

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

### **School Information**

CDS (County District School) Code: 07617706004451

County: Contra Costa

District (Local Educational Agency): Orinda Union Elementary

School: Glorietta Elementary School

### **Demographics**

Enrollment: 474 students

Location Description: Suburban

Title I Funded: No

School Calendar: Traditional

Charter: No

### **Overview**

Glorietta Elementary School is a place of discovery, wonder, joy and fulfillment! We aspire to make learning meaningful and challenging for all, while fostering an environment that is nurturing, supportive, and inclusive. Credentialed teachers are experienced, support staff is valued for their hands-on contributions, and parents are integral partners of the educational process.

High academic performance (as measured by CAASPP) is consistently maintained through implementation of best practices, benchmark assessments and performance monitoring. We approach teaching as facilitators of learning and focus on continuous improvement in literacy, mathematics, history/social studies, and science. Teachers receive support and training from teacher leaders, as well as Orinda Unified School District's (OUSD)'s Teachers On Special Assignment. Additionally, teachers devote countless hours collaborating with colleagues, and are encouraged to attend professional development workshops and conferences.

In support of our school's recently renewed mission, Project-Based Learning activities and experiences offer students real-world challenges through a multi-disciplinary approach. This new approach offers students cross discipline challenges that apply depth of knowledge and 21st century skills to explore, create, collaborate and communicate in our ever-changing society. To help propagate this effort, all classes visit our newly constructed STEAM lab weekly.

A critical factor in Glorietta's success is the dynamic partnership between the school and community. Through the generous support of our Parents' Club and the Educational Foundation of Orinda, a cooperative "can do" attitude exists that in turn fosters outstanding programs and rich learning opportunities. We are also able to maintain low class sizes and hire credentialed music, art and physical education specialist, as well as experienced instructional assistants in all classrooms and labs. Parents' Club funds also provide our "21st century learners" with 1:1 technology devices, resources, and coaching.

Beyond academic rigor and inquiry-based instruction, our distinguished Character Education practices spotlight our commitment to educating the whole child and fostering a caring community where all are contributing members. Glorietta's 'Build Character; Build Success' mantra reinforces OUSD's strategic goals by cultivating ethical and responsible citizens through monthly character traits, school-wide events, and community outreach opportunities. Attractions include student led services, buddy class projects, Diverse Abilities Awareness Week, and Children Helping Community outreach projects. To help foster a more inclusive community and instill positive social skill, we offer Think First, and Kidpower workshops for increased awareness and empowerment.

Glorietta is a caring community that prides itself on rich traditions, high academic standards, and a drive to cultivate dreams in a global society!

## **Model Program and Practices**

Name of Model Program/Practice: "STEAM-ing Towards the Future"

Length of Model Program/Practice: Less than 2 years

Target Area(s): Career Technical Education, Closing the Achievement Gap, Education Supports, Parent, Family, and Community Involvement, Professional Development, Science, Technology, Engineering, and Mathematics, Use of Technology, Visual and Performing Arts

Target Population(s): American Indian, Asian, Black or African American, Filipino, Hispanic, Pacific Islander, White, Two or More Races, Socioeconomically Disadvantaged, English Learners, Students with Disabilities

Strategies Used: Small Learning Communities, Parent Engagement, Data-Driven Decision Making, Professional Development, Implementation of

Academic Standards Basics (Teachers, Instructional Materials,  
Facilities)

## Description

Involving stakeholders in the pursuit of our goals has always been a tenet of our practice, and the Single Plan for Student Achievement guides our efforts. Glorietta's strategic plan includes cross discipline action steps and the allocation of supporting funds. With the generous community contributions Glorietta's STEAM education vision became a reality. In our inaugural year (2016–17), our STEAM related accomplishments included:

- Integration of literacy across all STEAM related disciplines
- 1:1 technology devices purchased (K–5)
- Project Based Learning opportunities connected students' cultural and personal lives
- Workshops and special events sparked STEAM interest
- PD included STEAM Symposium, PBL World, Silicone Valley Math Institute
- Themed attractions:
  - Card Board Challenge followed by an interactive arcade
  - Family Math and Science Nights
  - Library offered Maker Lab projects during lunch
- New school garden provides hands-on cross discipline learning
- Earmarked Parents' Club funds used to purchase inquiry-based materials
- OUSD Technology Coach introduced robotics, coding, and programming
- A PBL website was developed for sharing STEAM resources and activities

This school year, STEAM integration has gained momentum. The keystone to our practice is our STEAM Lab. All classes enthusiastically visit the lab regularly and use the Engineering Design Process to problem solve. Selected activities align to standards and have a real life application, which makes this cycle of inquiry a more constructive one. Beyond lab visits, grade level teams identify STEAM challenges on a regular basis as a way of extending the learning process. Furthermore, science instruction incorporates three-dimensional learning across grades. With support from our BaySci teacher leaders, FOSS modules provide enduring explorations that lead to a deeper understanding of the natural world. In Mathematics, students explore a variety of

mathematical concepts and participate in a wide range of activities and projects (such as creating board games, marketplace simulations, and testing theoretical probability.) Common technology experiences enable all students to utilize digital resources, research information with greater depth, and share their wisdom in multimedia ways. Customized learning opportunities include Google My Maps, iMovies, Minecraft to build missions, educational apps, and adaptive programs (e.g. Redbird, DreamBox).

