

## **Lowell Elementary School Model Programs and Practices**

### **School Information**

CDS (County District School) Code: 19647256015473

County: Los Angeles

District (Local Educational Agency): Long Beach Unified

School: Lowell Elementary School

### **Demographics**

Enrollment: 699 students

Location Description: Urban

Title I Funded: No

School Calendar: Traditional

Charter: No

### **Overview**

Our Vision: Teachers, staff, students, parents, and the community work in collaborative partnership, utilizing technology, to create lifelong learners who are productive and environmentally conscious global citizens. In 1926, the land at the corner of Broadway and Nieto streets in the southeast section of Long Beach changed forever with the construction of James Russell Lowell Elementary School. Located near the Colorado Lagoon and Alamitos Bay, Lowell shares the city block with Rogers Middle School, our neighbor to the north. It is our yearly goal for each student to make at least a year's growth in English Language Arts (ELA) and Math. To accomplish this, our Single Plan for Student Achievement (SPSA) is focused on rigorous, student-centered, standards-based instruction in all core curricular areas, which are tied to ongoing data collection and assessment. Our School Site Council team meets monthly to monitor the implementation of our SPSA. Teachers meet to examine a variety of student achievement data and discuss teaching practices that prove most effective. Our professional development program is focused on improving student learning with attention to developing curriculum and designing instruction that is aligned with current research and performance standards while recognizing the developmental variations in

each of our students. Students performing below grade level standards benefit from a variety of interventions. National Technology Standards are the basis for technology integration throughout the curriculum. The campus is fully networked and has wi-fi and computers in each classroom. Each grade level also has a class set of Chromebooks that are used daily. Our CHARACTER COUNTS! program provides a framework for integrating character education into all aspects of our school culture. Lowell's PTA with over 950 members provides hundreds of volunteers in the classroom and support for such items as a Meet the Masters art program, dance program, and field trips. Working parents may enroll students in Kids' Club, a LBUSD childcare agency located in two bungalows. All students may enjoy organized playground activities until 4:00 every afternoon. Lowell's campus is well maintained with native gardens and over 100 trees. Inside, the hallways and classrooms are sparkling clean and decorated with student work. Not only are we proud of our continued academic achievements, we are truly proud of the fact that since 1926, Lowell has been an anchor within the community, a place where we join together to form a unified family of learners. Lowell received the California Distinguished School Award in 2004, 2008, and 2014. Lowell was also one of 38 schools in the nation to receive the United States Department of Education National Green Ribbon Award for exemplary programs, practices and systems that teach our students how to take care of our environment.

## **Model Program and Practices**

Name of Model Program/Practice: STEAM Learning Garden

Length of Model Program/Practice: 8+ years

Target Area(s): Nutrition and Physical Activity/Education, Parent, Family, and Community Involvement, Science, Technology, Engineering, and Mathematics, Use of Technology, Visual and Performing Arts

Target Population(s): Two or More Races, Socioeconomically Disadvantaged, English Learners, Students with Disabilities

Strategies Used: School Climate, Parent Engagement, Data-Driven Decision Making, Health Support, Social/Emotional/Behavioral Support, Professional Development, Implementation of Academic Standards Basics (Teachers, Instructional Materials, Facilities)

## **Description**

Lowell has a history of high achievement and community partnership. These two have together made for an excellent place for our STEAM Learning Garden to flourish. Beyond trying to develop life-long learners and responsible community members here at Lowell it is also a priority to develop good stewards of our planet. In 2013–14, Lowell was awarded a National Green Ribbon School award and the Grades of Green Award in recognition of our efforts to reduce environmental impact through education.

The emphasis of the learning garden centers on what the individual can do to help the team make our planet a better place. Lowell's STEAM Multi Curriculum Learning Garden is co taught by our teachers, parent volunteers, and professional consultants. The lessons incorporate mathematics, science, nutrition, technology, language arts, and social studies. The lessons find themselves living cyclically between a pre-teach in the classroom, to real life hands on learning in the garden, right back into the classroom for a post teaching assessment of understanding. With the support of 1:1 Chromebooks at our site in each classroom, students can take their learning into tech supported classroom projects that live in their virtual portfolios in the cloud. The ability to share in this forum has helped our continued quest of collaboration among our students.

Our Learning Garden uses a multi-disciplinary approach to reinforce stewardship of the environment, respect and care for our community, and the interconnectedness of all living things. Every lesson has several academic components (science, math, social studies, ELA), hands-on activities (planting, cooking, modeling) and woven throughout is continual building of respect for each other and our community (manners, donating, recycling). A perfect example is our 3rd grade produce stand. It starts by reading Uncle Willie and the Soup Kitchen to understand the importance of community. Then we plot and plant a vegetable garden. Students create a mock up of a smoothie shop to understand what it takes to run a small business. The students then use concepts of costs/profit to calculate the price of their produce, advertise their sale, harvest/wash/bag/label the bags and run the cash register to hold and on- campus produce sale. All proceeds are donated to the Food Bank of So. Cal. Every Lowell child participates in our Learning Garden - totaling 8,000 instructional hours per year.

