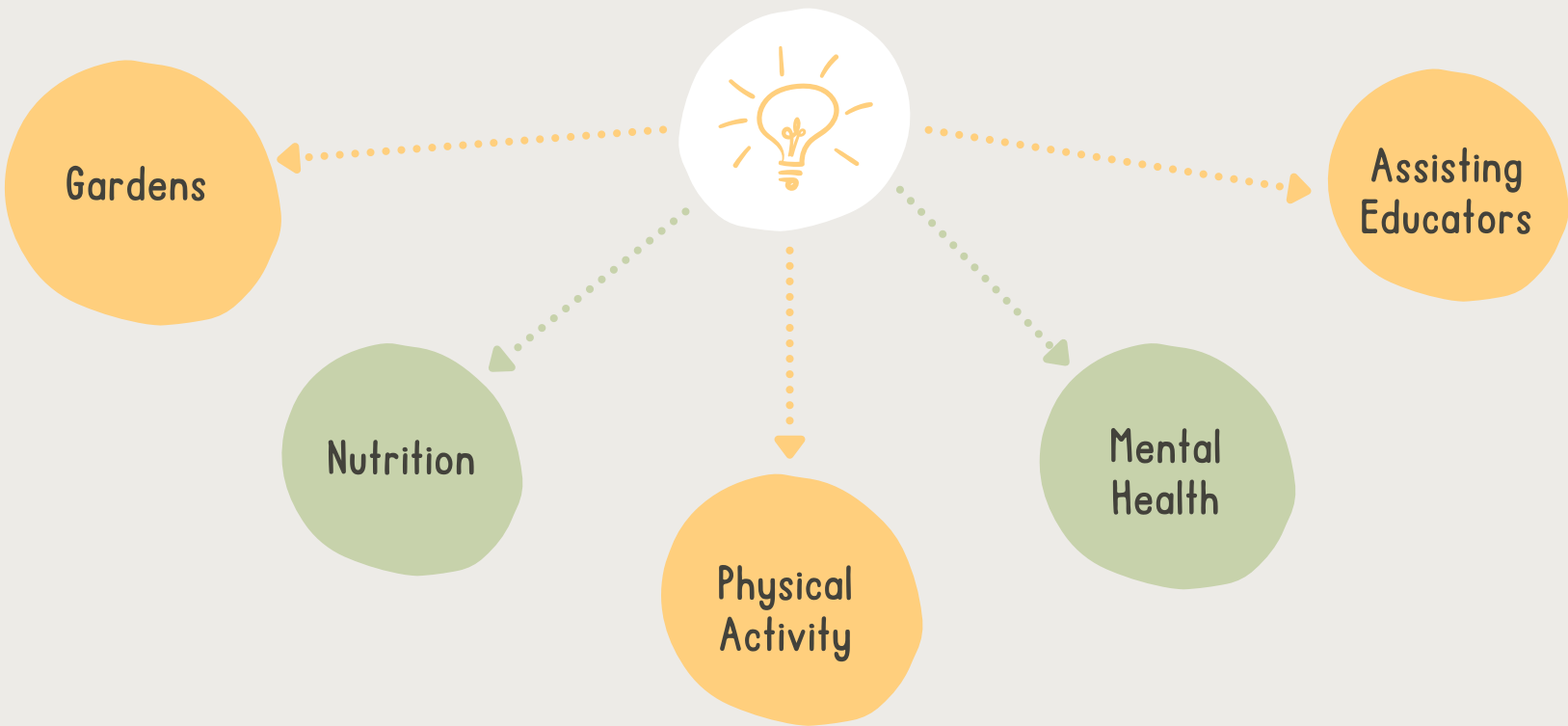


# FLOURISHING WELLNESS THROUGH FARM TO SCHOOL



## Edible Gardens on Campus

- Garden to Cafeteria (GTC) is a program in which students grow, harvest fruits and vegetables from a school garden to the cafeteria at the same school.
- GTC protocols cover food safety and the important steps needed to reduce the risk of contamination.
  - Protocol component include: Contact information for key Garden to Cafeteria staff at school site, program introduction and basic information, food safety checklist, approved produce list, signatures page, example log sheet.
  - School and retail food facilities regulated under the California Retail Food Code are required to obtain their food from an "approved source" as defined in Sections 113725 and 114021 of the California Health and Safety Code.
- The USDA provides policies to allow a School Food Authority (SFA) to use funds to purchase school garden produce.
  - SFA's may use funds to pay for products from school gardens in the following ways: Investment - purchase of seeds, seedlings, and amendments for school garden projects . Intergovernmental Agreement - SFA enters into an agreement with the school to provide school garden produce for a fair market price. Informal procurement - SFA will request and verify a competitive quote from the garden lead, and compare at least 3 other vendors. Micropurchase - SFA can make a purchase from the garden that is under the \$50,000 threshold, without receiving multiple bids.



Vista Unified



Poway Unified



Oceanside Unified

## Educational Gardens on Campus - Project Based Learning through STEAM



- **Science:** Elementary students can be introduced to the plant life cycle, and how water, soil, and sun helps plants to grow. Older students can study plants, insects, nutrition of foods, effects of weather, etc. Younger students can feel the textures of different leaves, help water plants, watch and understand life cycles of plants, insects, and more, and see how the seasons affect the environment.



- **Technology:** Older students can learn about weather and soil tools used in gardens, also large machines and technology that is used in larger gardens and in farming. Younger students can be introduced to garden tools as conversations start for how technology can be utilized while growing food.



- **Engineering:** Designing, building, and planting a garden is a great example of engineering! Projects like deciding where the garden would be best located, fencing, amount of sunlight, and water drainage and irrigation are great learning opportunities.



