California Middle School Instructional School Gardens Summary
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Around the World in the Garden: Growing Curriculum
Emerson Junior High School, Davis, CA

Emerson Junior High School is located in the Central Valley, where it is hot and dry in the summer, and cold, but not freezing, in the winter. The student population is about 500. From a tiny plot on the edge of campus, the garden has more than quadrupled and now features a diversity of crops that range from grains, to annuals, perennials and herbs. It hosts over 300 species and attracts a wide variety of beneficial insects. Students plant, harvest, cook and compost. The Emerson Junior High School garden has become the "field lab" for many subjects: Biology, Geography, Applied Arts, Language Arts, Spanish, and Algebra. This garden is an outstanding example of the ways academic core curriculum can be integrated with a plant-based, food-based framework, enriching academic content while affording students to "live" the subject matter through hands-on, experiential education.

A River Runs Through It: Ecology in Action
Carmel Middle School, Carmel CA

"When we try to pick out anything by itself, we find it hitched to everything else in the universe." John Muir

Fueled by Muir's philosophy, Carmel's school garden program is nested within a multifaceted environmental education center called the Hilton Bialek Habitat. The Habitat sits on 10 acres of land next to Carmel River and features raised and in-ground beds, a bee and butterfly garden, pond, a native plant nursery, grassland, a bird sanctuary and a solar-powered greenhouse. It also features an outdoor kitchen and wood-burning oven for cooking classes. Along the nearby Carmel River is native habitat where students participate in science, nature, art, drama, and restoration activities. Carmel's garden curriculum teaches a philosophy of interconnectivity, through standards based, hands-on lessons. While science is the backbone of programming in the garden, many different curricular areas use the garden for experiential learning.

Culinary Arts and School Gardens: The Perfect Marriage
Petaluma Junior High School, Petaluma, CA

Do you know the meaning of “chiffonade”? The students of **Charlene Nugent’s** 8th grade Culinary Arts class at Petaluma Junior High School do. They also know what “julienne” means. Petaluma Junior High’s program is unique for middle schools in that it pairs a culinary program with a garden. It combines gardening, harvesting, prepping, gourmet cooking, and restaurant style dining. These hands-on learning experiences are nested within a Seed to Tablecloth curriculum. These middle school students learn professional culinary skills and essential life skills

Reflecting the Valley: Life Skills through Agriculture
Blaker-Kinser Junior High School, Ceres, CA

The Blaker-Kinser garden program engages students in a wealth of agricultural production tasks that “Make it real for the kids!” Students learn not only science, horticulture, biology and math, but more importantly, Life Skills. **Mike James,** Agriculture & Science teacher, has created more than just a school garden program. It is a microcosm of the agriculture in surrounding Stanislaus County. Students grow products that reflect their county’s bounty. The garden produces a variety of summer vegetables including peppers and tomatoes, and winter vegetables, citrus, herbs, cut flowers and more. With their summer harvest, students enter the Stanislaus County Fair and win first places! They also have chickens, a lathe house for propagation and areas to gather. The garden has been in its present location since 1994 and every year they add to it.

“We’re remaking the wheelbarrows because the old ones were in really bad condition and didn’t work. So we take parts from the good ones and we figure it out all by ourselves. We just follow how we undid them, and we do the reverse when we put them back together.” --student

Farmers, Festivals and Friendships: A Mosaic of Gardens
Baird Middle School, Fresno, CA

Baird Middle School: Hands-on is the key

Baird Middle School is a magnet school with a specialty strand in agriculture. It attracts highly motivated students from all socio-economic groups and all parts of the county who "absolutely love the school because there's a ton of HANDS-ON work in all classes." All students, from 5th to 9th grade, participate in the agriculture program. The gardens provide the hands-on component. Students especially like the Agriculture program because it is taught by Ag in the Classroom's Outstanding Educator of the Year 2000, **Joey Somawang**, who brings a wheelbarrow full of energy to his program and students. Mr. Somawang has sustained the garden program at Baird for 12 years.

Fresno County is the largest agriculture production county in California. The school gardens mirror the region by focusing on Central Valley crops. The program links to Buy California-California Grown; California Certified Farmers Markets; the International Agriculture Program; and CSU, Fresno's Agriculture Program. With Baird's emphasis on agriculture, it becomes a microcosm of the Central Valley's rich heritage.

Building Partnerships: The Team Comes First
Chico Junior High School, Chico, CA

Chico Junior High School's approach to building a garden program has been slow and steady. From the beginning, they recognized the importance of a support team and buy-in from different sectors. Initiated by members of the Slow Food chapter of Shasta Cascade County, the program gradually brought in the school Principal, teachers, students and parents.

Chico Jr. High teachers engage students in creating the infrastructure for their garden in classes such as Industrial Technology and Outdoor Adventure Education. **Mary Anne Pella-Donnelly** has also prepped students in her science class for the garden by having them grow plants and study plant life.