Our signature practice is enriched through outdoor explorations, fieldtrips, workshops, service-learning opportunities, after-school classes, and popular family events. Glorietta's STEAM related projects and activities contribute to high levels of engagement and greater depth of knowledge. Through this multi-modality approach and an exposure to a variety of cross discipline experiences, Glorietta students' diverse needs are being met, and in turn, academic success is rampant.

### **Implementation and Monitoring**

The focus on STEAM education has led teachers to incorporate science, technology, engineering, art and math with greater frequency and success. This school year kicked off with a staff think tank where by we established our annual STEAM goals, insuring they align with OUSD's strategic direction and Glorietta's mission. As part of this Professional Development Day, the Engineering Design Process was introduced through an interactive group challenge. Key attributes were discussed and California Standards were looked at as part of the process analysis. This has become the focus of our efforts during the 2017–18 school year. Beyond increased exposure to STEAM related challenges and real world problems, an increased number of cross-curricular lessons and projects are incorporating design-thinking strategies.

STEAM specific experiences are offered to students during their weekly STEAM lab visits where a trained paraprofessional assists with set up and lesson delivery. Given that our STEAM lab is fairly new, challenges focus upon collaboration, communication, critical thinking, and the validation that failure is a critical part of learning. Teachers plan STEAM units and lessons during weekly common planning times, and call upon our Technology, Math, and Literacy coaches for guidance. As an example, in kindergarten STEAM activities are part of the daily stations, third grade rotations offer curriculum aligned challenges, fifth graders incorporate a STEAM related project in their Colonial America unit, buddy classes embark upon STEAM challenges as part of their cross grade interactions, and our popular coding class is one of many after school enrichment offerings. Furthermore, STEAM related outcomes include:

- Engineering Design instructional model used to reinforce Standards
- Cross-discipline Project Based Learning (PBL) opportunities offered to students
- BaySci trained teachers assist with the implementation of NGSS in all grades
- Planning time and professional development related to STEAM provided

- Students problem solve and apply mathematical reasoning with a focus on real world application
- Utilize informational text to reinforce STEAM concepts and literacy skills
- Students with special and exceptional needs thrive in STEAM challenge settings
- Parents volunteer in Maker Space, provide classroom demonstrations (solar power, bridge building) participate in workshops and family events
- STEAM related happenings shared with school community via e-newsletter
- \$3500 per grade earmarked annually for program enrichment (e.g. workshops, robot purchase)

With support from District leadership, our parent community, and a committed staff, STEAM education is providing Glorietta students' new opportunities and inquisitive experiences that they relish. As we learn new compelling instructional methods and effective teaching strategies, our Signature Practice will continue to be refined, enhanced and improved!

## **Results and Outcomes**

STEAM education fosters a spirit of innovation, exploration and experimentation. This transformational culture shift has been slow moving, and is somewhat 'messy work' although rewarding. Currently staff and student feedback is used to monitor progress, however we believe that STEAM education has positively impacted student performance. Research studies show that on average, fifth graders spend 90% of time listening or doing seatwork on their own. Furthermore recent national studies indicate that students receive five times more instruction in basic skills than on problem solving and reasoning; this is not the case at Glorietta!

Although our desired outcomes go far beyond standardized test scores, it is worthy to note that in 2017, 88% of Glorietta's students in grades 3–5 met or exceeded State standards in English Language Arts, and 87% achieved this benchmark in Mathematics. These consistently high CAASPP scores place Orinda schools in the top 1% of districts in the State. It is also worthy to note that for the last years of the CST Science test, our fifth graders performance ranged between 94%–100% proficiency.

At Glorietta, student progress and instructional practices are reviewed frequently. Twice a year administrators, support coaches and teachers convene to analyze performance data, celebrating accomplishments and identifying opportunities for improvement. Targeted instructional supports are developed, and grade level teams customize their instructional plan to address cohort needs. As related to STEAM integration, Site Council monitors specific goals and supporting action steps. Additionally, STEAM lab initiatives are discussed at staff meetings to build capacity and improve our practice.

With the California Standards and Next Generation Science Standards, instruction focus has shifted as evident when walking through classrooms as well as perusing subject matter notebooks. Student-centered learning strategies provide opportunities to pose questions, seek answers, argue from evidence, construct explanations, and develop models that increase conceptual understanding. One recent study found that those who learned science through well-developed inquiry based curriculum scored higher on standardized exams than those in traditional classrooms.

STEAM involvement is on the rise! One noted measure is the 20% increase in Science Fair participation over the past three years. Visitors see students using technology, making projects, collaborating in groups, presenting their work through multiple modalities, and discussing what they learn. Parents have recognized and acknowledged the transformational shift as well. They validate students' enthusiasm and excitement, and provide positive feedback regarding the inquiry based learning experiences provided. They also praise staff for breaking ground with STEAM education, and applaud the strides we've made. As a unified team on a mission, our Glorietta Gophers are STEAM-ing toward the future!