- **Art:** Students can draw or paint pictures of flowers, insects, garden signs and their surroundings. Students can use the garden around them for artistic inspiration whether it is poetry, literature, painting, drawing, music, or...Students can also make their own flower bouquets,



- **Mathematics:** Counting, sizing, shape, proportion, fractions, multiplication are all topics that can be integrated into the garden. Younger students can count tomatoes are on a vine, and older students can figure out how many tomatoes they need to sell at what price in order to make a profit.

## Garden Access for All

- School gardens should provide all students with the opportunity to participate in garden activities. Strategies of garden and bed design, tools, practices, and preparation can help ensure that this space is an inclusive setting for all.

- Garden Design: One of the most important components to an all accessible school garden is the flow. When designing the flow, consider the layout of garden pathways and its material make up. A wide garden pathway can serve similarly as a school hallway. This allows students to pass comfortably and with ease.

- See following page for options for pathway materials.

- Tools: A variety of different garden tools will help all gardeners feel welcome. Tools should be stored at a height comfortable for young students. Consider purchasing child-size garden gloves and tools with rubber or longer handles.

- Bed Styles

- A variety of garden bed types can offer all students more opportunities to plant, care for, and harvest in the garden.
- Raised beds, vertical and container gardens offers more options for all gardeners.
- See following page for raised bed and table designs.

- Garden Practices

- Offering a variety of different garden activities for students ensures all students feel welcomed in a the garden space.



Chula Vista High School



Julian Elementary

- **Ramps** with appropriate inclines should replace steps

- Slope must not exceed 5% or 1ft of rise for 20 feet of length
- Cross slope must not exceed 2% or 1ft of rise for 50 feet of length

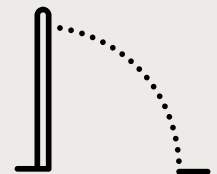
- **Paths** should be designed straight with ample width for maneuvering in a wheelchair or walker

- 3ft for one way traffic, 4ft for turning wheelchairs at 90 degree angles, 5ft for turning wheelchairs 180 degrees, 6ft for two way wheelchair maneuverability.
- Surface materials for accessible pathways include concrete, concrete pavers, crushed pea gravel or brick/wood chips.
  - Wood chips are a cost-effective choice, but require weekly raking to ensure maneuverability by wheelchair users



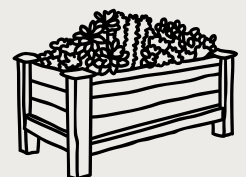
- **Doorways** to gardens should be at least 18 inches of maneuvering clearance beyond the latch side of the door and a depth of at least 60 inches to allow for the back up and opening of the door

