

Wagner Ranch Elementary Model Programs and Practices

School Information

CDS (County District School) Code: 07617706066583

County: Contra Costa

District (Local Educational Agency): Orinda Union Elementary

School: Wagner Ranch Elementary

Demographics

Enrollment: 398 students

Location Description: Suburban

Title I Funded: No

School Calendar: Traditional

Charter: No

Overview

Wagner Ranch (WR) is a beautiful campus nestled among the trees and hills of Orinda and adjoining the Wagner Ranch Nature Area. In addition to 19 grade K–5 classrooms and one special day class, we house an art room, music room, science lab, resource room, computer lab, and library. We share our multi-purpose room and ball fields with the City of Orinda. We believe that the physical quality of our school buildings positively influences learning and teaching. Our spring 2017 School Climate survey showed that 97% of our parent respondents “agreed” or “strongly agreed” that Wagner Ranch buildings and grounds are clean and in good condition.

Our supportive parent community is evident in extensive volunteerism in a myriad of parent club activities and programs and in our classrooms, library, garden, and other venues. In addition, parent contributions enable us to provide enrichment courses, maintain small class size, and provide students with the supplies and materials needed for a first rate education.

Wagner Ranch Elementary School is committed to inspiring students to academic excellence within a community that fosters respect, responsibility, empathy, and optimism. Our continuing objective is to prepare students for college, career, and life in the 21st century and to encourage a lifelong love of learning.

Our staff engages in professional development and collaboration to align instruction and develop lessons that meet the rigor and depth of knowledge expected by the California Standards (CS). Our ongoing work with Columbia Teachers' College Reading and Writing Project, BaySci (led by Lawrence Hall of Science, Exploratorium, and Inverness Research) and our district's robust professional development program continue to move us toward a comprehensive, universal implementation of CS.

Technology is a significant component of our educational program. We have a 1:1 ratio of Chromebooks at grades 3–5 as well as a MacBook cart. In grades K–2 we feature one iPad for every two students. Classrooms also visit the computer lab to access more powerful computers. Interactive whiteboards and document cameras are present in all classrooms to enhance instruction. Students generate content using the Google Suite of productivity apps as well as creativity software like iMovie.

Continuous focus on a comprehensive implementation of the CS, powerful, sustained staff development, and frequent collaboration to implement best practices has resulted in exceptional achievement for all Wagner Ranch students. The 2017 CAASPP demonstrate this as in math 92% of students tested “met or exceeded standards” and in English/Language Arts 91% met these criteria. Our California Standards Test (CST) science exams show the historic strength of our science program. In 2014, 96% of students tested scored “proficient” or “advanced”. In 2015, 98% of our students met these objectives. We have continued to build on this success!

Model Program and Practices

Name of Model Program/Practice: Science Instruction aligned with Next Generation Science Standards

Length of Model Program/Practice: 5–8 years

Target Area(s): Science, Technology, Engineering, and Mathematics

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

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

Description

Our science program exemplifies NGSS's philosophy and standards which are based on Three Dimensional Learning (Practices, Core Ideas, and Cross Cutting Concepts). Our instructional program features inquiry-based investigations, science journals, regular use of a science lab, access to an 18 acre preserve and educational garden, a high ratio of technological devices, well trained staff, an annual two day Makers' Faire, science based assemblies and field trips, and dedicated ELA units of study featuring science-based non-fiction reading and expository writing.

With the adoption of OUSD's Vision for Science, we began to implement NGSS in 2012 and became a BaySci District in 2013. FOSS modules have been an integral part of our science program for over 10 years. NGSS implementation is built on a solid foundation.

The OUSD vision states, "Students will have meaningful, regular access to high quality science and engineering learning experiences, in a variety of richly complex learning environments. These experiences will inspire curiosity, wonder, and a deeper understanding about the observable world, and will build student capacity to be scientifically literate, environmentally responsible citizens, while providing a foundation for their future career and lives".

We bring this vision to fruition in a variety of ways. Classroom studies and investigations come from the latest FOSS Modules and FOSSweb. Science notebooking began in 2015 with district wide professional development. Our Nature Preserve provides direct engagement with nature and the opportunity to make connections between science phenomena and the natural world. Here, students have regular opportunities to learn science through richly complex learning experiences (WR Nature Area, garden, San Pablo Creek, outdoor labs).

Our parent community is highly invested in science education, providing financial support for our science and garden IA's, our instructional coaches, and garden equipment and infrastructure. Parents help with upkeep of our garden and volunteer weekly during class visits.

Our engaging science program captivates many otherwise uninterested students, including those with behavioral or social emotional issues, thus reducing off task and inappropriate behaviors. Our "chronic absenteeism" rate of 4.5% in 2016/2017 is more than 50% lower than the state average and we had no suspensions in that year. School climate and our strong academic programs motivate students to attend school and help minimize serious behavioral issues.

