



2017 ANNUAL REPORT



CRS

WWW.CRSCIENCE.ORG

COMMUNITY RESOURCES FOR SCIENCE

ESTABLISHED
1997



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ABOUT COMMUNITY RESOURCES FOR SCIENCE

OUR MISSION

The mission of CRS is to connect and engage educators, scientists, and students in a vibrant and innovative network of science and engineering learning resources, transforming science education.

CRS exists to increase opportunities for K-8 students, particularly in underserved communities, to learn about the natural and designed world through scientific and engineering explorations led by well-prepared teachers and enthusiastic STEM professionals. Our dynamic network includes a constellation of well-aligned community institutions and organizations. By fostering connections and communications, and through direct services and training, CRS brings about lasting changes in teacher practices, school cultures, scientist engagement, organizational collaboration, and in students' opportunities for inspiration and exposure to STEM learning experiences.



History: Two Decades of Impact

Since 1997, CRS has worked to help teachers give students more opportunities to “do science” – to ask questions, test ideas, get their hands on real science and engineering activities, and to make meaning from those experiences.

In early 2017, CRS reached the milestone of 20 years of service in the East Bay. Our celebration event honored some of the excellent teachers, exemplary scientist volunteers, and extraordinary partners who represent the essential elements of our dynamic science education network. More than 110,000 young students have engaged with enthusiastic scientists and engineers over those years, in the classrooms of thousands of teachers. While not all those students have or will become rocket scientists or molecular biologists, we endeavor to ensure they all have opportunities to discover their own talents and potential, and grow into critical thinkers, stewards of the environment, leaders, and responsible citizens.



MESSAGE FROM CRS LEADERSHIP

In 2017, Community Resources for Science once again served a record number of teachers, schools and students; built new partnerships and nurtured ongoing ones; raised the financial resources needed to sustain and grow our organization; and ensured that thousands of young students had first-hand experiences in investigation, critical thinking, and discovery.

At the end of each school year, we compile a program evaluation report detailing the services provided, the feedback received, and the measurable impact on science teaching and learning. Over the course of our 20 years of service, these annual outcomes have built a strong foundation, amplifying impact beyond a single school year and moving steadily toward the long-term transformation in teaching and learning that CRS and our partners are working toward.

Reflecting on 2017, and the foundation of our first two decades of service, we are grateful for the partners and funders who have helped CRS achieve the following:

As a result of CRS support and programs, teachers we serve report they are more informed, skilled, motivated, and successful in increasing both the quantity and the quality of science learning experiences for students in their classrooms. Their students are engaged, curious, and inspired.

As a result of CRS collaboration with a network of over 200 science education organizations, informal education institutions, science centers, and academic research

programs, the teachers we serve have access to, and timely information about, resources for professional growth and classroom teaching.

As a result of CRS training and support, scientists and engineers are well-prepared and confident as they head into classrooms to lead young learners.

As a result of CRS mobilization and placement of well-prepared STEM professionals in East Bay classrooms, thousands of students have opportunities to meet enthusiastic, diverse, inspirational role models.

We look forward to continuing to extend and strengthen our network in the coming years. We deeply appreciate the thoughtful financial support from corporate and philanthropic foundations and individual donors who make it possible for CRS to receive feedback like this:

CRS is an extraordinary organization. They have the most comprehensive information available for science PD classes, science grants, and science field trips in the greater Bay Area. They have helped me find and refine curriculum. They have provided PD to introduce our staff to new science standards. They have arranged wonderful BASIS classes that have taken our science instruction to a new level--in my class, we've analyzed forest fires, studied polymers, and built 4 story structures to withstand strong earthquakes. Every time I look at their newsletter or email, I learn more of what they provide. There is no other organization like CRS!

–4th Grade Teacher, Oakland Unified School District



Teresa Barnett
Executive Director



Phoebe White
Outgoing Board President



Diana Velez
Incoming Board President

ADDRESSING CRITICAL CHALLENGES

Science is too often missing from elementary schools.

ONLY
10%

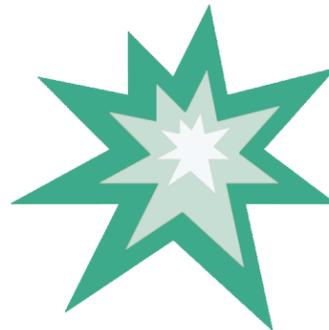
of California elementary school students had regular access to high quality science learning opportunities in 2011. Many CRS member schools have been increasing time spent on science, but the vast majority of Bay Area elementary students still get less than 1 hour per week of science.



