other garden types, however, they can be designed to be low maintenance by incorporating native habitat landscaping. By also including shade trees, schools will ensure the use of the garden throughout the day and school-year. Multi-use gardens are a great way to create an outdoor learning experience while implementing various types of curricula to meet the needs of your students.

Keep in mind that successful multi-use gardens should support a variety of activities and teaching styles, therefore, flexible seating arrangements should be considered to enhance versatility.

EXAMPLES OF MULTI-USE GARDENS INCLUDE:

- Garden setting with enough seating to serve as an outdoor learning environment
- Outdoor amphitheater set within a garden setting
- Gardens that include both habitat and edible garden spaces
- Gardens that provide students with an opportunity to play (such as logs or boulders) in an area that doubles as an outdoor learning space.



MALABAR ES

MULTI-USE GARDEN FEATURES



path



table



raised bed



storage



stools



Victory ES multi-use garden with an amphitheater, rain garden, and habitat garden.

MULTI-USE GARDEN MAINTENANCE

- Prune as needed to encourage even plant growth and attractiveness.
- Weed invasive species a minimum of every 3 months, and as needed seasonally.
- Water per the recommended amount until plants are established, then reduce or eliminate watering, depending on the plant type.
- Dust or wash off sitting spaces.
- If including an edible garden, see edible garden maintenance.

AGRICULTURAL AREA

An agricultural area is a large-scale edible garden that can support various curricula, such as horticulture, nutrition, animal husbandry, culinary arts, and more. Agricultural areas were incorporated into the layout of many LAUSD middle and high schools during the initial construction of the school campus. Some of these areas have established fully functioning farms with orchards and housing for farm animals, such as chickens and goats. In some cases, schools have developed outdoor learning environments within their agricultural area or have planted native gardens or flower gardens that correlate with the school's specific curriculum and classes. Schools have also incorporated culinary programs or vegetable prep areas to consume fresh food on site.

Portions of agricultural areas can also be used as a community garden which gives community members access to use the school's garden plots. In order to establish a community garden, a school needs to follow applicable LAUSD policies and procedures which requires a Request for Proposals (RFP) process to select an organization that will oversee use and access of the community garden, as well as cover applicable insurance. Community gardens also require fencing to separate the community garden area from the school's designated area while school is in session.

Keep in mind agricultural areas require year-round maintenance and planning.



Markham MS (top) greenhouse can be used by students all year long to grow plants from seed. Playa del Rey ES (bottom) chicken coop requires daily maintenance to ensure that the chickens are fed, have water, and are safe at night in their coop from predatory animals.

AGRICULTURAL AREA



North Hollywood High School (above) has an active farm as well as classes related to horticulture and flora culture. Flowers and herbs help to bring beneficial insects to the garden to pollinate and deter pests. Agricultural areas can include inground planting areas and raised planter beds (allowing for ADA access to crops).

San Fernando High School (below) provides students with classes that focus on urban farming, where the students are responsible for taking care of the nursery which provides seedlings for other school sites throughout LAUSD.

AGRICULTURE AREA MAINTENANCE

- Grow seedlings or purchase transplants.
- Water regularly, including during the summer and seasonal school breaks.
- Weed weekly to prevent the weeds from taking nutrients from the vegetables.
- Fertilize and compost regularly depending on the plants' needs.
- Perform regular maintenance of the irrigation systems to ensure proper flow.
- Dispose of, or compost, excess green waste.



FUNDING OPPORTUNITIES

Funding is an essential part of creating your school’s dream garden. The District provides one funding opportunity for K-12 schools. The second option is to self-fund the project or work with a Partner Organization for grant funding. Read about the two funding options below to find a solution that will best work for your school community.



SEEDS PROGRAM

DISTRICT FUNDED

The Sustainable Environment Enhancement Developments for Schools (SEEDS) program was established in 2013 as part of a continuing commitment to support and expand the number of greening projects at Los Angeles Unified School District schools. The SEEDS Program provides funding to enhance and/or create outdoor healthy and sustainable learning environments that support LAUSD’s curriculum.

