



Community
Science
Workshop
Network

CSW Network Capacity Building Project

Final Grant Report

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Submitted

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S.D. Bechtel, Jr.

Foundation

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By

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Narrative Report of Progress made through August 2017

The Community Science Workshop (CSW) Network has over the last seven years developed a culture of learning by supporting member sites as they developed their programs, instructional teams, curriculum, administration, financial management, and fund development infrastructures. Common features of each program includes a pedagogy based on inclusion, non-traditional learning environments and programs in environmental stewardship, STEM education, Making, and the arts. All network sites offer after school time, summer, and in-school programming for youth and families. Founders included the directors of participating sites who were instrumental in developing the CSW Network, and bringing it forward with a strong reputation.

The CSW Network, now a 501 (c)(3) public non-profit corporation, includes new members and affiliate locations in rural and urban communities, libraries, and schools throughout California. The CSW Network exhibits good organizational resiliency in the way it has sustained itself through changing circumstances and continues to build its capacity to carry on the work and adapt to any unforeseen situations. In the last year more than 6,000 individual students made 35,000 visits to CSWs, along with 1,000 parents making 6,000 visits to CSWs or participating in CSW parent workshops.

The following narrative reports the progress made in this last cycle of the grant in meeting the objectives of the grant.

Objective: Enhance the sustainability of the Network

Whereas the original board of directors of the organization was composed of the five original site directors, today CSW Network has completed its transition to an at-large governing body that oversees the fiscal and governance of the charitable organization. Board members act as ambassadors for the CSW Model and advocate for low-income children and families throughout the state, rather than just representing a region or the site they are linked to as volunteers or directors of programs. This vision was included in the five-year (2012-17) strategic plan developed in 2011. The board leadership transition started in March 2014 with the addition of Lisa White, Chris McCarthy, Jean Pennycook and Paloma Garcia-Lopez to the board of directors. Subsequently, the board adopted nonprofit norms and the staff dedicated itself to the management of programs and services. Despite the setback of having hired and lost new ED Sol McKinney in 2016, the appointment of Board President Jerry Valadez as interim CEO has proven fruitful. Dr. Jerry Valadez has led a successful transition in the past 12 months, surpassing program expansion goals, targeted number of clients to be served, and fundraising goals. In alignment with CSW's continued board development and re-focus toward policy setting and governance, Dr. Valadez resigned as a board member in July 2017, to focus entirely on his new role as CEO with a commitment to this position for the next three years. Further laying the groundwork for long-term sustainability, the board approved the nomination of two new board members: Parker Thomas, who brings knowledge and personal experience as a Maker and is

Founder and Partner at Mirus Labs and Lisa Ernst, whose prolific career as a science educator brings valuable insight to the board. Their bios are appended to this report.

Objective: Fundraising and Grant Making Program

In the last cycle (2015-2016) each member site received a \$7,000 grant from the network to support the “drop in” hours in after-school time and Saturdays. This “open tinker time,” makes CSW Network programs unique in these communities because they are free and open to children and families. Oftentimes, the local CSW is the only contact children have with a “science center,” science curriculum, or science instructor throughout their elementary education. Sites that provide fee-for-service field trips to schools report that many students return to the CSW during drop-in hours to continue exploring their ideas and go deeper with creative engineering and/or science investigations. Unfortunately, “drop in” programs continue to be the most difficult program component of the budget to fund consistently for some sites. Not all sites have drop-in programs, but those that provide drop-in hours do so with minimum staffing and less consistency and frequency in the week to week schedule. Without experienced grant writing staff to support submissions of proposals at each site, this program component will continue to be one that the Network targets for fund development support.