Gardening in an Urban Setting: Empowering Students
Claremont Middle School, Oakland, CA

Claremont Middle School sits at a busy urban intersection, shops on one side, neighborhood on the other, and underneath one of the many freeways crisscrossing the East Bay. With space in short supply, the staff and students have managed to create a lively school garden, graced with whimsical art, all designed and installed by teams of students. Small spaces are put to good use. Much of the garden is designed around containers and raised beds. This has proven to be an easy way to grow a variety of veggies and perennials. The containers allow for ready access, particularly for the Special Education kids, who regularly come out and work in the garden. The garden program links to Claremont's science curriculum. Students also study nutrition, harvest from the garden and create taste treats for each other.

Perennial Partnerships: Cultivating Diversity
Roosevelt Junior High School, San Diego, CA

Roosevelt has a mature garden program with structure and sustainability, and it's taken over seven years to get there. It has been made possible by the dedication of **Heather O'Donnell**, science teacher, who forged ongoing partnerships with the San Diego Zoo, which is next to the school. This has proved to be a win-win situation, with the zoo providing maintenance in exchange for using the garden grounds for its summer workshops with youth. Also, the school participates in the San Diego Zoo's "Girls in Science" program, which creates science-based experiences with professional women from the San Diego Zoo. Through a variety of activities, Roosevelt girls get a behind-the-scene look at the workings of the zoo. At Roosevelt, the program takes place after school, with a group of very committed volunteer students who form a Garden Club.

> "When you have it after school, you find that students have the greatest amount of ownership and they can really do stuff. These are the kids that are REALLY interested." Ms. O'Donnell

Helping Kids Help Themselves: Service Learning and the Garden
University Heights Middle School, Riverside, CA

What's exciting about the University Heights school garden is that students do it all, with teachers acting more like coaches and supervisors than instructors. Because they are at the beginning stages, students can decide what they want to go into the garden and design and build it from scratch. With the California Instructional School Garden grant they received in 2007, they were hard at work breathing new life into their garden. Their vision was to have a working, productive garden by spring 2008.

"The kids are amazing…they have tons of good ideas. That's what service learning is all about. They come up with great ideas, but then have to figure out what needs to be done to make it happen. We want them to design it (the garden), come up with the ideas, write letters, make the calls, get pricing. We really want it to be student driven. This is your garden. We're involved with them, side by side." **Doug Frey**, history teacher and garden coordinator

Stewards by the Sea: Science Education in the Garden
Los Osos Middle School, San Luis Obispo, CA

Los Osos Middle School is located near San Luis Obispo in the Coastal Unified School District. The school applied for a California Instructional School Garden grant to improve their garden area, which was sandy and run down. This evolved into a native habitat garden and a native plant restoration program that involves students in a unique hands-on science program.

Los Osos Garden Science Program Los Osos decided to work with the native habitat surrounding their school rather than create a garden that didn't fit with their environment. For their program, they collaborate closely with the California Native Plant Society volunteers, Susie Bernstein and John Chesnut. The Moro Bay Estuary and Moro Bay State Park have also been close partners with the school, especially the science classes. Students employ both qualitative and quantitative observation in their investigations. Using scientific methods is part of their lab work and fulfills a state standard.

"The habitat survey focused on how to conduct qualitative and quantitative observations. This is what field biologists do. The lesson centers around soil texture." Students consult the U.S. Fish and Wildlife Service curriculum **Schoolyard Habitat Project Guide,** looking at biotic and abiotic factors, and using their soil texture, to summarize the growing conditions and how these plants are able to grow in a coastal desert. And then they look at living and nonliving factors and how they interact. Next, they discuss seeds and seed dispersal, and look at factors and characteristics of seeds for dispersing. The program is a unique way to fulfill academic science standards.

Plants Inside Out: Science Horticulture
Nobel Middle School, Los Angeles, CA

Joe Montanez has been the Horticulture teacher at Nobel Middle School for the past 17 years. This is a magnet school. He teaches six periods of horticulture each day to 7th and 8th grade students. The campus has beautiful grounds that the horticulture students help maintain. The students' large garden area includes vegetables such as artichokes and a rose garden that serves as a memorial garden with benches and walkways. Students use this to "just chill in" or think and reflect. The school garden area also has a large greenhouse lined with orchids and the lath room is filled with a variety of palms that the students have propagated. Palms are also planted in a welcoming bed in front of the school.

The Nobel garden was featured on KCOY TV station's *In the Garden* program the spring of 2007. This publicity and other publicity that the school garden has received help get community support. Joe says, "I wrote an email to Ann Martin and said 'I think we have a beautiful garden. You need to see it and showcase it.'" Ann Martin was attracted by the roses, and saw her favorite rose in the garden. Joe says, "We have lots of roses in this memorial garden. If I see a kid who is depressed, I say go sit in Laurie's Rose garden. "Gardening can help change people's behavior. It's about reaching kids in different ways."

The horticulture classroom provides a multitude of lesson materials, including computers that students use for designing landscape and researching plants. Joe points out that he teaches not only horticulture, but also respect: "I teach about respect for all living things. Show students respect, and they will learn better and want to come to school."