- When the door is open, there should be a clearing of at least 32 inches wide.
- Door handles that don't require gripping and turning, and at a reachable height (not higher than 4')



- **Raised beds and tables** should ideally be built specifically for your participants. ADA requires that tables meet the following criteria:

- Table height: 28" minimum - 34" maximum
- Knee clearance: 27" minimum from floor to bottom of table surface
- Inward knee clearance under the table of 19" minimum
- Raised garden bed with front on access, soil depth will not be more than 6"



## Beyond Growing Food



San Diego Unified's  
Garden Gathering

- Sensory gardens invite everyone to explore, touch, pick, smell, listen, and pay close attention to and components of the garden and nature.
- Student engagement with their senses can create a stronger and more memorable experience with their surroundings!
- Sensory and aromatherapy additions to the garden can support relaxation and grounding.
  - Planting fragrant herbs can assist students who are sight impaired orient themselves in the garden space.
  - Edible plants, mirrors, sandpits, play sculptures, engraved seating, small water features, and wind chimes can be great sensory additions to the space.



Kimbrough Elementary

- **Sight:** Add plants with different bark, stem, leaf, flower, and fruit colors and shapes
- **Touch:** Plants with different textures, like cool moss, baby soft lamb's ear, herbs, and more
- **Taste:** Fruits, vegetables, herbs, and edible flowers and leaves
- **Smell:** Scented and fragrant shrubs and flowers like jasmine, clematis, and lavender
- **Sound:** Plants that make noise when wind passes through them, or that attract wildlife like hummingbirds, bees, and crickets
- **Sun and shade** positioning throughout the day is important to consider before establishing your garden space to make it conducive to grow and comfortable to be in for students
- Consider growing **native plants** since they're used to the environment, require less maintenance, are less susceptible to diseases, and attract native pollinators and animals
- **Shady and cool** outdoor spaces in the garden can help students center themselves after recess
- Time in garden spaces can be utilized as a place to host **class celebrations** or as a reward for classwork or behavioral performance

## Joint Use School-Community Gardens

- A garden shared by a community and school, typically on school district property, with some plots designated for school use and others for community use.
- **Initial Steps to Get Started**
  - Get Administration Permission - Determine school district policies and receive admin approval
  - Engage Your Community - Brainstorm ideas while engaging your community in the process
  - Organize Your Group - Develop short term and long term goals for your garden
- **Volunteers:** Recruiting, Managing, Tasking, Training and Recognition
  - **Recruiting:** Parents, grandparents, community members, local scouting groups, high schools, service groups, local garden clubs, farm bureau and farmers markets, nurseries, garden centers, senior centers, master gardeners, older/former students, advocates, school faculty, and more
  - **Managing:** Clearly defining the roles of those who volunteer. Identify and recruit people who have the interest and enthusiasm to move the school garden forward. Select and place volunteers in roles that will match their skills and availability with the program's needs. Orient volunteers to the overall goals of the project. Training volunteers in specific skills, knowledge, and goals for the project. Recognize and appreciate their contributions. Evaluate performance and provide useful feedback
  - **Tasks:** Organizing a parent/student workday. Helping build raised beds. Installing irrigation systems. Laying brick, blocks, or stepping stones. Helping build a storage shed. Designing a garden bulletin board or newsletter. Planning a harvest festival. Harvesting and utilizing produce
  - **Training:** Orientation to the school and garden as well as basic information such as where to park, sign-in, restrooms, storage, etc.
  - **Recognition:** Having award ceremonies in the garden with students present. Including articles in the school and local newspaper. Holding a lunch or dinner in their honor. Writing thank you notes for principals, parents, PTA, and students. Sharing pictures of children and volunteers involved in the garden project.