CSW is leveraging its resources through strategic partnerships. For example, “Friends of the Library” is funding expansion of the existing CSW program in Watsonville to an additional library branch. The City of Watsonville has awarded a contract to CSW Network to operate the programs at the library sites because CSW’s sound management practices and successful operation of the science workshops and programming have made this a mutually beneficial partnership. The continued partnership with CSW enables the City to “add” or expand this popular and valuable educational component to its Library resources despite the City not being able to assume additional programs outside of the current physical space on 2nd street. CSW benefits from less overhead costs and the proximity of the locations to the community being served and accessibility of the library facilities. This leveraging of resources benefits the children in this rural community where 27% of the population lives below the poverty level.

Another facet of CSW Network’s capacity building is the trust it is building with funders. Several foundations have funded the CSW Network as an intermediary receiving, managing and providing oversight of funding for other sites or programs because of our 501(c)(3) status and sound management practices.

Development systems and tracking of donors: Dr. Valadez has attended Board workshops and fundraising workshops to learn how to develop donor-tracking systems. A software application managed by BackOffice has been established for the CSWN to track donations and follow-up. He has also established relationships with other foundations in support of the CSWN. In addition, CSW Network has contracted Maria Elena Riddle as a fund development consultant. Starting July 1, 2017, she is conducting prospect research and working with the President on the

development and submission of proposals to fund youth development, gang intervention/prevention, juvenile crime prevention, and STEM education workshops that CSWN programs provide statewide. The immediate fundraising goal is to raise \$50,000 in new foundation dollars to meet the annual goal of \$265,000 in FY2018. Second, the CSWN will raise another \$50,000 to make grants to sites and new programs next year. In FY19, CSWN would like to diversify its funding sources enough to continue to work with Mrs. Riddle or hire a part time Development assistant on staff whom she can train.

Objective: Provide training and technical assistance:

CSW Network continues to be a catalyst for new projects and programs. It does so by providing training for teachers and informal educators; by designing professional development to build the capacity of school staff and other youth service providers to bring the CSWN curriculum to their students; by providing fiscal sponsorship to emerging organizations, as well as models for curricula, evaluation, accounting templates, and fundraising strategies. Those who receive support from the Network progress through a continuum of engagement, contract/agreement for CSW services, participation in professional development seminars, and documenting their progress towards establishing a site. When a site spins off and no longer uses CSWN services, instruments, or contributes data, an option does remain open for them to re-engage should there be a local transition in staff or a need for training or grant support. Jose Sandoval was hired starting January 1, 2017 as the CSWN Program Specialist. He was previously the director of the Watsonville ESW but has relocated to the Central Valley. His position has enabled the CSWN to reach out and offer additional professional development and technical assistance to sites and programs.

Greenfield CSW: This site received \$7,000 in program funds and \$1,724 in professional development funds directly from the CSW Network. Also \$11,000 in funds was processed through the CSWN from the Santa Cruz Community Foundation (Driscoll) and Packard Foundation for Greenfield. This funding helped close the gap for the site to provide for 700 parent visits and 6,300 youth visits over the last 10 months. The student population served is from Greenfield Union School District, as well as their families. Approximately 91% of the total population of Greenfield is of Hispanic/Latino origin and 87% speak a language other than English at home. The median family income in Greenfield is \$55,814, with a per capita income of \$14, 545 (Census 2010). Anecdotal reports indicate 25-30 students visit the CSW per day, but this site did not report attendance through the Network's system, therefore we are unable to determine the number of unique student visitors to the Greenfield CSW.

Funding from CSW Network was used to provide Fabiola López with 16 hours of external professional development opportunities that helped her get familiar with the CSW model of hands-on, experiential, student-centered, inquiry-based education. Additional on-site professional development (30 hours over 10 months) allowed her to enhance her scientific knowledge, her building and making skills, and her ability to manage and operate in a CSW-

type drop-in space. The site director of Greenfield, Jose S. Sanchez, is in his fifth year in this position and in his second term as a board member of the network. Although Jose officially works for the City of Greenfield, he continues to volunteer one hour a month to the network in the form of attending board meetings or assisting other staff across the state who want to learn about STEM education and the “how-to’s” of running a workshop. ESW’s major challenge is retaining staff. Annually, they have experienced turnover of the Teaching Assistant position. CSWN provides them with funding, curriculum and hiring support.