## **Implementation and Monitoring**

Every student has a monthly lesson in the Lowell Learning Garden which provides a combination of project and inquiry-based learning opportunities that build on student knowledge as they move through the grade levels. Lowell provides more than 8,000 student hours of outdoor, garden-based learning experiences each year. Once students have experienced all of the lessons, they show confidence in their understanding of the natural world which includes plant life cycles - from planting to harvest to seed saving; using an on-site Solar Bench to calculate the benefits of solar power as a renewable resource; designing, engineering and test driving zucchini race cars; using the sun's energy to make artwork, and using dried "pea seed math" to count, graph and make predictions about the average number of peas in a pod.

Learning Garden lessons vary by grade level:

- TK-seasonal planting and tasting of garden vegetables; meaningful work in the garden; eating the colors of the rainbow
- K-Centennial Farm trip; hatch chickens in the classroom; grow vegetables/herbs and make recipes; use tools to measure plant height; keep journals with writing and drawings to record plant growth

- 1st grade-plant/harvest peas; make weather stations to track weather/seasons; make ice cream to explore states of matter
- 2nd-interview farmers at a local Farmers Market; learn about “Farm to Table” by planting crops and harvesting/processing/ distributing; take/analyze soil samples; use old fashioned tools and churn butter, plant CA native plants in our Schoolyard Habitat and use creative writing/art to explore what it means to be native to a place
- 3rd-use chromebooks to track health with USDA’s MyPlate, plant a garden as a “small business” then market/sell produce and donate proceeds; hatch quail for CA Symbols and create journals to illustrate, observe and make predictions about quail hatch and development;
- 4th-walking field trip to CO Lagoon to study ecosystems; tend compost piles (traditional/worm); engineer geology models; study/model watershed pollution, use creative thinking to explore what it means to be an entrepreneur; use chromebooks to collect and upload data from our Schoolyard Habitat
- 5th-plant and tend a Colonial medicinal/culinary herb garden (plant dyes, tea, apothecary kits); make life-sized human body system models; dissect a lily to learn about reproductive plant parts; make chlorophyll artwork; photosynthesis demonstration; conduct a school waste audit; lead a Zero Waste Lunch effort

At every grade level, there are opportunities to think, explore, connect and reflect in the garden. Students use chromebooks, journals, garden props, and the gardens themselves to extend and reinforce learning. The Lowell Learning Garden exposes students to multiple art modalities such as making simple sculptural forms using clay, exploring garden concepts by sketching in personal notebooks, and replicating patterns in nature with paint.

## **Results and Outcomes**

The Lowell Learning Garden won a California PTA Spotlight award and was a major contributor to the school’s U.S. Department of Education Green Ribbon Schools Award in 2014. More than 60 parents volunteer in the program which delivers over 8,000 hours of hands-on, experiential learning every year. When asked, one parent remarked, “Volunteering in the Learning Garden I’m impressed with the hands on learning students are doing connecting the classroom, technology, and nature.” From using unifix cubes to measure plant height to harvesting colonial era plants to dye fabrics for corn husk dolls, the garden provides a robust range of STEAM activities.

Our EL Designation Rate went up 30% this past year due to extended activities outside of the classroom such as our Learning Garden. This increased opportunity to collaboratively work with other students on STEAM activities helped to increase language acquisition for our English Learners. In speaking with one of our EL students she expressed that working in the garden has given her the “confidence to share out her

findings in the classroom” due to the fact that she herself “planted a seed that is now a growing plant”. This is the ownership of learning that our STEAM Learning Garden provides for all of our students. The extension back in the classroom with 1:1 Chromebooks has been immeasurable as students share their findings with one another. Students have the opportunity to create slides that document the scientific process that they followed. These slide decks then are shared in the form of presentations with peers and parents. This parent, student, and teacher relationship solidifies the collaborative nature that our learning garden provides. We have also taken part in district led CIVs (Collaborative Inquiry Visits) where members of our district walk through our classrooms and give feedback based on our theory of action. The feedback that we have received the last 3 years has highlighted the collaborative work that we have done both in and out of the classroom, pivoting around our Learning Garden. With technology being a part of our theory of action this year, the consensus following our latest CIV is that the extension to technology has been seamless and has provided an additional layer to the extension of our students learning and sharing. Our overall growth on our SBAC math results shows growth that correlates with our students visitations to our Learning Garden. As a school we went up 2% on our scores as students used the standards being taught in the classroom and applied them to real life experiences.

The Lowell Learning Garden provides an extension to use math skills and concepts learned inside the classroom to solve real world inquiries outside of the classroom. The meaningful experience in the garden for students to practice their math skills has directly impacted math scores in the classroom. In 2016–2017 math unit scores averaged 78.5% and then in 2017–2018 scores rose to 84%.