



# 2018 ANNUAL REPORT



**CRS**

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

***"CRS is an amazing organization. It has helped my students have a deeper understanding of science concepts, and it has helped me grow as a professional each year. Thank you!" – Oakland Teacher***

**ESTABLISHED**  
**1997**

## MESSAGE FROM CRS LEADERSHIP

***"Science is so critical to the future of our students and our society, yet schools rarely give it the attention reading, writing, and math get. It is essential that those outside the school system continue to offer their expertise, support, and advocacy for science instruction." —WCCUSD Teacher***

These words of appreciation that we received in 2018 from a teacher in the Community Resources for Science network echo the feedback we have received from thousands of East Bay elementary teachers over the past two decades.

In 2018, new statewide tests based on new, ambitious standards brought increased attention to the need for teacher training and stronger student learning opportunities in science and engineering. Yet, funding shortages and other challenges meant that teachers and schools have been more in need of our partnership, advice, and support than ever.

Fortunately, CRS has been well-positioned to build on our unique experience as a long-term partner, meeting individual teachers, schools, and entire districts at their current level of need and helping them set and achieve goals for science teaching and learning. Our customizable, collaborative approach continues to both "raise the bar" for elementary science excellence, and consistently support our teacher members in meeting and exceeding their goals.



**Teresa Barnett**  
Executive Director

We believe learning should be joyful and meaningful. Science and engineering learning experiences are future-focused, allowing students to ask questions and solve problems related to their daily lives. To bring those experiences to life for thousands of children in 2018, we successfully prepared and placed record numbers of scientists and engineers into classrooms as powerful partners engaging young learners in authentic STEM practices.

As one among a constellation of organizations working to strengthen science teaching and learning in the Bay Area, we are grateful for the partners and collaborators who join us in this important work empowering teachers and fostering curiosity and discovery for young students. The CRS team and Board deeply appreciate the thoughtful financial support we receive from corporate, university, and philanthropic foundations and individual donors. We share with you the many heartfelt expressions of gratitude, like this, that we receive from teachers throughout the year:

***"I deeply appreciate the support CRS provides in order to enable teachers to give this vital and enriching experience to students. In order to adapt in our continually evolving world, all citizens must be scientifically literate." — Berkeley Teacher***



**Diana Velez**  
Board President

## ADDRESSING CRITICAL CHALLENGES

Science is too often missing from elementary schools.

**ONLY**  
**10%**

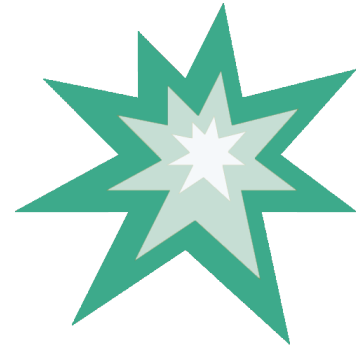
of California elementary school students had regular access to high quality science learning opportunities in 2011. Many CRS member schools have been increasing time spent on science, but the vast majority of Bay Area elementary students still get less than 1 hour per week of science.



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

## 2018 PROGRAM SERVICE HIGHLIGHTS

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



**650+**  
SCIENTISTS &  
ENGINEERS  
ENGAGED



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



**16,500+**  
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

*“This was a WONDERFUL experience for my students to talk to real scientists and they were beyond thrilled! I am always amazed how the BASIS visits energize my class. My students are made to feel safe to explore and learn because the scientists make them feel so comfortable and confident.”*

—5th Grade Teacher

## EMPOWERING TEACHERS

*“I always assumed I couldn’t do outdoor learning with my students because we do not have a verdant campus. I’m excited to learn about the many ways I can take my students outside to explore phenomena and learn about the natural world, even on our urban, asphalt schoolyard. This was so eye-opening and inspiring!”*

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

- **Facilitating professional collaboration among Berkeley’s elementary science specialists** to integrate the practice of observational science sketching into their teaching. In addition to deepening their own skills and confidence, we supported the development of lesson resources and easy-to-use guides to accompany new specimen sets (feathers, shells, seeds, insects, skulls, rocks, and more!) to be available for elementary teachers across the district.
- **Collaborating with the UC Natural History Museums and Berkeley Science Project at the Lawrence Hall of Science**, hosting nearly 30 Richmond elementary teachers for an intensive summer week of exploration and learning alongside UC life sciences researchers. After a week of hunting for bugs, exploring plants and waterways, conducting field research, dissecting owl pellets, and more, the teachers left invigorated, inspired, and motivated to bring more science learning into their classrooms. At the close of the session, more than one teacher said:

*“This was most useful professional development I’ve ever had! I can’t wait to get back to the classroom and share what I’ve learned with my students.”*

## 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 2018, more than 650 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. 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.