Watsonville ESW: This site received \$7,000 in program funds directly from the CSW Network, and \$2,500 in technical assistance. In addition, \$10,000 in funds from the Paul Newman Foundation was received and processed by the CSWN for program expenses of the Watsonville site. The Watsonville site operates daily drop-in programming from Tuesday – Saturday each week under the auspices of the Watsonville City Public Works Department and is well-funded by the City to provide program services. The CSW grant funding was used (1) to support the Watsonville staff time and effort to attend the 2017 Maker Faire in San Mateo held from May 19-21, 2017; and (2) to provide an interactive, hands-on exhibit for children and their families attending the Maker Faire. Former ESW Director, Jose Sandoval, provided technical assistance and support before and during the Faire, allowing for a smooth implementation over the months leading up to the Maker Faire and during the Maker Faire. His assistance coordinating this activity filled the gap while the vacant ESW director position was being filled. Funding covered the costs of hotel, travel, staff time, and materials. It was estimated that 2,000 children and parents were served over the weekend through hands-on projects facilitated by the nine ESW staff and Jose Sandoval.

Fresno – Highway City CSW: This site received \$7,000 in program funds directly from the CSW Network. The Highway City neighborhood is the primary source of students that attend the Fresno CSW program with about 65% Hispanic, 20% African American, 8% Asian, 5% Caucasian, and 2% other constituting the demographics of the community. Number of student visits for the year were reported as approximately 1,350 (numbers of unique student visits was not available. Fresno does only estimates of attendance and did not participate in the CSWN attendance program). The site also used \$2,980 of grant funds for professional development and \$617.20 for training equipment.

Sanger – Sanger CSW: This site received \$7,000 in program funds and \$1,964 in professional development funds directly from the CSW Network in 2016-17. In that period the Sanger CSW has registered more than 860 unique visits by children through the drop-in program amounting to more than 14,000 visits over 10 months. Demographics in Sanger include 85% Hispanic, 5% white, 5% Native American, 2% African American and 3% other. Most schools in the zone of influence of the Sanger CSW are 100% Free-Reduced Lunch program and range from 30-55% English Language Learners. The Sanger CSW free drop-in operates Tuesday – Friday from 2:00 p.m. to 5:30 p.m., and Saturday from 9:00 a.m. to 2:00 p.m.

Saturdays are open to the public on a drop-in basis and also include low-cost music and art. The daily attendance for the drop in does vary from day to day with highs in the 30s and regular attendance around 10-12 per day. The \$7,000 from the CSWN funded drop-in hours for about 40 days, or two months of program. Major revenue streams for the drop-in program have been grants from the City of Sanger through the Drug Intervention/Prevention program funded by sales taxes in the Measure S ballot measure. The Sanger CSW also runs camps during the summer with a total of 768 students participating over the last two summers in the 30-hour STEM camps or Coding and Robotics Camps (2016-17). The 2017 summer camps included trips to the coast as part of a \$49,750 Coastal Explorations grant that the Network helped to acquire from the Coastal Conservancy. The \$1,964 in professional development helped support the ongoing training of staff to participate in the Total Eclipse Workshop, Project WET Certification workshop, and Water education workshops.

San Francisco: This site received \$7,000 in program funds and \$1,964 in professional development funds directly from the CSW Network in 2016-17. In that period the San Francisco CSW used the funds to supplement fee-for-service costs for schools to send students to the CSW on field trips. Reports back to the CSWN indicate that professional development funds benefitted one CSW staff member in an area of personal development, as well as providing a rock/fossil workshop for all staff facilitated by Director Dan Sudran. The supplemented field trip costs were applied to thirty-two school trips to help offset the SFCSW cost of \$350 per field trip. The \$7000 was used to help subsidize thirty-two of the trips for the neediest schools. Each trip supported 30-32 students to engage with the CSW program located at Mission High School.

