

2020 ANNUAL REPORT



COMMUNITY
RESOURCES
FOR
SCIENCE

Community Resources for Science

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

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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, for the past 15 years, has been invaluable to the way science is taught in the classes today. All the thousands of students who have been inspired to pursue science in higher education are a testament to all your support. You continually show us new ways to think and teach, and support us with workshops and trainings. These efforts have kept my zeal for learning and teaching all these past years. I still remember the first workshop CRS gave for the staff at my school- it entirely set my teaching, my life, and my students’ learning, on a different trajectory!”

-CRS Teacher Member

MESSAGE FROM CRS LEADERSHIP

“Getting to learn deeply about something they are passionate about and in which they have ownership, encourages students to push past any negative self-talk about their own abilities or any barriers they may have from their skill level in math or literacy. Science is powerful. Thank you for this amazing experience for my students, and now I am motivated to do even more.”

—Oakland Teacher

Prior to the pandemic, slow but steady progress in science teaching had been taking place in California’s public schools, particularly in those serving elementary and middle school students in historically marginalized communities. For too many elementary and middle school students, that progress has come to an abrupt halt during the shift to distance learning.

During the upheaval of 2020, CRS has been a leading voice and a reliable resource for the teachers, scientists, and partner organizations who together make up our dynamic STEM network. We:

- Provided immediate, rapid response solutions to the sudden closure of in person learning.
- Swiftly transitioned our outreach and professional development offerings to virtual formats

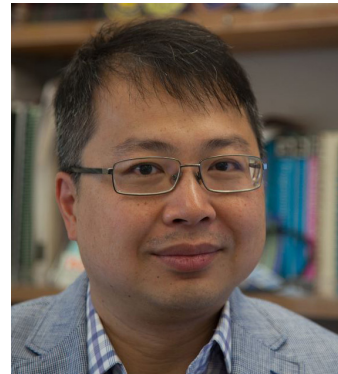
- Coordinated with trusted museums, science centers, and environmental education programs to ensure teachers knew about rapidly changing offerings.

Our nimble and unique approach allowed CRS to effectively meet the moment, as this report highlights. And, looking forward, we will continue to advocate for early science learning as a matter of racial and social justice. To overcome historical barriers that have for too long prevented women and people of color from entering STEM fields, all students must have robust, engaging early learning experiences.

We have seen clearly during this pandemic: science literacy matters now more than ever. CRS is here for the long term, supporting teachers, schools, and districts as they transform students’ opportunities to imagine their own place in the world and their own futures.



Teresa Barnett
Executive Director



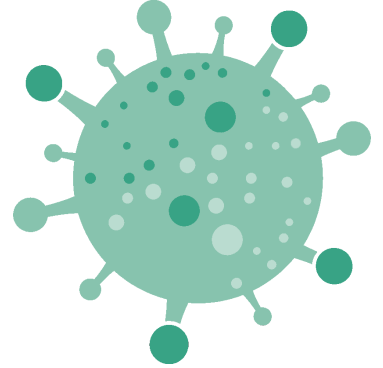
Alan Poon
Board President

ADDRESSING CRITICAL CHALLENGES

Science is too often missing from elementary schools.

75%

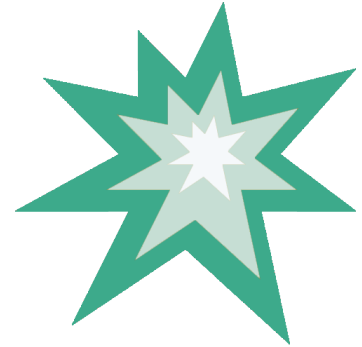
of CRS member teachers said science teaching at their schools had declined or disappeared during the shift to remote/online learning. Many elementary students are getting no hands-on science during their online class time.



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
25%**

of 4th graders had teachers who say they teach science inquiry. 85% of teachers want more science training, including opportunities to learn from STEM professionals.



Students of color are missing key learning experiences

**MORE THAN
80%**

of students of color are not receiving the robust science education that prepares them for success on meeting science standards. Statewide, 30% of students scored proficient or above in science; only 14% of African American and 18% of Latino students did.