*“As a mentor, I get to see kids experience the joy of discovery, which reminds me that I love what I do. I am so lucky to be a scientist.”*

—BASIS Volunteer





*“Children have such creative answers and approaches to a problems, it gives me hope for the future and shows how important it is to get them thinking about active problem-solving at a young age. I try to bring some of their lateral thinking back to the lab with me, too!”*

*—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.

## 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.

## ENGAGING COMMUNITY SUPPORT

### 2018 FOUNDATION AND CORPORATE FUNDERS

Arthur Rock Foundation  
Berkeley Public Schools Fund  
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Kinder Morgan Foundation  
Bernard E. and Alba Witkin Charitable Foundation  
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Seyfarth Shaw Charitable Foundation  
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#### **Employer Matching Funds**

Apple  
Wells Fargo  
Clorox Company  
Clif Bar  
Bank of America

### IN KIND AND PRO-BONO SUPPORT

Business in-kind donors and sponsors are listed 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 10% of CRS organization operating budget.



# FINANCES

## STATEMENT OF FINANCIAL POSITION, DECEMBER 31, 2018

### Assets

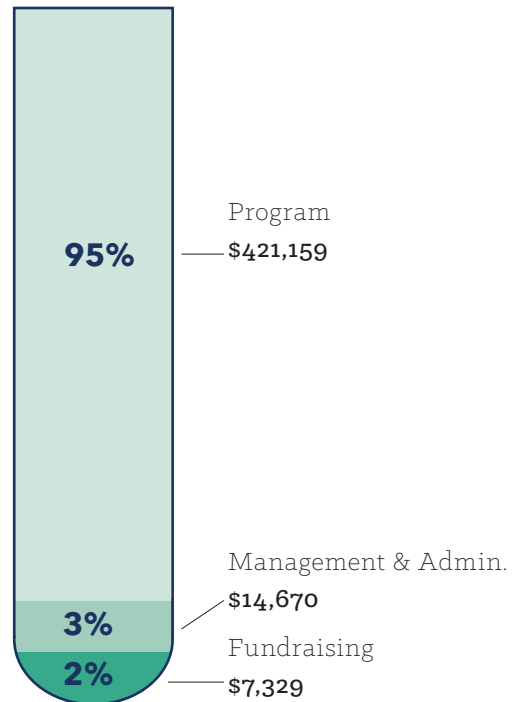
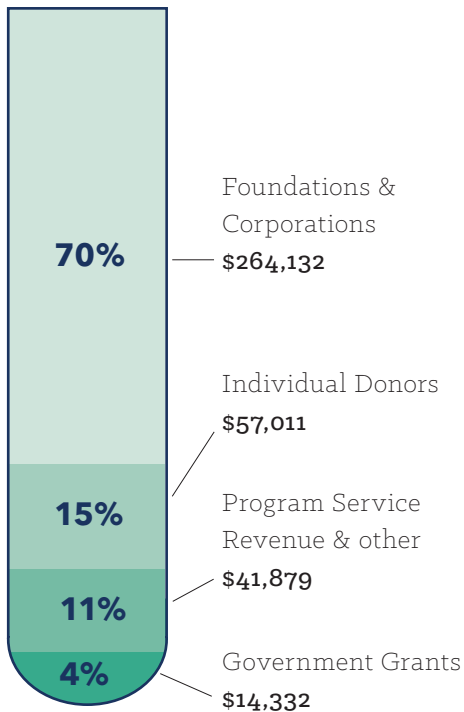
Checking and Savings	\$65,623
Other current assets	\$4,156
<b>TOTAL ASSETS</b>	<b>\$69,759</b>

### Liabilities & Equity

<b>Liabilities</b>	
Accounts Payable	\$8,817
Credit Cards	\$667
Accrued Vacation	\$6,658
<b>Total liabilities</b>	<b>\$16,142</b>
<b>Equity</b>	
Unrestricted assets	\$42,064
Retained earnings	\$77,356
Net income	\$-65,804
<b>Total Equity</b>	<b>\$56,617</b>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>\$69,759</b>

2018 INCOME: \$377,354

2018 EXPENSES: \$443,158



## CRS TEAM & LEADERSHIP

### STAFF

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

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**Michelle Fabros**, *Program and Evaluation Coordinator*

**Vivianna Juncal**, *Program Assistant*

**Betsy Mitchell**, *Project Coordinator*

**Julia Roma**, *Program Assistant*

**Darlene Yan**, *Project Coordinator*



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Co-founder, Community Resources for Science



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Director, Science Horizons

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Assistant Director of Education and Public Programs  
UC Museum of Paleontology

*Thank you to those additional Advisory Council Members not listed, whose terms ended during 2018*