Site Update on Macro-Level: The demand for CSWN services remains high, with a waiting list of six school districts or programs and three libraries that want to establish workshops in their communities. CSW Network's definition of "member" has expanded over the last 12 months to include new and developing sites, classroom Maker programs, mobile workshops, and pop-up STEM rich classroom and library spaces. This evolution was necessary to accommodate and support educators who requested guidance, curriculum, kits, and training to implement the CSW model in their schools and communities. An especially high demand for parent workshops in Spanish and outreach work with migrant students continues to be a challenge, with CSW staff often doing the workshops for low cost to accommodate their limited budgets.

The point of entry for many educators is to visit our workshop in Sanger or Watsonville and/or attend one of our professional development seminars. In 2016-17, CSWN staff provided training to over 1,500 educators at the California Department of Education STEM Symposium, the National Science Teachers Association Los Angeles Conference, the 2017 Maker Summit held in San Francisco, Western Regional Noyce Conference in Fresno, and the California Science Teachers Association Conference in Palm Springs. CSWN has been

invited back to anchor the Makerspace at the STEM Symposium in San Francisco on December 10-12, 2017 and present at the NSTA regional in New Orleans and the annual Association of Science & Technology Centers in San Jose in October 2017.

New Sites:

In 2017-18, CSW Network sought out partnerships and collaborators to help expand its current projects in Del Rey, Dinuba, Orange Cove, and Parlier. As a result of our close work with youth and adults in CSW communities, staff play a major role in organizing local activities. This has resulted in the communities developing a trusting relationship with CSW staff, which in turn, we hope, will result in new programs and eventually sites. For example a teacher in San Francisco has partnered with the CSWN to create a garden-based Maker program and uses CSWN curriculum with her classes. She is also a Doner's Choose ambassador and became so interested in our programs she is now one of our Board members.

Friends of the Library – Watsonville began a contractual relationship with the CSWN to help design and run their Library STEAM program as a pilot in 2017. The program was so successful that the Library Director just renewed the contract with the Network CEO and is discussing with him the idea of an expansion plan to conduct 30 additional weekly sessions at the main library and possibly adding a second library to the program this fall.

Sanger has been the most active in developing satellite sites and sister sites for the CSWN. Here are some of the highlights:

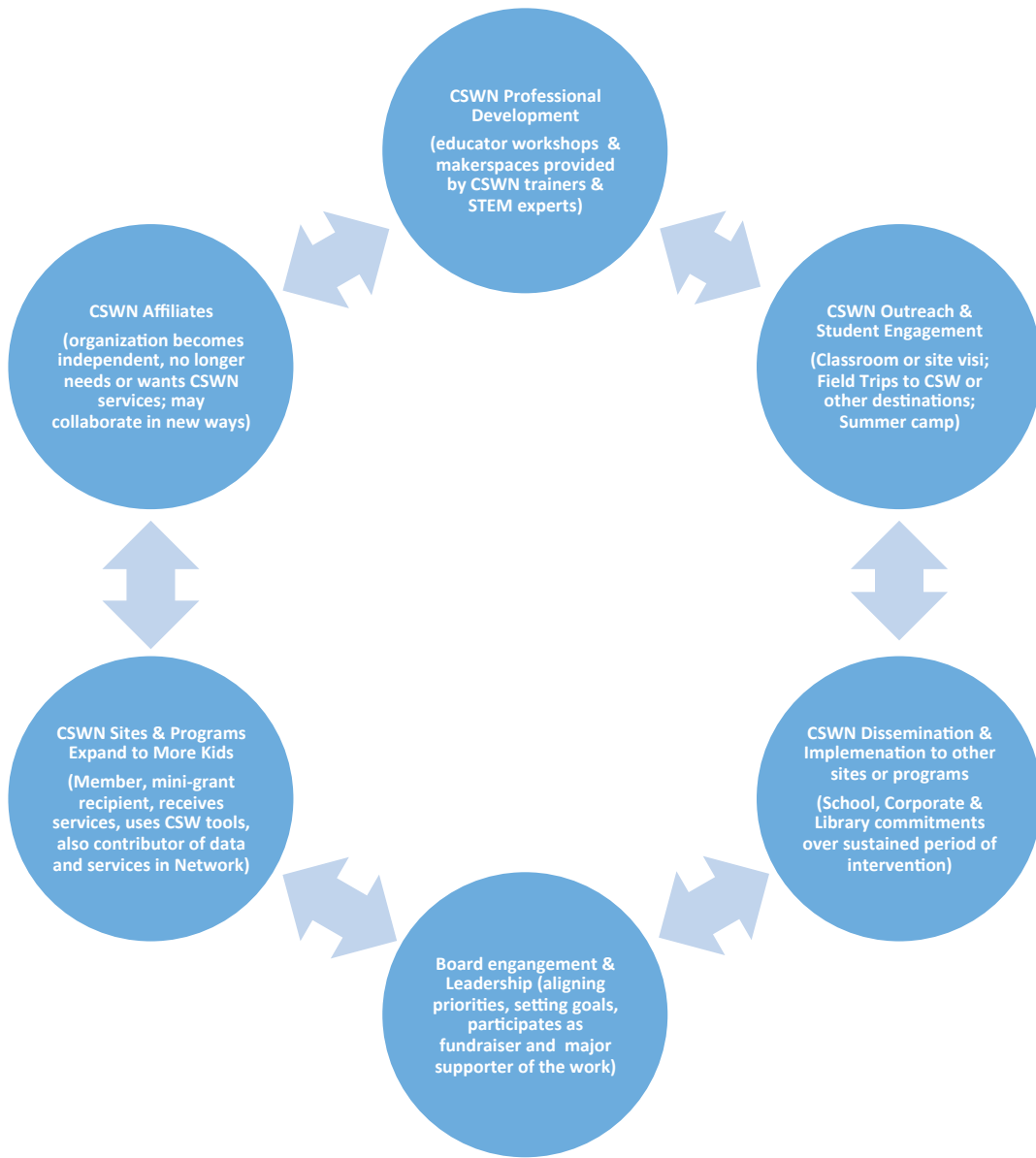
- Wilson Elementary gave the Sanger CSW space in Room 19 to convert into a CSW/Makerspace and began weekly visits by CSW staff with all grade 4 and 5 classes in the workshop. For 2017-18 the school principal, Ken Garcia, has approved moving into a larger space in the Library/Media Center to continue the program and expand to include parent workshops.
- *Dairyland School District* began as a Sanger contract to support STEM enrichment after school and has now requested CSW program district-wide. The districts' superintendent has received approval from his LCAP committee to use funds for developing a mobile CSW on a trailer conversion (\$50,000 allocation), and district wide professional development and the use of Sanger CSW kits in all classrooms (\$40,000 allocation). CSWN will partner with Sanger to deliver Professional Development and program start-up. This will become a dissemination model other schools or districts can emulate.
- *Del Rey* began as a Mobile CSW program in the city park (Fonseca Park) with funding from the Wonderful Company. The elementary school in Del Rey now wants to convert a classroom into a CSW/Makerspace similar to the Wilson Elementary CSW/Makerspace and support program for grades 5 and 6.

- *Parlier*, a rural district a few miles from Del Rey is planning the conversion of a classroom at their Junior High School into a CSW/Makerspace by the CSWN. The new robotics instructor is coming to the Sanger CSW for help in learning how to teach his class.

