

**Ancillary Unit Annual Report
Central Valley Science Project
July 1, 2012 – June 30, 2013**

Purpose of Ancillary Unit

Project Director: Jerry Valadez, Ed.D.

Philosophically, the CVSP aspires to build a learning community that promotes science achievement for all students through providing high quality professional development and leadership experiences for teachers.

We believe:

- ❑ That effective science teachers are competent in science content, are capable of delivering standards-based content to diverse groups of students through sound pedagogical strategies, and are willing and able to assume leadership roles within the discipline.
- ❑ Science is for ALL students; consequently gender, status, cultural and linguistic equity issues are integral components of all site programs.
- ❑ Science learners, whether teachers or students, gain conceptual understanding and develop investigation skills through actively "doing" science.
- ❑ That teachers learn from other teachers by sharing their best practices.
- ❑ Teacher leaders are a key factor in improving science achievement.
- ❑ That assessment of student learning should inform our program design and implementation.

Geographically, CVSP serves an area of four counties: Madera, Fresno, Kings, and Tulare. Included in this region are urban centers such as Fresno, with the fourth largest school district in California, suburban communities and large rural areas. With changes in the CSMP enabling legislation, CVSP has more recently focused its resources in serving partner school sites, while still maintaining a strong and visible presence in the region. Partnerships include:

- ❑ Parlier Unified School District
- ❑ Fresno Unified School District
- ❑ Washington Union School District
- ❑ Sanger Unified School District
- ❑ Fresno County Office of Education

The CVSP leadership team, composed of University professors, classroom teachers and district science administrators, is uniquely qualified to implement professional development content and leadership programs. The accomplishments and affiliations of these individuals testify to their qualification in science content, pedagogy, and leadership. It is through the combined efforts of these professionals and our many collaborators that CVSP proposes to make positive and far reaching contributions to science education.

Administrative Housing of Ancillary Unit

The Central Valley Science Project is operated out of the Associate Dean's Office in the Kremen School of Education and Human Development at California State University, Fresno.

Major Accomplishments 2012-2013:

In the past academic year, CVSP has offered **42 events** that provided **810 teachers and administrators** from throughout the Central Valley and California, with **166 hours** of professional development. In addition, CVSP provided direct services to 55 teachers and 3,000 students on school sites, and 7,000 parents and children during Family Science programs and Maker Faires in the communities. Director Jerry Valadez was appointed by Tom Torleckson to the Science Expert Panel on NGSS and serves as a resource on NGSS to the Central Valley. The activities fall into three broad categories:

1. Summer Institutes
2. Academic Year Workshops (Content, NGSS, Common Core)
3. Leadership Development Seminars and Presentations (STEM, NGSS, Common Core)
4. School-based enrichment programs
5. Family Science Events
6. Conferences

Sources of Funding:

- a. Funding for CVSP comes from the University of California Office of the President through the California Subject Matter Project program.
- b. CVSP does not collect income from services or product sales.
- c. CVSP operates solely on revenues from the UC Office of the President.
- d. Grants (Sempre Foundation)

Space and Equipment Utilization:

CVSP does not use or require campus space or equipment beyond that of a faculty office for the PI, Dr. James E. Marshall, who also serves as the Associate Dean for the Kremen School.

Goals and Objectives 2013-2014:

For the period of July 1, 2013 to June 30, 2014, CVSP proposes the following activities:

- ❑ CVSP will continue its partnerships with area school districts and informal institutions to advance teacher learning and expertise.
- ❑ CVSP will develop and support teacher leadership. Current focus in on implementation of the NGSS and Common Core ELA and Mathematics.
- ❑ Support teachers and schools to ensure full access to core science curricula for English Language Learners.

Proposed activities include:

<i>Timeline</i>	<i>Activities</i>	<i>Outcomes</i>
Summer 2013	Summer Institute - 25 4 th -12 th grade teachers will participate in 60 hours of science content	• Enhanced content knowledge and pedagogical skills emphasizing NGSS, Common Core ELA, and EL.

	professional development	<ul style="list-style-type: none"> • Improved understanding of climate change impacts and human sustainability. • Use of online and virtual resources to support instruction and learning. • Greater confidence in teaching science content. • Use of data collection tools.
Academic Year 2013-2014	Weekend university, NGSS, Common Core, ELD, scientific and engineering practices, Climate Change, Environmental Education, Maker Faire.	<ul style="list-style-type: none"> • Enhanced content pedagogical skills emphasizing scientific and engineering practices, EL strategies, and Common Core ELA. • Online PD and flipped classroom lessons. • Greater confidence in teaching science and engineering. • Improved understanding of STEM by the community. • Increased participation in STEM by the community.
Academic Year 2013-2014	School-based Makers Workshops, STEM & Arts Academy for students, NSTA online PD, flipped classroom lesson designs, Family Science events, STEM Conference, CSTA Conference, EL workshops, NSTA Conference	<ul style="list-style-type: none"> • Apply content and pedagogical lessons learned • Teachers engage in reflective dialogue as part of a professional learning community • Increased student participation in STEM in school and during OST. • Increased family participation in science events • Increased use of online resources. • Increased access to STEM for EL students
Academic Year 2013-2014	Continual assessment and evaluation of programs through pre-post exams, teacher surveys, student surveys, student work, writing samples interviews, and projects.	<ul style="list-style-type: none"> • Increased competence in addressing the use of scientific and engineering practices in the classroom or informal environment. • Improved teacher confidence in use of NGSS and Common Core. • Improved teacher confidence in use of EL strategies. • Improved teacher content knowledge. • Higher confidence in use of classroom strategies.
Additional Inquiry: Academic Year 2013-1014	<p>1. Development of two PD modules using PBL approaches to learning scientific and engineering practices.</p> <p>2. STEM and Arts Rural Initiative – in response to the dearth of STEM programs available to rural communities, schools, and</p>	<p>Will present 3-hour workshop at CSTA using modules developed by CVSP staff. Modules will be designed for dissemination.</p> <p>Evidence will include an increase in STEM and Arts activities and events in targeted schools and communities. Interviews and video documentation will be collected in anticipation of finding resources to mine the data at later time. Collaboration with Community Science Workshop Network in developing metrics and finding</p>

	<p>youth, the CVSP has initiated efforts to establish a rural STEM center in Sanger, California. Through collaborations, grants, and donations the center will be established and become a hub of activity for youth, teachers, parents, and community members. The center will also be used as the launching of programs to serve the rural communities of Parlier, Reedley, Orange Cove, Dinuba, and others.</p>	<p>resources for the research. Current partnerships include the City of Sanger (Mayor’s Office), SAM Academy (OST STEM program), CSW Network, and Fresno Art Museum.</p> <p>Establish Community Science Workshop and Professional Development Center in Sanger to serve the rural communities of the San Joaquin Valley.</p>
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Request for Renewal of the Unit

Please allow this report to serve as our formal request to continue the Central Valley Science Project as an ancillary unit of California State University, Fresno for the 2013-2013 academic year.

Appendix

A. The unit’s financial statement prepared by the California State University, Fresno Foundation.