Encinitas Farm Lab



Southwest High School

## Nutrition

- There are many opportunities to incorporate nutritional lessons and activities into the school day. One of the most popular methods is hosting a taste test.
- Taste tests are also beneficial to inform Child Nutrition Service (CNS) departments about the student's preferences in current and potentially new menu items.
- Local or freshly harvested produce from the school garden are ideal ingredients for a **taste test**.
  - Discuss the origin of the food, and its nutritional benefits.
  - Time and Place of Tasting
    - Taste tests can complement nutrition lessons or use it as a celebration of the culmination of a unit
    - Place sampling cups on the cafeteria line or taste testing table so students can grab a sample as they get up or after finishing lunch
    - Taste tests can be held at Back-to-School Events and Parent Teacher Nights as a way to inform parents about nutrition education efforts
  - Create a Rating System
    - "I Love It", "I Like It", or "I Tried It"
    - Scale "1-5" or "1-10"
    - Stickers can be great tools for younger students to mark their scores
- Best Practices for Nutrition Education:
  - Make sure that the topic is age-appropriate
  - Nutrition education should be continuous, the more frequent the discussions occur, the more the students will grasp the importance.



Julian Elementary



South Bay Union

## Cooking in the Classroom

- Safety in the Cooking Classroom: Basic Rules to Follow
  - **Before the cooking class**, learners must wash their hands with soap and water for at least 20 seconds each
  - **Wipe down all** counter and table surfaces with a disinfectant
  - **Do not** let food sit at room temperature for more than one hour before class
  - **Do not** bring cooked food to class, cook all ingredients during or just before class
  - **Do not** let students bring leftovers home
- In the kitchen, students learn skills such as:
  - **Math:** Following recipes teaches counting, measuring, sequences, sorting, and fractions!
  - **Reading:** Cookbooks and recipes allow students to work on their reading comprehensions and vocabulary skills
  - **Science:** Cooking gives an opportunity for students to learn about different food groups as well as where their food comes from
  - **Arts:** Creating food and plating it is a creative and sensory process
  - **Culture:** Cooking provides opportunities to experience other cultures by exploring recipes, ingredients, and spices from other countries
  - **Social Skills:** Cooking as a group uncovers the importance of being responsible, working together, sharing, completing a task, and feeling confident
  - **Physical Development:** Preparing food develops fine motor skills through activities such as cracking eggs, chopping, stirring, pouring, and cutting



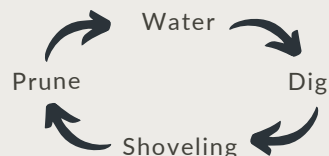
Cajon Valley Union



San Ysidro School District

## Physical Activity

- Time in the garden provides all types of physical activity for students: endurance, flexibility, balance and strength. Activities such as digging, planting, weeding, watering and harvesting utilize many of these types of physical activity.
- Garden-based PE games and activities:
  - Scavenger hunts, obstacle course, garden circuits, stretches, yoga and dancing.
  - Games and outdoor activities can be used for celebrations rather than sweets or toys.
- Sample Garden Circuit
  - Identify a list of tasks to be completed in the garden. Set up multiple activity stations based on number of students. No more than 4 students per station.
  - The circuit cycle should alternate between light and heavier activities.
    - Example:



Vista Unified

- Best Practices for Outdoor physical activity in the garden:
  - Be sure to inform all students at least a day before planned activity, so that they can wear appropriate clothes and shoes
  - If it is hot and sunny, be sure to provide sunscreen and encourage students to wear hats and bring water bottles
  - Give overviews of potential hazards like insects, allergens, poisonous plants, and more

