



# 2019 ANNUAL REPORT



**CRS**

[WWW.CRSCIENCE.ORG](http://WWW.CRSCIENCE.ORG)

COMMUNITY RESOURCES FOR SCIENCE

ESTABLISHED  
**1997**

## **Community Resources for Science**

*Empowering teachers and scientists to  
engage & inspire young learners*

**1611 San Pablo Ave., Suite 10 B  
Berkeley, CA 94702  
(510) 527-5212**

**For more information, email us at  
[community@crscience.org](mailto:community@crscience.org)**



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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 increases 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, providing timely information, and collaborating directly with educators, CRS brings about lasting changes in teacher practices, school cultures, scientist engagement, and organizational collaboration. As a result, more students engage in exploration and discovery, and experience wonder and inspiration.



## Two Decades of Impact

Since 1997, CRS has worked to empower teachers and STEM professionals to 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.

Because STEM literacy is a pathway to the future, we believe every young learner deserves opportunities to discover their own talents and potential, in order to grow into leaders, innovators, critical thinkers, problem solvers and stewards of the environment. Our role in the Bay Area STEM education ecosystem is unique: we facilitate collaboration, distribute timely information, provide long-term support and partnership that is customized to individual teacher, school, and district needs, and we are well-respected by our peers, partners, and the educators we serve.

***" Thank you for all that you do! The resources that CRS provides enrich our science lessons, and ultimately are propelling us towards equity in education!"***

– Richmond Teacher

**ESTABLISHED**  
**1997**

## MESSAGE FROM CRS LEADERSHIP

***"Science is a subject where all of my students are able to thrive and feel safe and it is great to have you all a part of it." —Oakland Teacher***

You've seen the images:

- A phenomenal soccer player scores a winning goal on the international stage, and she takes a triumphant pose seen round the world.
- A football player scores the winning touchdown and does a happy dance.
- A basketball player makes a flying dunk and lands with muscles flexed in celebration.

Imagine:

- A 2nd grade teacher adopting the same triumphant pose after a fidgety student successfully uses the data she's collected about temperatures around the school yard to determine the best location for a new school garden.
- A fourth grade teacher spikes the whiteboard eraser in celebration of a group of students successfully sketching a model that explains the interdependence of plants and animals in a specific ecosystem.
- A seventh grade teacher flexing her muscles after a group of students successfully makes a presentation to the school board with recommendations for steps the district can take to reduce it's carbon footprint AND save money by adopting specific energy saving measures.

Teachers, as a bunch, don't often get the chance for big displays to celebrate their accomplishments in moving their students to greater understanding of and engagement in their world. But, if they did, we'd see fireworks every day!

CRS is dedicated to supporting, and celebrating, the heroic teachers who are determined to ensure children, particularly in under-served communities, have access to science and engineering lessons that allow them to wonder, explore and discover. Students of today will need strong scientific literacy for the jobs and civic duties of their future; it is critical for equity and social justice that science role models and learning experiences reach all children from the earliest years.

We share with you, our donors and supporters, the many heartfelt expressions of appreciation and descriptions of impact like this that we receive from teachers throughout the year.

***"Teacher confidence is the most important element in determining how much and how effectively the teacher will teach a given subject area. The varied supports CRS provides, including introductions to field trip possibilities through the Field Trip for Teachers program, BASIS lessons, lesson planning and help in finding resources, all increase teacher confidence in their ability to teach science. The Science Super Star program takes this a step further by challenging teachers to take their new pedagogical knowledge and push it just a bit outside their comfort zones, then reflect on how it impacted student achievement throughout the curriculum. My science program in my TK classroom has improved immensely both in quality and in quantity since I started receiving CRS supports many years ago."***



**Teresa Barnett**  
Executive Director



**Diana Velez**  
Board President

## ADDRESSING CRITICAL CHALLENGES

Science is too often missing from elementary schools.

**ONLY**  
**10%**

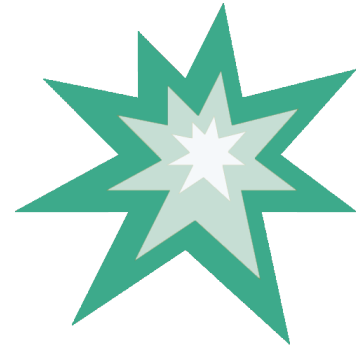
of California elementary school students had regular access to high quality science learning opportunities in 2011. Many CRS member schools have been increasing time spent on science, but the vast majority of Bay Area elementary students still get less than 1 hour per week of science. Across California, 4th graders get on average 22 minutes of science per week.



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.



# TRANSFORMING SCIENCE TEACHING & LEARNING

## 2019 PROGRAM SERVICE HIGHLIGHTS

**1,750+**  
K-6 TEACHERS  
SUPPORTED



**700+**  
SCIENTISTS &  
ENGINEERS  
ENGAGED



MORE SCIENCE  
LEARNING FOR  
**43,000**  
STUDENTS



**16,500+**  
KIDS MEET STEM  
ROLE MODELS

**200+**  
SCIENCE  
PARTNERS  
CONNECTED

## 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. Left 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 this work. CRS has 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 for teachers, combining comprehensive online resources, timely information, training, and customized consultation with a commitment to establishing long-term relationships with teachers, schools, and districts.