Member Site Spin-Off: Network Membership Change

In January 2017, board member and co-founder Dan Sudran retired from the CSW Network board. While he continues to lead the Mission Science Workshop in San Francisco, the site will no longer participate in a “member” status with the network. Dan Sudran is committed to sharing key resources of MSW--the whale, fossils, bones, and our work on a discovery-based curriculum in earth, physical, and life sciences that we and they are pioneering-- as they have for many years. However, they will no longer apply for grant funds or participate in a uniform evaluation and tracking system of student services and outcomes achieved. While the network was concerned about this evolution, there has been no negative activity in relation to this change in status. Meanwhile, MSW’s associate director continues to implement the financial and fundraising strategies fostered by CSWN, and ESW’s assistant program director utilizes CSWN’s lab safety protocols and project database to run programs. MSW and ESW may increase their engagement in the network in the future. At this time, MSW/ESW is an independent *Affiliate* of the network as demonstrated in *Figure 1*.

Figure 1: CSW Network Continuum of Engagement



Objective: Reporting and tracking services – student evaluation.

This year, a comprehensive evaluation system was co-developed by CSWN staff and Dr. Peter Ellis and Dr. Rex Green of Community Crime Prevention Associates (CCPA), based in Alameda, CA. Preliminary results of these 2016 surveys demonstrate a strong correlation with the CSW Instructional Model as a sound youth development strategy. Comparison data used by CCPA allows the sites using the validated student surveys as a quantitative measure to have a national comparison in terms of youth development growth with certain assets and agency specific goals. Surveys reviewed to date indicate a strong correlation with participation in CSW programs and improved self-efficacy and youth development assets related to improved school behaviors, improved interactions with adults, and improved liking of science and engineering activities and content. 100% of participating students indicate programs have achieved intended outcomes. 100% of participating youth showed increases vs. decrease in asset development.

Financial Management: At Your Nonprofit's Service continues to advise the Network on preparation and submission of its FY2016-17 taxes and annual audit. The Network completed an audit in 2015 and review in 2016 with Patricia Bechwidth, CPA, in Santa Cruz just as it had in 2013 and 2014. The board will continue to use Ms. Bechwidth for the annual audit and taxes in the future, as her rates are very reasonable for a nonprofit of CSWN's size. All of our financial files are held electronically and physically at AYNPS's offices in Alameda with a back up copy at the Network's new office in Sanger (PO Box 1307, Sanger, CA 93657). CEO Jerry Valadez has attended and completed Board and Financial workshops with the Central Valley Community Foundation and continues to work with BoardSource through online webinars and workshops. This has been identified as a challenge area for CSWN leadership as well.

New opportunities have also opened up because the CSW Network has met its fundraising goals this year. The budget and revenue goal was \$217,000 for FY16. New grants include: Measure S (Gang Intervention/Prevention) grant, Coastal Conservatory grant, and Friends of the Library in Watsonville, for a total of \$95,473 in new dollars.

FY18 also looks promising. **The new revenue goal is \$265,000 for FY 2018, of which \$200,000 has been identified/committed.** As programs increase, the staff needs support to continue raising funds. To close this gap and raise new funds to be able to make grants for drop-in across the state, CSW Network has contracted the services of a Resource Development Consultant, Maria Elena Riddle, former interim President of National Hispanic University, who started July 1, 2017.

Challenges

We last met with the Bechtel Foundation team in January 2016 at the beginning of the new EDs term. Although the ED did not stay this meeting proved very helpful and informative. Bechtel's input reminded us to focus on capacity building efforts that truly met the unique nature of our organization. The offer to provide an additional \$50,000 in support for a particular need would

allow CWSN to continue its focus on capacity building as a strategic investment. Should the foundation determine that we have satisfactorily met our goals based on this report and our financials, we would like to submit a request for an additional \$50,000 for capacity building. CSWN has demonstrated its organization resiliency as it has adapted to the changing needs of local sites and communities. The Network is also aware of areas of growth in which organizational capacity can be enhanced with your continued support:

- Executive coaching for the CEO. He has started working with BoardSource through the Central Valley Community Foundation but more time on task and targeted work is needed.
- Continue to strengthen the Board of Directors in its roles and responsibilities
- Planning and Execution: Strategic Planning – a new five-year plan is needed in 2018. This provides an opportunity for both new and existing board members to bring historical values, present challenges and future trends into the discussion and planning.
- Fund Development: Solidifying and expanding our revenue base through multiple funding strategies aligned with the updated strategic plan.
- Communications: The CSW Network website has been redesigned and now requires continuous updates and media exposure. The CSW Network story is a compelling one and we are looking for the best avenues to reach the community, policymakers, as well as potential collaborators and partners.