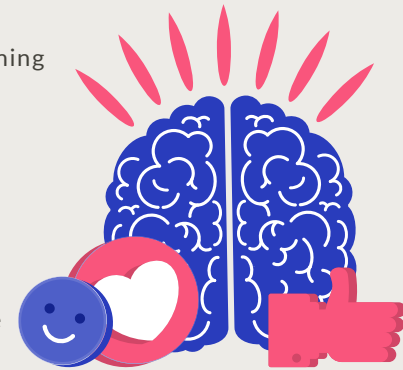
## Mental Health

- Mindful eating practices
  - **See:** What do you notice? What color is it? What shape is it? What stands out?
  - **Feel:** What does it feel like? Is it soft or hard? Squishy or rough? Does it have a texture?
  - **Hear:** Does it make any sounds? What about if you squeeze it between your fingers?
  - **Smell:** How would you describe the smell?
  - **Taste:** Invite the student to close their eyes as they explore the taste. Put the food in your mouth, but before you chew what is the first thing you taste? Is it sweet or salty? Sour or savory? As you start to chew, chew slowly and before you swallow, think about the change in flavor, texture, and sound. Does it change the longer you chew?
- **Meditation, Mindfulness, and Breathwork** in the garden
  - **Garden Senses** - Sitting or laying down in the garden with our eyes closed amplifies the sounds we hear in the garden. Rubbing a leaf together, and asking a student what it feels like and how it smells. Have they smelled this before, if so when and where? How does the scent make them feel?
  - **Weather Reporting** - Have students use their senses to describe how the weather is today. How does it look, feel, and sound? Now look at the weather from the garden's perspective. Is it a good day in the garden? What would make it grow?
  - **Grounding** - Putting bare feet on the ground can help support the body's cellular functioning. Our feet can absorb electrons from the Earth and transfer them into our bodies, which has many physical and mental benefits.



## Social and Emotional Health

- **Nature play can enhance children's social and emotional development. It can teach valuable skills such as:**
  - **Social Interaction Skills:** Allows students to practice teamwork and collaboration by working together to create a thriving shared space
  - **Confidence:** Being in a garden and having a hand in the growth of something new, such as a plant, gives students confidence to try new things and a higher sense of purpose
  - **Problem Solving Skills:** Students can practice solving problems in the garden such as determining what the plants need to thrive, getting rid of pests and weeds, or companion planting
  - **Independence:** Allowing students to focus on tasks independently in the garden gives them a sense of determination and autonomy
- **Engagement in environmental education and increased access to nature-based programs can improve overall health related quality of life and increase family support among youth who are systemically under resources, and BIPOC youth.**
  - Outdoor access in schools creates better access for students who lack everyday access to the outdoors and works to close the gap between BIPOC students and the systemic trauma associated with outdoor activity
- **Mitigating Trauma Responses:**
  - Being in a garden can help to heal and relieve some of the trauma that students face on a daily basis. Gardens show that students can make something positive bloom and grow
  - Gardening also allows students to become fully immersed in an activity with positive energized focus, allowing them to take their minds off of anything causing stress and put it towards the garden



## Assisting Educators

- Offer optional summer classes for educators on wellness in the garden and utilizing garden space
  - Utilize credits to incentivize educators to attend classes and workshops
  - Pair lesson standards with garden and cooking lessons
- Promote existing Continuing Education Unit (CEU's) for lessons and curricula in the garden or regarding wellness
- Offer tips and ideas for stress relief and general wellness for educators
- Make videos for students to learn from, using QR codes to access them to make it easier for teachers to share the knowledge and material
- Hire a garden educator or FoodCops Member
  - Available Funding
  - Best Practices
- Utilize pre-existing lessons and curricula



## Resources & Supporting Organizations

### School Gardens

- Calendar of Grants Available to School Gardens
- School Garden Database
- Garden Activities To Do At Home - With or Without an Outdoor Space
- Whole Kids Foundation: School Garden Resources
- Collective School Garden Network: Curriculum Database
- Network Map of Edible Education Programs
- Wild Willow Farms & Education Center
- Master Gardeners of San Diego
- Sage Garden Project

### Garden to Cafeteria

- Olivewood Gardens
- Edible Schoolyard Project
- San Diego Unified School District: Community Food Producer Protocol for SDUSD
- San Diego Unified School District: Culinary Garden Agreement
- San Diego Unified School District: Conditional Approval of School Food Source
- Vista Unified School District: Child Nutrition Services School Gardens Purchasing Procedures
- Vista Unified School District: Sample Garden Purchase Invoice
- Vista Unified School District: Food Safety Checklist and Questionnaire

### Nutrition & Cooking

- The F2I Center's HOTM Resource Packet
- UCSD Center for Community Health HOTM Calendar
- San Diego Unified's Harvest of Month Farm Video Series
- CDPH HOTM Website
- Best Practices: Handling Fresh Produce In Schools
- Let's Eat Healthy: Curriculum

### Physical Activity

- Using Gardens to Promote Children's Physical Activity and Fitness
- TeacherVision: Nutrition