TRANSFORMING SCIENCE TEACHING & LEARNING

2020 PROGRAM SERVICE HIGHLIGHTS

2,000+
K-8 TEACHERS
SUPPORTED



800+
SCIENTISTS &
ENGINEERS
ENGAGED



MORE SCIENCE
LEARNING FOR
45,000
STUDENTS



16,500+
KIDS MEET STEM
ROLE MODELS



200+
SCIENCE
PARTNERS
CONNECTED

INSPIRING STUDENTS



75%
OF SCHOOLS
SERVED ARE
TITLE 1*

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

“The quality of these presentations - even virtually - is incredible. My students were so inspired and one told me afterwards that she now knows what she wants to be when she grows up”

—Richmond Teacher

EMPOWERING TEACHERS

“The science experiences on electricity, magnets and motion were engaging, relevant, and informative, connecting with exactly what the students have been reading, investigating, and learning about in class. The presenters were respectful, full of information, and patient. It was great that there were multiple activities, open discussions, and very effective and relevant content. Zoom is not the most ideal setting for interactive science experiments, but the set up and presentation of the scientists could not have gone any better or smoother.”

—Oakland 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. Research confirms that teachers need opportunities to be curious, explore, and discover about the natural world -- and that professional learning rekindles their own. In a year filled with uncertainty, CRS maintained a dedication to nimble, customized support.

Rapid Response for Distance Learning

In March 2020, as schools suddenly shifted to remote teaching and learning in the face of the Covid pandemic, CRS curated an online guide for teachers and families to quickly find the best online science resources from trusted Bay Area partner organizations. From virtual field trips, to video and e-book options, lesson plans for science-at-home, and distribution of material kits, CRS helped teachers, principals and schools find the answers to their most pressing questions.

Building Environmental Literacy

Prior to the pandemic, CRS had begun to compile resources and plan professional learning opportunities to support teachers' growing desire to better provide their students with action-oriented, locally-relevant climate and environmental lessons. Despite the shift from

in-person to online formats, CRS engaged more than 400 teachers in professional learning during 2020. Nearly two-dozen partner organizations collaborated to present a series of workshops exploring citizen science, data, energy, river otters, and much more. Slide decks, recordings, and resources are archived and accessible on the CRS website, along with a resource guide highlighting the best teacher toolkits, lessons, student action projects, and more.

Reflections on Changing Practice

We ask teachers to reflect on how they are strengthening their teaching practice and to observe how the changes are impacting learning for their students. Often, teachers are surprised to see how effective hands-on lessons are for building student literacy and critical thinking.

“One of my students looked forward every week to our science lesson, especially the hands-on part of the investigation. She would eagerly sketch and take notes about what she had learned for that day. Writing did not come easy to this student, but when it came to science, this student did not see it as an obstacle to write about what she learned because she was so excited to share her ideas and she eagerly wrote and sketched in her notebook. Science with the hands on investigations is a wonderful way to engage students who otherwise struggle with reading and writing.”

— OUSD, 3rd Grade Teacher

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. Despite the shift to remote teaching, CRS met our ambitious targets in 2020, engaging more than 700 STEM professionals in our education outreach efforts. About 85% of our STEM role models and mentors 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.

“Thank you for visiting our class to talk about your lab! I enjoyed when you told us about your lives because I think scientists' lives are interesting. I learned that science can be fun and that you can do anything you set your mind to. I was surprised that me and Scientist Max have a lot of similarities because we both like football and the snow!”

—Student after BASIS Lesson





“Thank you so much for the four science presentations. My students really enjoyed having you come to class. They learned a lot about snails and other sea animals. They also got to learn more about being a scientist. When we did a science experiment today, it was clear that they remembered what you taught them about observing carefully and asking questions. It was great to see their growth in being scientists.”

-WCCUSD Teacher

Putting a New Spin on Outreach in the Face of COVID

You Belong in Science

Bay Area Scientists Inspiring Students (BASIS) teams developed new Storytime Science lessons to highlight the accomplishments of Black and Latino scientists. Kids learned about amazing astronauts, biologists, engineers and more, while having fun sharing their ideas with actual scientists. In a year with no field trips, recess, or school assemblies, BASIS in-Zoom visits created lasting memories and excitement for young students learning from their computers at home.