STEM exposure in early grades is critical.

OVER
80%

of scientists and engineers say their interest was sparked by learning experiences by age 12 (K-6 years!). The absence of science in school perpetuates inequity and contributes to a widening opportunity gap for underrepresented students.



Teachers need training, partners, and support to teach science well.

ONLY
15%

of teachers reported receiving any science training from their school districts. Most do not feel well prepared to teach science. Yet, they are eager to learn: 84% of teachers want more opportunities to collaborate with STEM professionals.



COMPREHENSIVE, RESEARCH-BASED APPROACH

CRS addresses well-documented needs: a lack of science instruction in elementary schools; a lack of science role models and real world connections for low-income, under represented minority, and English language learning students; and lack of ongoing training and support for elementary teachers. Unaddressed, these needs conspire to deny critical early exposure to high-quality science learning experiences to students at the developmental stage at which research indicates they can have the most lasting impact. Adoption of new statewide science standards that emphasize student engagement in authentic science and engineering practices has intensified the need for long-term, comprehensive teacher support. STEM professionals can be powerful partners in bringing science and engineering knowledge and critical thinking into classrooms as they lead high-quality lessons. To be successful, they need training to ensure investigations are grade-level appropriate and align with standards. Scientists also need coaching in developing effective strategies for engaging young learners and communicating complex scientific concepts.

Our research-based approach provides a comprehensive array of services, information and training proven to increase teacher knowledge, skills, confidence, and enthusiasm for teaching science. We help elementary teachers find information and connect with resources, and provide personalized support. We carefully prepare scientist and engineer volunteers to ensure they are confident, and that their lessons are well-designed and effectively led.



TRANSFORMING SCIENCE TEACHING & LEARNING

2017 PROGRAM SERVICE HIGHLIGHTS

1,700+
K-6 TEACHERS
SUPPORTED



600+
SCIENTISTS &
ENGINEERS
ENGAGED



MORE SCIENCE
LEARNING FOR
40,000
STUDENTS



15,500+
KIDS MEET STEM
ROLE MODELS

200+
SCIENCE
PARTNERS
CONNECTED

CONNECTING A NETWORK FOR IMPACT

What sets CRS apart from other science education organizations is our deeply ingrained network approach. CRS facilitates connections among a constellation of people and organizations working to strengthen science learning opportunities for young students. We convene, engage, and support a dynamic network of collaborative classroom educators, school leaders, science centers, education organizations, scientists and engineers, university and business partners, funders, and resource partners.

CRS has also developed a unique expertise in effective mobilization and preparation of STEM professionals for communicating about science and engineering with students and educators. We support university-based researchers and private industry employees, ensuring scientists and engineers can efficiently and effectively bring their enthusiasm and STEM knowledge into local classrooms with confidence and joy.

Taken together, our programs and services provide innovative, contextualized support which combines comprehensive online resources, timely information, training, and customized consultation with a commitment to establishing long-term relationships with teachers, schools, and districts.

Teachers and partners describe CRS as: collaborative, flexible, knowledgeable, innovative, respected, effective, and equity-focused.



INSPIRING STUDENTS



75%
OF SCHOOLS
SERVED ARE
TITLE 1*

*An indicator of serving a high percentage of low-income students

“Having volunteers who are actually in the field of science helped my students see that is something they can do when they grow up as well.”

—5th Grade Teacher, Oakland Unified School District

EMPOWERING TEACHERS

“I never ignore an email or newsletter from CRS because it always has something useful: a potential field trip, a potential grant, or a class visit from scientists!”

—West Contra Costa Unified School District Teacher



In teacher training and support, one size does not fit all. At the heart of the CRS approach to serving teachers is our focus on personalization and customization, finding information and designing solutions for individual teachers, schools, and districts to empower them to take their science teaching and learning to the next level.

In 2017, one example of this approach in action is our continued expansion into more schools in West Contra Costa Unified School District where we embarked on a new professional development collaboration in Richmond elementary schools. Called BEST (Building Elementary Science Teaching in Richmond), the collaboration involves nearly 100 teachers across four Richmond elementary schools serving low-income and English language learning students. Together with the Berkeley Science Project at the Lawrence Hall of Science, and the UC Natural History Museums, CRS is providing multiple professional development workshops, in addition to membership services (including BASIS in-class presentations).