The Community Science Workshop Network has experienced a period of transition, as we grow, adapt, and maintain the standards of excellence that are required to reach and serve the children, youth and families living in economically impoverished communities; we are passionate in our efforts to include them in the opportunities that advances in the fields of Science, Technology, Engineering, and Mathematics, as well as the Arts represent for those who are aware, prepared, and who can self-identify with the confidence to seize those opportunities for a thriving future.

We thank the S.D. Bechtel Foundation and Steven Bechtel Fund for the support you have provided to us and look forward to your continued role as advisors and supporters in this work.

Appendices

- New Board Member Bios
- Financial Report
- Current organization-wide budget
- Audited financial statements for the most recent fiscal year

New Board Member Bios

Parker Thomas is the founder at Mirus Labs, STEAM Factory and Tashtego. He is a graduate of the College of Wooster. His is a founding board member of the Urban Montessori Charter School in Oakland. Since 2013, he has been the managing partner of MIRUS Labs, a studio that lives at the intersection of innovation, the maker movement and education. MIRUS partners with schools and other learning organizations to create spaces and experiences that encourage creativity, wonder and learning. Prior to MIRUS, Parker was the project manager for the National Makerspace Program at Maker Media/O'Reilly Media, Inc., based in Sebastopol, CA. He believes, "Making things develops the creative confidence and problem-solving skills people need to be successful in life. Jobs of today (and tomorrow) demand creativity and execution. The best way to learn and exercise these skills is simply to practice - by making things." Parker himself makes new products, companies, schools, workshops, airplanes, treehouses, zip lines, drones, boats, pens and lots of other things. He enjoys helping others figure out that they, too, have the power to shape the world around them.

Lisa Ernst is an educator with the San Francisco Unified School District. Lisa Ernst, a graduate of Brenau University is an educator at Alice Fong Yu K-8 Chinese Immersion School in San Francisco Unified School District. While teaching in San Francisco, she has added to her credential in the areas of Science where she holds a single subject credential in Science focusing on English Language Learners. As a classroom teacher for over twenty-four years, she teaches sixth grade in a multiple subject classroom with an emphasis on integration of content through project-based learning STEM or STEAM. Within the school year, Lisa was a Co-Developer with SFUSD, Stanford, and SERP, (Strategic Educational Research Partnership) with an emphasis on Science Literacy. During the summers and weekends, she continues to participate and enhance her knowledge in Earth Science through fellowships from the Department of Energy, Yale, to workshops from Chabot Space and Science Center, to the Exploratorium. Through the participation of various science programs, Lisa has developed curriculum that has become funded through grants and has been presented through various venues. In March of 2012, Lisa served as a Judge for the Disney Planet Challenge competition. As an active member of NSTA in 2011, she served as the Local Coordinator for Annual Conference in San Francisco. In 2010, Lisa was asked by NSTA to present and attend the SINO-US Science Conference in Shanghai, China where she shared instructional strategies that were designed within SERP. Lisa served on the Discovery Channel Science Techbook Advisory Board in Silver Springs, Maryland. She was recently awarded the Sylvia Shugrue Award by the NSTA in developing an integrated unit on "Building Bridges in Earthquake Country: from the Past to the Present." She was also nominated for the Presidential Award in Elementary Science along with the San Francisco Mayor Ed Lee's teacher awards. Along with the awards, Lisa has secured over \$17,500 worth of funded grants through Donors Choose.