Science Kits

Away from the classrooms, teachers faced a major obstacle to leading science lessons: lack of equitable access to materials at home! CRS engaged business sponsors to fund Science to Go kits to send home for students to use during distance learning.

“My students were thrilled to get their science kits at home! They said they felt like real scientists!”

-Berkeley Teacher

STEM Ambassadors

More than a dozen eager scientists stepped up to pilot a new virtual Science Ambassador program, offering Science Super Star teachers the opportunity to have multiple class visits from their very own resident scientist. Students explored phenomena, learned about pathways into science careers, and even flipped the script to present their scientific discoveries to their Science Ambassador. Teachers called the program transformative!



ENGAGING COMMUNITY SUPPORT

2020 FOUNDATION AND CORPORATE FUNDERS

Bayer
Wareham Development and Richard Robbins
Berkeley Public Schools Fund
Arthur & Toni Rembe Rock
The Crescent Porter Hale Foundation
Irene S. Scully Family Foundation
Callison Foundation
Dean and Margaret Leshner Foundation
Morris Stulsaft Foundation
Clorox Company Foundation
Clif Bar Family Foundation
UC Berkeley Chancellor's Community Partnership Fund
Kinder Morgan Foundation
Grifols

Joseph and Mercedes McMicking Foundation
The Barrios Trust
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The Lowell Berry Foundation
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Lawrence Berkeley National Laboratory (LBNL)
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Thank you to these employers who matched contributions from employees in 2020: Apple, Wells Fargo, Clorox Company, Clif Bar, & Bank of America

INDIVIDUAL DONORS

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



“So many students bring their younger siblings into the virtual lessons. I loved seeing how proud they were to teach their younger brothers and sisters!”

—BASIS Volunteer

FINANCES

STATEMENT OF FINANCIAL POSITION, DECEMBER 31, 2020

Assets

Checking and Savings	\$278,917
Other current assets	\$4,157

TOTAL ASSETS \$283,074

EMPLOYER MATCHING FUNDS

- Apple
- Wells Fargo
- Clorox Company
- Clif Bar
- Bank of America

Liabilities & Equity

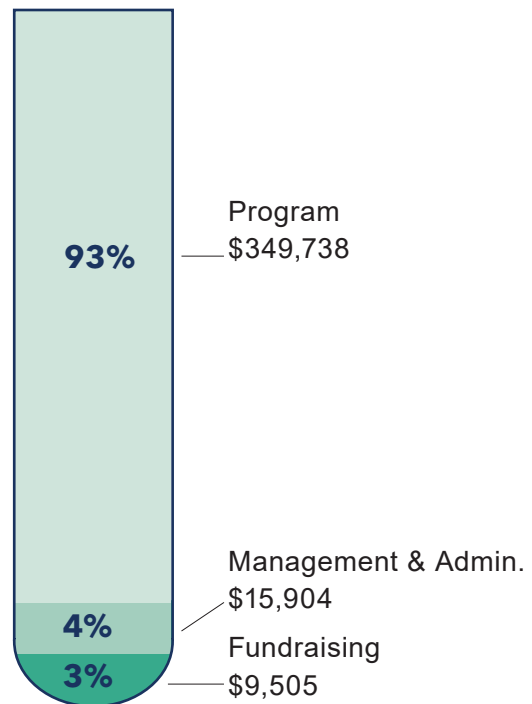
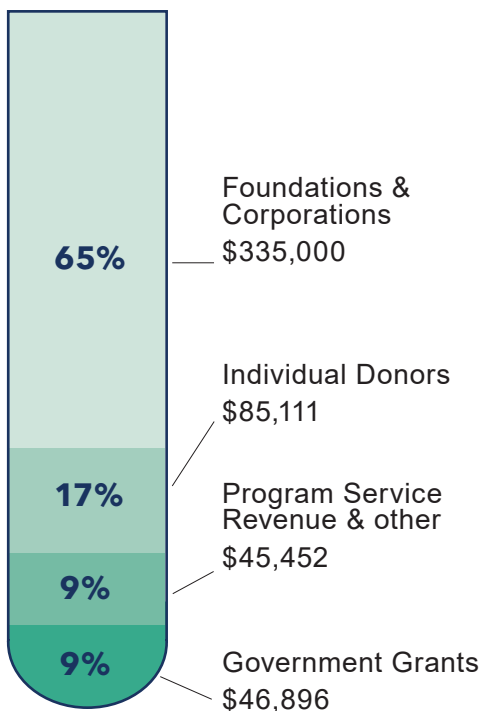
Liabilities	
Accounts Payable	\$10,420
Credit Cards	\$198
Other Current Liabilities	\$8,261
Total liabilities	\$18,879