At the outset of the collaboration, BEST Richmond teachers said their goals for the year included learning how to increase hands-on science, student inquiry, and time spent on science. Most indicated a desire to incorporate and implement new NGSS standards, have more field trips, access more materials for labs, and engage students in meaning making. Following the first workshop, teachers said the session provided them with inspiration, ideas for hands on lessons, practical ideas/lessons to take to class, an introduction to standards, and confirmation that language arts are strengthened through science.

MOBILIZING STEM PROFESSIONALS

Children are natural scientists who delight in testing their ideas, thinking critically, collaborating and communicating with their peers as they discover how the natural world works. When “real” scientists and engineers walk into their classrooms, the visitors get “rock-star” treatment! Behind the scenes, a lot goes into recruiting, training, and deploying volunteers in order to ensure a successful, productive, and inspiring experience for everyone.

Over the past 20 years, CRS has refined our expertise in engaging and preparing scientists and engineers in effective teaching and communicating complex concepts in a relatable manner. In 2017, more than 600 STEM professionals participated in our education outreach efforts. About 85% of our volunteers are graduate students and researchers at UC Berkeley; the balance come from private industry partners including Clorox, Bayer, Clif Bar, and the Port of Oakland.

Our flagship programs, Bay Area Scientists in Schools and Be a Scientist, train and place volunteers in classrooms. STEM volunteers also share science activities at school and community festivals, science fairs, and farmers markets. These volunteers inspire young students to imagine their own futures as scientists or engineers. Seeing how engaged their students are in science also motivates teachers to increase STEM learning in their classrooms, amplifying the impact of in-class visits. Our training includes coaching scientists to share their own personal stories, introducing themselves, how they got interested in science, what they do in their labs or field work, and what questions they are exploring.

Scientists and engineers also engage with teachers during many of our teacher professional development workshops. Sharing information about cutting edge research, helping to dispel misperceptions in their field, and engaging teachers themselves in investigations and explorations, these scientists are powerful partners for teachers.

Engaging STEM professionals is not only a “win” for teachers and students – it also benefits the volunteers. They value the opportunity for skills-based community service, while strengthening their own communication skills, learning more about teaching, rekindling their own passion for science, and having fun!

600+

Scientist & engineer volunteers

1,500

Hours of in-class 7th grade mentoring

15,500+

Students interact with STEM role models



“Volunteering for BASIS is an empowering experience because it allows me to break down the stereotypes of people in STEM and share the magic of science with young, growing minds.”

—BASIS Volunteer

BASIS

Bay Area Scientists in Schools (BASIS) prepares and connects scientists and engineers with K-6 classrooms throughout the East Bay to get students excited about science, break down stereotypes, and promote diversity in STEM. BASIS volunteers lead engaging, hands-on, inquiry-based, standards-aligned science and engineering lessons in classrooms. Through BASIS interactions, young students discover the relevancy, accessibility, and fun of science. They provide “real world” connections for concepts students explore in class. BASIS creates lasting impact by supporting student curiosity, inspiring classroom teachers, and engaging diverse, enthusiastic STEM role models in science outreach and communication.

In 2017, BASIS teams visited more than 500 classrooms and engaged 15,000 young students – and their teachers – in investigation, exploration, and discovery.

Be a Scientist

Be a Scientist (BAS) is a 6-week science investigation program designed to provide equal access for all Berkeley 7th grade students to meaningful science learning experiences with practicing scientist and engineer mentors from UC Berkeley. Students, with the help of their mentors, design, conduct, and present findings from their own science or engineering investigation. Students learn how to disseminate their results and develop presentation and public speaking skills by presenting their projects to classmates, other mentors, and to the larger school community.

In 2017, each of the 127 mentors guided a group of 4-6 students, providing many hours of individual attention, impacting learning for over 700 7th grade students.