Schools that apply to the SEEDS Program are eligible to receive up to a maximum of \$100,000 in landscape design, infrastructure improvements, and installation of landscaping materials to make their school’s space “garden ready”. The school can choose a garden type that would work best for their school community, and a LAUSD Landscape Architect will help design it. Schools are encouraged to work with a partner organization to assist in providing materials and resources that are not covered by the SEEDS Program (e.g.: small plants and shrubs, curriculum, and the ongoing maintenance of the new space).

The goal is to equitably disperse SEEDS funding in each Local District. To learn more about the seeds program and how to apply online, visit learninggreen.laschools.org/seeds

EXAMPLES OF SEEDS GARDENS INCLUDE:

- Gardens that encourage sustainable learning
- Multi-use Garden setting with enough seating to serve as an outdoor learning environment
- Gardens that provide students with an opportunity to play (such as logs or boulders) in an area that doubles as an outdoor learning space.



FUNDING OPPORTUNITIES

COMMUNITY-INITIATED PROJECT

SELF OR GRANT FUNDED

A community-initiated project is for a school community seeking to add a garden or improve an existing green space with funds raised by the school or volunteers. The following steps must be taken in order to initiate a community project:

1. School stakeholders (with community/volunteers) create the greening concept.
2. Secure funding from one or more of the following sources:
 - Existing school funds
 - Seeking local, state, or nationally funded grants
 - Corporate sponsors
 - PTA/PTO
 - Fundraising or Crowdfunding
3. Engage the school's Complex Project Manager (CPM) to initiate [Bulletin 5761](#).
4. CPM will work with Facilities staff to review proposed plan.
5. Facilities staff will provide guidance throughout the process.

KEY CONSIDERATIONS INCLUDE:

- Minor alterations (if applicable) must be completed by LAUSD or an LAUSD approved contractor.
- A License Agreement may be required for outside entity to undertake work.
- For more info: <http://learninggreen.laschools.org/getting-started.html>



Walgrove Avenue Elementary School playground greening project was made possible by a group of educators, parents, and community volunteers who worked with the school to create a 25,000 square foot schoolyard habitat called the Walgrove Wildlands.

OTHER GREENING PROGRAMS/PROJECTS

NATURE EXPLORE® PROGRAM

Early Education Center (EEC) Nature Explore® Outdoor Classrooms are designed for our youngest learners to acquire understanding through nurturing, nature-based learning environments. Outdoor classrooms optimize social, educational and physical development by offering learning stations such as motor activities, messy materials, music and movement, planting garden and more.

LAUSD is developing Nature Explore® gardens at identified EECs. The proposed project sites were identified by the Early Childhood Education Division in consultation with Local District and school site administrators. These sites were selected based upon multiple factors, including: proximity and access to existing community green space, income level, center enrollment, community interest, and demographics.



OTHER GREENING PROGRAMS/PROJECTS



NATURE EXPLORE® OUTDOOR LEARNING FEATURES INCLUDE:

- Large-motor activities learning station
- Climbing/crawling learning station
- Messy materials learning station
- Building block learning station
- Nature art learning station
- Music and movement learning station
- Planting garden/pathway through planting learning station
- Gathering learning station
- Materials storage learning station



OTHER GREENING PROGRAMS/PROJECTS

LOW IMPACT DEVELOPMENT (LID) PROJECTS

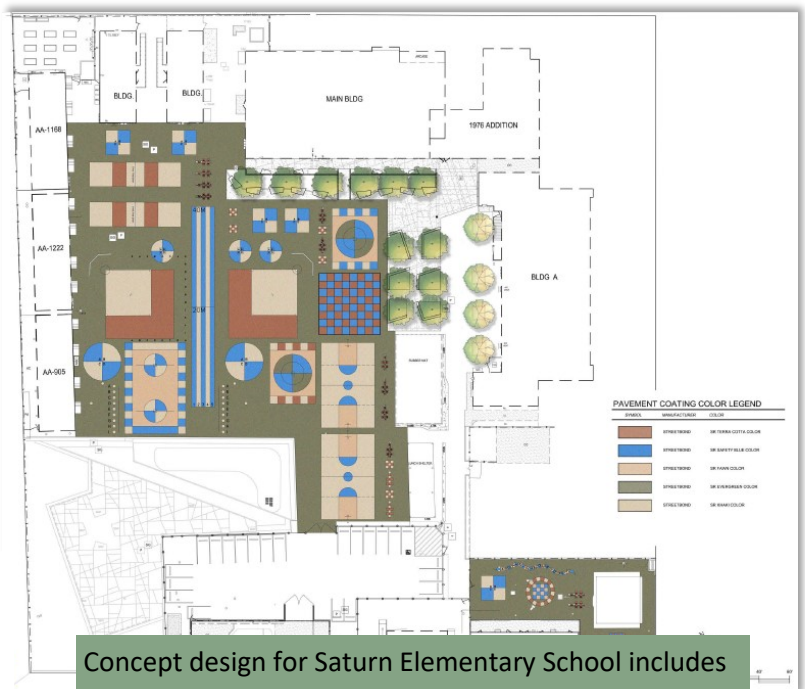
With the support of the California State Water Resources Control Board, the Drought Response Outreach Program for Schools (DROPS) provided school campuses with the opportunity to implement and demonstrate the multi-benefits of low-impact development (LID) including reducing stormwater pollution, water conservation, water supply augmentation, energy conservation, and increased awareness of water resources.