## CONNECTING A NETWORK FOR IMPACT

What sets CRS apart from other science education organizations is our deeply ingrained network approach. Through our Advisory Council, professional development collaborations, Field Trip for Teacher events, and other programs, CRS convenes and engages a dynamic and responsive network. CRS facilitates connections among a constellation of K-8 classroom educators, school leaders, science centers, education organizations, scientists and engineers, university and business partners, funders, and resource partners, all working together to expand opportunities for science learning and inspiration for young students

CRS is also an active member of regional, statewide, and national networks, partnering with others to leverage our strengths toward the shared goal of increasing STEM access and opportunities for children. Regionally, CRS has long been a longtime member of the Steering Committee of the Gateways East Bay STEM network through Cal State East Bay's Institute for STEM Education, which has catalyzed business support for strong STEM education policies and programs. CRS serves on the K-8 team of the Alignment Bay Area STEM Equity collaboration, and is active in state and national STEM networks including the California STEM Network, 100Kin10, and Change the Equation. Together, these efforts contribute to providing pathways to brighter futures for tens of thousands of disadvantaged East Bay students.

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

**CRS celebrates the dedication of teachers who work to ensure their students have access to inquiry, investigation, and inspiration through our Science Super Star Challenge.**



## INSPIRING STUDENTS



**75%**  
OF SCHOOLS  
SERVED ARE  
TITLE 1\*

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

*“It is incredibly important that our students get quality science lessons. The impact will be felt for years to come in so many ways - personal health and well being, meeting the needs of industry for a well-trained workforce, the future of the Earth itself. But it requires an incredible amount of training and time to teach science well and it is in tight competition with other subject matter in classrooms. It is imperative that we get outside support.”*

—WCCUSD Teacher

## EMPOWERING TEACHERS

*“CRS support and training has made me a better science teacher. Before CRS I regretted teaching science because I didn't feel comfortable with the subject. Since CRS has been a part of our district, I really enjoy teaching science and seeing the kids work hands-on with the FOSS Kit and other things that I have learned through CRS. I feel like a science teacher now!”*

—Richmond 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. **Two exciting examples of this work in 2018 included:**

- **Keeping Students Engaged in Science** in collaboration with Oakland Unified School District, CRS engaged a dozen UC scientists to provide summer intensive in-field learning experiences and science lesson planning support for Oakland 4th through 8th grade teachers. Scientists and teachers developed lessons together, and scientists visited classrooms to lead aspects of the student learning across issues ranging from air pollution, chemical reactions, and genetics.
- **Activating Wonder through Elementary Science** professional learning sessions and teacher support for Richmond elementary teachers. Series included an intensive Physical Science workshop led by a dozen postdoc researchers from Lawrence Berkeley Lab, who engaged teachers in activities and lesson plans to explore energy, light waves, forces and motion, and properties of matter. CRS provides teachers with ongoing support to implement the learning in classroom lessons.

*“Thank you so much for giving our students the opportunity to study with local scientists! It left a strong impression on the students, and many of them left school thinking about what they would want to study in the future!”*

## MOBILIZING SCIENCE 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 2019, more than 700 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, Amyris, and the Port of Oakland. They bring diversity, expertise, enthusiasm, inspiration, and JOY into classrooms throughout the East Bay.

Engaging scientists and engineers has a three-fold impact:

- These volunteers inspire young students to imagine their own futures as scientists or engineers as they use STEM practices to figure out the answers to questions about the natural world.
- 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. 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.
- STEM professionals value the opportunity for community service which also allows them to strengthen their own science communication skills and nurturing their own passion for science as they see the sparks of wonder and amazement on the faces of young learners.

*“The kids are so excited to participate in the lesson, to understand, to ask questions! It is amazing to see their enthusiasm and the sense of wonder on their faces when they finally figure something out!”*

—BASIS Volunteer





*“I was very impressed with how positive, encouraging, respectful, and engaging the scientists were. My students had a lot of fun and learned a lot. Being able to observe my students engaging with content, having scientific conversations, and interacting with the volunteers was truly incredibly helpful for my teaching practice. Thank you SO much!!”*

—WCCUSD Teacher

## 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 disseminate their results through presentations to their classmates, mentors, and to the larger school community.

***“I witnessed a student struggle with the logistics of an ambitious experiment to examine which materials would most rapidly conduct heat. With the help of their mentor, they were able to make needed revisions to their procedure and collect very precise data. I saw the student's confidence visibly grow - and this confidence has extended to their next, even more ambitious project. I feel privileged to watch a young scientist in the making.”***

—7th Grade Teacher

## 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 2019, BASIS teams visited more than 500 classrooms and engaged 16,000 young students – and their teachers – in investigation, exploration, and discovery.