ENGAGING COMMUNITY SUPPORT

2017 FOUNDATION AND CORPORATE FUNDERS

Joseph and Vera Long Foundation	Wareham Development
Arthur Rock Foundation	In Dulci Jubilo, Inc.
Berkeley Public Schools Fund	Joseph and Mercedes McMicking Foundation
Encore Fellowships Network	Grifols
Walter & Elise Haas Fund	Port of Oakland*
Bayer*	Goggio Family Foundation
Dean and Margaret Lesher Foundation	PG&E
Dean Witter Foundation	The Lowell Berry Foundation
Irene S. Scully Family Foundation	Kinder Morgan Foundation
Cisco Systems Foundation	Bernard E. and Alba Witkin Charitable Foundation
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Richmond Community Foundation	UC Berkeley College of Chemistry*
UC Berkeley Chancellor's Community Partnership Fund	UC Department of Integrative Biology
East Bay Community Foundation	Delta Educational*
VWR Foundation	*Indicates additional support as sponsors of CRS 20 Year Celebration
Mary A. Crocker Trust	

IN KIND AND PRO-BONO SUPPORT

Business in-kind donors and sponsors are listed on our website: www.crs-science.org/about/funderspartners

Taproot Foundation, Annual Report Redesign Grant

Thank you to the project team: Stan Baldwin, Martha Wheelock, Jill Morrison, and Sarena Shapiro for CRS Annual Report template

FINANCES

STATEMENT OF FINANCIAL POSITION, DECEMBER 31, 2017

Assets

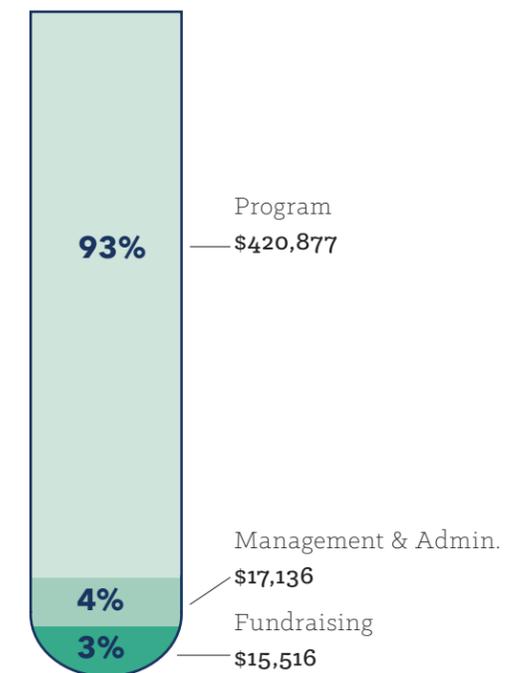
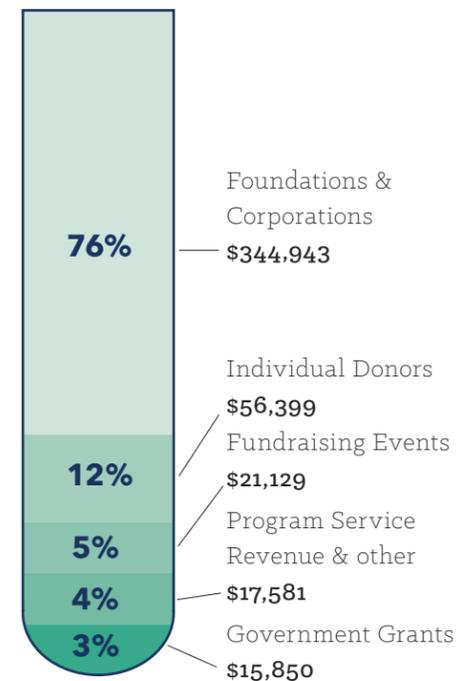
Checking and Savings	\$135,135
Other current assets	\$2,780
TOTAL ASSETS	\$137,915

Liabilities & Equity

Liabilities	
Accounts Payable	\$9,554
Credit Cards	\$135
Accrued Vacation	\$8,806
Total liabilities	\$18,495
Equity	
Unrestricted assets	\$42,064
Retained earnings	\$74,983
Net income	\$2,373
Total Equity	\$119,420
TOTAL LIABILITIES & EQUITY	\$137,915

2017 INCOME: \$455,902

2017 EXPENSES: \$453,529



CRS TEAM & LEADERSHIP

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Teresa Barnett, *CRS Executive Director*

Corinn Brown, *Teacher Services Manager*

Traci Grzymala, *Senior Program Manager for Volunteer Recruitment and Education Outreach*

Tyler Chuck, *Communications Manager*

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Stefanie Garcia, *Program Assistant*

Darlene Yan, *Project Coordinator*

Betsy Mitchell, *Project Coordinator*

Erin Creel, *Campus Coordinator*



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UC Museum of Paleontology

*Thank you to those additional Advisory Council Members
not listed, whose terms ended during 2017*