Northridge Middle School (left) DROPS project included bioswales, climate-wise landscaping, and nearly 50,000 square feet of permeable pavers throughout campus. 2nd Street Elementary (right) LID project included new solar reflective paint and native pollinator gardens and shade trees.

PAVING AND GREENING PROJECTS

Paving and Greening Projects use bond funds to update the playgrounds at District schools with the most critical repair needs. These projects remove the existing deteriorated asphalt and repave the playground with new asphalt and solar reflective paint. The cool coating paint helps to reduce the ambient temperature of the playground while providing engaging play spaces. The project also ensures that the school is meeting the District's 30% Greening Standard by adding shade trees, outdoor learning environments, and installing privacy fencing around the perimeter of the campus. Paving and Greening Projects are a necessary way to update the playgrounds with the most needs.



Concept design for Saturn Elementary School includes new Cool Coat paint and shade trees.

BEST PRACTICES

1 ENGAGE STAKEHOLDERS

- Engage school stakeholders, including the school's Complex Project Manager (CPM), to develop a plan and identify a site for the future garden. Who will use the garden and what are the intentions?
- Involve the students! Have them present their ideas and maintenance plans to administration.
- Identify partner organizations that offer planning, curriculum, and ongoing maintenance support.

2 SECURE FUNDING

- Apply for local, state, or national grants.
- Host a Crowdfunding, like GoFundMe, or fundraising event.
- Reach out to local nurseries for donations, discounts, or volunteer support.
- Keep in mind that developing and building a garden could take a few years depending on the scope and size of the project.

3 CHOOSE A GARDEN TYPE

- Increase accessibility for all students by using concrete walkways and placing any nature-based educational tools within arm's reach of the walkways.
- For outdoor learning environments, choose a site with existing shade, like an established tree. If adding a tree, keep in mind that it will take several years before it can provide adequate shade.
- Choose a space that receives at least 6 hours of sunlight a day in order to encourage healthy growth of the plants.
- Choose a habitat, edible, or multi-use garden to more easily incorporate various curriculum opportunities.

4 ONGOING MAINTENANCE

- For low maintenance and low water use, choose a habitat garden with native drought tolerant plants.
- Create a Garden Club and coordinate community garden planting and maintenance days throughout the year.
- Select a site with a known nearby water source. This reduces the amount of funding required to extend the water line, and the amount of hand watering needed.



Trinity ES hosts a school community planting day for their new SEEDS Garden.

RESOURCES

LAUSD RESOURCES:

- [SEEDS Website](#)
- [Local Districts Centers](#)
- [Integrated Pest Management](#)
- [Complex Project Manager \(CPM\) Directory](#)
- [LAUSD Approved Plant List](#)
- [School Design Guide](#)

LOCAL AND NATIONAL RESOURCES:

- [California Environmental Protection Agency - Education and the Environment Initiative \(EEI\)](#)
- [Gardens for Learning: Creating and Sustaining Your School Garden](#)
- [Kids Gardening](#)
- [Out Teach](#)
- [School Garden Weekly](#)
- [The Edible Schoolyard](#)
- [CalScape Garden Planner](#)
- [Green Schoolyards America](#)

PARTNERS