4	3	9	2	1	10	6	5	8	7
Acrylic	Pine	Nylon	Rosewood	Acrylic	PVC	Aluminum	Steel	Brass	Copper

## ENGAGING COMMUNITY SUPPORT

### 2019 FOUNDATION AND CORPORATE FUNDERS

Irene S. Scully Family Foundation  
Berkeley Public Schools Fund  
Clorox Company Foundation  
The Crescent Porter Hale Foundation  
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KLA Foundation  
Port of Oakland  
The Barrios Trust

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Grifols  
Aduro Biotech  
Ruth Stroup, Farmers Insurance  
Overaa Construction  
Seyfarth Shaw Charitable Foundation  
Kars 4 Kids  
Caribou Biosciences

*Thank you to these employers who matched contributions from employees in 2019: Apple, Wells Fargo, Clorox Company, Clif Bar, Bank of America, Wareham Development*

### IN KIND SUPPORT

Oakland Athletics  
East Bay Regional Parks  
Chabot Space and Science  
Clif Family Winery  
Lagunitas Brewing Co.  
Drakes Brewing Co.

Full list of business in-kind donors and sponsors are on our website: [www.crsce.org/about/funderspartners](http://www.crsce.org/about/funderspartners)

### INDIVIDUAL DONORS

CRS Board Members and individual donors contributed more than 15% of CRS organization operating budget.



# FINANCES

## STATEMENT OF FINANCIAL POSITION, DECEMBER 31, 2019

### Assets

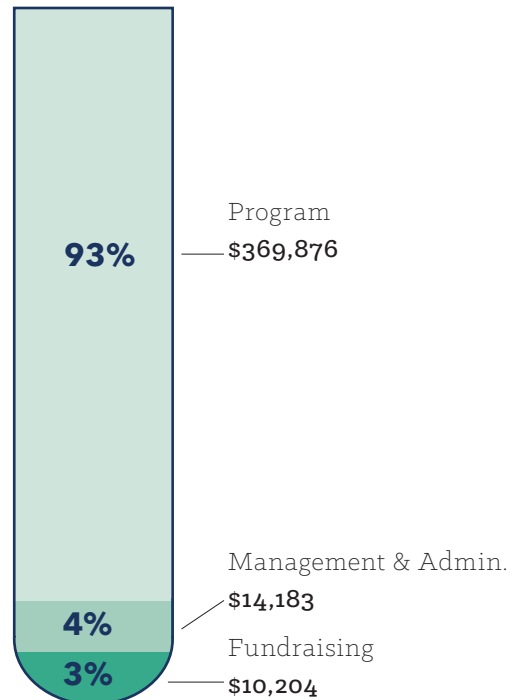
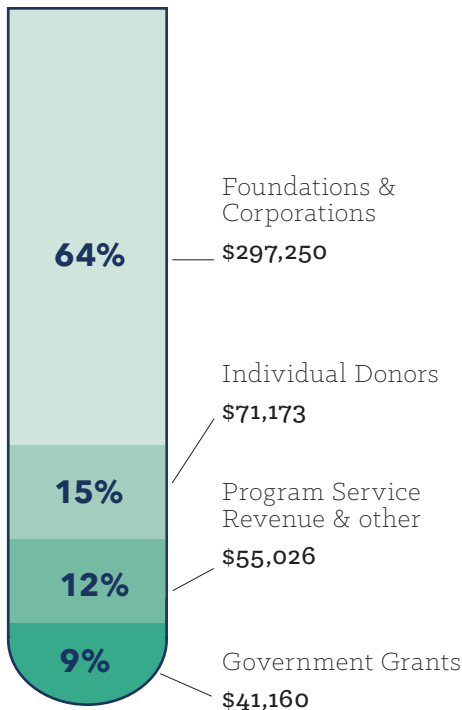
Checking and Savings	\$139,728
Other current assets	\$4,157
<b>TOTAL ASSETS</b>	<b>\$143,885</b>

### Liabilities & Equity

<b>Liabilities</b>	
Accounts Payable	\$9,421
Credit Cards	\$2,241
Other Current Liabilities	\$8,261
<b>Total liabilities</b>	<b>\$19,923</b>
<b>Equity</b>	
Unrestricted assets	\$42,064
Retained earnings	\$11,552
Net income	\$70,346
<b>Total Equity</b>	<b>\$123,962</b>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>\$143,885</b>

2019 INCOME: \$464,609

2019 EXPENSES: \$394,263



## CRS TEAM & LEADERSHIP

### STAFF

**Teresa Barnett**, *CRS Executive Director*

**Corinn Brown**, *Teacher Services Manager*

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**Tuesday Simmons**, *Campus Coordinator*

**Betsy Mitchell**, *Project Coordinator*

**Darlene Yan**, *Project Coordinator*

**Harmani Sethi**, *Program Assistant*

**Anais Namahoro**, *Program Assistant*

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**Luis Valentin-Alvarado**, *Be a Scientist Program Assistant*

**Denise Abersold**, *Professional Development*



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Co-founder, Community Resources for Science

*Thank you to Susan Kattchee and Lisa Wahl, who recently completed their terms as CRS Board Members*



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*Thank you to those additional Advisory Council Members not listed, whose terms ended during 2019*