Equity	
Unrestricted assets	\$42,064
Retained earnings	\$81,898
Net income	\$140,232
Total Equity	\$283,074

TOTAL LIABILITIES & EQUITY \$283,074

2020 INCOME: \$512,459

2020 EXPENSES: \$375,148



CRS TEAM & LEADERSHIP

STAFF

Teresa Barnett, CRS Executive Director
Corinn Brown, Teacher Services Manager
Tyler Chuck, Senior Manager, Engagement and Outreach
Greg D'Arezzo, Director, Strategic Growth Planning
Anais Namahoro, Program Assistant
Matthew Metzger, Be a Scientist Program Assistant
Luis Valentin-Alvarado, Be a Scientist Program Assistant
Denise Abersold, Professional Development
Eric Havel, Professional Development
Jade Fostvedt, Campus Coordinator
Julie Fornaciari, Campus Coordinator
Betsy Mitchell, Project Coordinator
Darlene Yan, Project Coordinator
Evan Sousa, Project Assistant



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Environment, City of Oakland

Nicki Norman, *Emeritus*
Co-founder, Community Resources for Science

FROM RAPID RESPONSE TO LOOKING FORWARD

"I think, metaphorically, that we have landed on Mars without a plan. Now we have to try to live on the planet. Every day is a new discovery of how to survive one-step-at-a-time. I am finding what works and what doesn't, and what needs to be flipped to make it work for everyone."

—Oakland 5th Grade Teacher and CRS Advisory Council Member

School Closures

In March, when school doors closed, we all faced the alienation and uncertainty of the moment. CRS remained focused on solutions, community and equity as we charted our new path forward. We remained financially stable, curated urgently needed resources, revamped our programs to fit the constraints of engaging at a distance, and managed to meet and exceed our goals for 2020.



Adapting to COVID Life

During Summer 2020, CRS quickly adapted from our Spring pilots to fully revise training, develop new partnerships for ongoing teacher professional development, engage business sponsors to get needed science supplies distributed to students learning from home, and completely overhaul our highly-used website to better serve the new needs of educators and partner organizations. We redoubled our efforts to reflect diversity and inclusion in our programming and in the scientists featured in stories and lessons that we share with students and families.



Looking Ahead to 2021

Looking ahead, CRS enters 2021 on stable financial grounding, with an energized team ready to continue the push toward greater equity in learning experiences for children in our most marginalized communities. Empowering teachers and scientists to lead joyful, meaning-making investigations and explorations will ensure more students have the opportunity to imagine bright futures and develop strong critical reasoning skills. We invite STEM industry partners to join in our 2021 campaign to advocate for, fund, and engage in high-quality, impactful STEM teaching and learning!





CRS

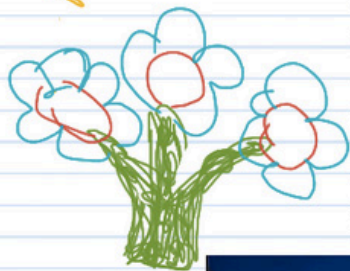
WWW.CRSCIENCE.ORG

COMMUNITY RESOURCES FOR SCIENCE

ESTABLISHED
1997



Dear Isaac, Tyler, Rei Chi and Steve,



Thank You for coming and teaching us about Polymers. I got to learn some new things that I did not know so I really appreciate it. It was nice having you guys with us. Thank you for also teaching us like how to do a bouncy ball without having to buy one and also I learned that when you put oil in water the oil will go back out. I did not know that. Thank you. Also thank you for taking your time and coming to teach us. I hope you guys have a nice day.



Sincerely,
Kelly A.

Thank
You!