



COMMUNITY RESOURCES FOR SCIENCE NEWS

Empowering teachers and scientists to inspire young learners

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Newsletter, Spring 2017

Celebrating 20 Years: Honoring Excellence and Looking to the Future

When Anne Jennings and Nicki Norman co-founded Community Resources for Science in 1997, Google was in its infancy. Teachers wanted help finding science lessons or scheduling field trips, so CRS carried big binders full of activities to school staff meetings and communicated with teachers via postcard.

Fast forward 20 years: technology has changed drastically, but the need for personalized teacher support and connections to resources has only intensified. We get more calls and emails than ever, as an increasing number of teachers and principals discover the power of science and engineering for engaging all types of elementary learners and eager to meet scientist role models.

CRS has evolved over the past 20 years, nurturing a dynamic network, connecting thousands of teachers and students with hundreds of scientists, engineers, and many partner organizations in the Bay Area. We empower teachers and scientists to spark inspiration and provide meaningful learning experiences for young students. Teachers tell us "CRS is the best friend a teacher can have!"

Tens of thousands of students have had hands-on learning experiences as a result of CRS support. We know they won't all grow up to be rocket scientists, but we do hope they will grow up into scientifically literate citizens who base their decisions on evidence, and who think critically and who are sound stewards of the environment.

CRS Milestones of Note

- CRS now serves nearly 1,700 teachers across 130+ schools, impacting learning for 40,000+ K-6 students each year
- We've trained and deployed 2,400+ scientist and engineer classroom volunteers
- Our scientist and engineer volunteers inspire and directly engage in learning with 15,000 K-6 students and 700 7th grade mentees each year

To express our heartfelt appreciation, CRS celebrated the 20 year mark with a festive event in March which brought together those who have been part of the journey: Board and Advisory Council members, teachers, volunteers, partners, sponsors, donors, and friends. To meet some of our special honorees, visit (<http://www.crs-science.org/educators/ItsElementaryHonorees>)



Emcee Peter Gleick stresses the importance of science education in our local elementary schools

Both event emcee Peter Gleick, President Emeritus and Chief Scientist, Pacific Institute, and featured speaker Trina Ostrander, Director of Cal State East Bay's Institute for STEM Education, spoke passionately about the importance of early science learning to prepare our future

leaders and problem solvers.

Generous sponsorship from Bayer, Clif Bar, UC College of Chemistry, Delta Education, and Port of Oakland, along with in-kind donations of wine and beer, made our festive celebration possible.



So far, more than 100,000 young students have directly engaged in active learning with our BASIS volunteers!

To close the evening, Distinguished Professor of Chemistry and longtime CRS supporter Robert Bergman and his wife Wendy pledged \$10,000 as a challenge grant to plant the seeds for the next 20 years of CRS. Already, we have raised \$6,000 toward that goal, with all gifts matched to double the impact.

We are excited to see what the next 20 years will

bring. Whatever changes in technology and education are in store, there will always be a need for facilitating person-to-person connections, preparing and linking scientists, engineers, teachers, students, and partner organizations in a dynamic network of science teaching and learning!

During the program, CRS honored partners as Exemplars of Excellence: Bayer AAHA (African American Hispanic Association, UC Berkeley EECS (Electrical Engineering & Computer Science), and Science@Cal. CRS also honored Exemplar of Excellence Volunteers: Claire Wemp, Allen Pan, Jason Pflueger, Jesyka Melendez-Rosa, and Meredith Triplet. *See our teacher honorees on Page 2.*

To see photos from the event, visit:

www.flickr.com/photos/crs-science/albums/72157681654573985

Meet Our Science Super Star Exemplars of Excellence

For the 6th year of the Science Super Star Challenge, CRS once again raised the bar, and once again teachers rose to the challenge! This year we asked teachers to reflect on how their teaching practices have strengthened with the implementation of Next Generation Science Standards. From among the 75 teachers who met the challenge, the following teachers stood out as Exemplars of Excellence, and were honored at our 20 Year Celebration.

- **Aiko Keen**, Bridges Academy at Melrose, OUSD, recognized for extraordinary efforts to explore strategies for connecting student science learning with language arts



Top: Constance Zunino, Cherene Fillingim-Selk
Bottom: Jesse Welcomer, Ann Park, Aiko Keen

- **Ann Park**, Bridges Academy at Melrose, OUSD, recognized for extraordinary efforts to engage students in critical thinking through the use of evidence to support claims in scientific discussions
- **Cherene Fillingim-Selk**, Cragmont Elementary, BUSD, recognized for extraordinary efforts to engage classroom teachers and the broader school community in science and STEM learning
- **Constance Zunino**, Prescott Elementary, OUSD, recognized for extraordinary efforts to engage students in investigations and exposure to university scientist role models
- **Jessie Welcomer**, Montalvin Manor Elementary, WCCUSD, recognized for extraordinary efforts to engage students in designing and communicating about their scientific learning investigations