As referenced in the School Overview, the depth, strength, and engaging nature of science education at WR has resulted in exceptionally high science scores and buoyed our success on CAASPP. Students from all of our demographic groups and those with special needs share in this success. Beyond standardized tests our students have shown success in the national NASA Spin-Off Challenge placing three finalists in the past two years.

Implementation and Monitoring

Teacher leaders, Teachers on Special Assignment (TOSA's), outside consultants, and workshops ensure that our teachers are highly trained and supported. District BaySci teachers work with the director of curriculum of instruction (C & I) to plan and lead "in house" professional development. Under the leadership of the district's Technology TOSA, teachers learn to use the latest technology to support student learning. Model lessons, such as recent iMovie training in support of students' NASA challenge project, enhance instruction. Our full time math TOSA supports teachers and ensures that students are adept at representing and interpreting statistics with graphs, charts, tables and other skills essential to success in science.

Teachers have expertise in monitoring and evaluating student progress through a variety of methods, including using discourse and argumentation from evidence and claims, science and accountable talks, and science journals. FOSS modules contain "Checks" at the end of each investigation which monitor students' understanding of core ideas, concepts, and practices. Embedded end-of-unit assessments, which are framed like CAST, provide summative data.

Parents, community members, OUSD Trustees, and the district office all play crucial roles in the strength and success of our science program. The WR Site Council observes instruction, studies achievement data, and learns through presentations by our instructional coaches. At this year's Technology Education Night, approximately 60 parents learned about technology use at school, beneficial at-home activities, and cyber safety. Last year we held a similar evening for math. Another, at the district level, is being held this month. In 2014, BaySci presenter, Craig Strang, and teacher leaders hosted a district wide science night at WR.

Parents are a constant presence on campus and actively involved in science activities such as: Maker Faire, culminating science activities like the 1st grade weather unit and 4th grade science faire, garden maintenance, and on field trips. We inform parents and solicit involvement through our weekly newsletters, website, and new electronic marquee. Parents provide feedback through specific, needs based surveys as well as our annual school climate survey which also seeks input on academics. To date, 83% of families have contributed to our annual fund drive and, in February, parents logged over 500 hours of volunteer work on campus. Our parents get involved early and often to help make Wagner Ranch thrive.

The San Francisco Bay Area provides wonderful resources to extend and strengthen students' understanding of STEAM principles and applications. Students benefit from trips to a pumpkin patch, visits from the Zoo Mobile, environmental study through Kids for the Bay, visits to the Marin Headlands, sailing tall ships on the Bay, and field expert presentations. Our upper grade students participate in overnight outdoor education experiences.

Results and Outcomes

Teachers consistently monitor student progress and the efficacy of our science program using many tools and in various forums. Quantitative and qualitative data, including informal observations, science notebooks, periodic quizzes, and unit tests form the nucleus of our assessment tools. At the district level, our BaySci Teacher Leaders work closely with the Director of Curriculum and Instruction, and BaySci consultants to evaluate current practices and introduce and implement improvements to the program. In early March, all OUSD principals and the Director of Curriculum and Instruction will observe science lessons at two of our elementary schools enabling us to more effectively monitor and guide progress at each of our schools.

Wagner Ranch teachers use weekly collaborative planning time to review past and plan upcoming investigations and units of instruction. We review student progress and challenges, and discuss best practices to make continual improvements to instruction and curriculum. This work is leading teachers to integrate science into our ELA units to enhance science instruction and to maximize instructional minutes.

Our student achievement on the statewide assessment demonstrates schoolwide mastery in reading and math, the skills fundamental to success in science. On the 2017 CAASPP in math 92% of students tested “met or exceeded standards” and in ELA 91% “met or exceeded standards”.

We eagerly await the 2019 CAASPP administration when CAST scores will be reported for students, schools, and districts. Our CST science exams show the historic strength of our science program. In 2014, 96% and in 2015, 98% of students tested scored “proficient” or “advanced”. We are confident that, as we have continued to move deeper into this implementation, our students will again show a high level of mastery.

Classroom teachers, resource specialists, and our ELL teacher provide small group and individualized support for students with academic challenges. As a result, less than 1% of our students scored “below basic” on the 2014 or 2015 CST and, conversely, approximately 97% scored “proficient” or “advanced.” Our “statistically significant” subgroups are White (62%), Asian (23%), and Two or More Races (5%). All scored within school norms, with almost all at advanced or proficient. “Students with Disabilities” comprise 8% of our population. On the 2017 CAASPP, 71% of these children “met or exceeded standards” and in Math 79% met this criteria. We continue to support these children through Tier I, II, and III Interventions.