Video: <https://www.youtube.com/watch?v=dt9xO0uTp-U>

Private Industry Partners: Inspiration Goes Both Ways

For the hundreds of CRS volunteers who share their love of science and engineering, engaging with students in our Bay Area communities is an incredibly rewarding experience. We are delighted to work with volunteers from private industry – ranging from big employers such as Clorox and Bayer, to smaller organizations like Pocket Gems and Port of Oakland. CRS provides the training and arranges the logistics – teams tell us when they are available and we arrange for the classroom visits. Employees enjoy the skills-based community service, and often bond over a post-class-visit lunch or coffee together before returning back to their labs re-charged and reminded why science is cool! Here's a spotlight on one of our newest private employer partners, Health Advances.

Health Advances, a San Francisco consulting firm that focuses exclusively on technologies, products, and services of the healthcare industry, reached out to CRS to facilitate their community involvement through science outreach. The staff at Health Advances consists of scientists, clinicians, and business professionals.

Over two dozen Health Advances employees will be volunteering with CRS to put on a Day of Science for a West Oakland elementary school. Every Kindergarten through 5th grade student at Prescott Elementary will rotate through three science activity stations – DNA Strawberry Extraction,

Cabbage Juice pH Indicator, and Magnetic Iron in Cereal. Students will learn where DNA is located, how to visualize these instructions hidden in our cells, and have the opportunity to extract DNA from strawberries! At the Cabbage Juice pH Indicator station, students will be introduced to the concept of acids and bases and use the juice from red cabbage leaves to make predictions about the properties of common household substances. The third station will demonstrate that iron is magnetic, how this metal is actually found in some of our foods, and the importance of iron in how our bodies function.

To prepare the volunteers for their outreach day, CRS staff visited the Health Advances

office in downtown San Francisco to provide employee training for the science activities and discuss best practices for engaging with elementary students. We were greeted by a conference room full of eager volunteers! Everyone we met at Health Advances was enthusiastic about sharing their passion for science and engaging with students in the community.

"I remember doing DNA extraction from strawberries when I was an elementary student," reminisced one enthusiastic volunteer.

He clearly recalled this formative hands-on science interaction from his childhood and discussed how it influenced his future career path. We are so excited to bring this activity and others to the students at Prescott Elementary and to have found an enthusiastic new industry partner with Health Advances!



Students learn about buoyancy from the Port of Oakland



Students amazed by liquid nitrogen at a "Day of Science"

Thank you to our 2017 Partners & Supporters

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Student learns about states of matter during a BASIS lesson



Students pose with their scientist mentor in the "Be A Scientist" program

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Student shows her excitement after learning about seed dispersal at Cal Day

Thank you to our many business donors, sponsors, and partners!
 For the full list, visit:

www.crscience.org/about/funderspartners

Resource Fair: It's All About Making Connections

Science is all about learning about and making connections to the world around us. How does it work? How do you know? The CRS Spring Field Trip for Teachers, including our 3rd annual Science Resource Fair hosted by Chabot Space & Science Center, was all about helping teachers find the resources they need to help their students make connections in science.

Education teams from 28 science education providers, large and small, from around the Bay Area were on hand to meet with teachers, with displays highlighting their programs and services and hands-on materials.

The Chabot education team also presented a lively program for teachers, while partner organizations had a networking session of their own to share highlights and things they are excited about. For teachers and partners, it was a productive morning for making connections in the name of science.

Thank you to our hosts, Chabot Space & Science Center, and the teachers and partners who made this Field Trip for Teachers and Science Resource Fair such a great success:



Teachers gather science resources at a Field Trip for Teachers at Chabot Space and Science Center

Aquarium of the Bay
Astronomical Society of the Pacific
Bay Area Biotechnology Education Consortium
Bay Area Wilderness Training
California Coastal Commission
California Institute for Biodiversity
CalTeach Science and Math Initiative
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Oakland Zoo
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SaveNature.org
Stepping Out Stepping In
The Gardens at Heather Farms
The Marine Mammal Center
UC Botanical Garden

Help Us Reach the Bergman Challenge Grant: \$10,000



Robert Bergman presents the Bergman Challenge Grant

In honor of 20 years of CRS, UC Berkeley Distinguished Professor of Chemistry Robert Bergman and his wife Wendy have announced the Bergman Challenge Grant, matching gifts up to \$10,000.

Help us reach the goal! \$3,500 to go!

To make a donation, visit our giving website:
www.crscience.org/events/springgiving

Or mail a check and the form below to:
Community Resources for Science
1611 San Pablo Ave. Suite 10 B

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To honor a specific teacher, please tell us his/her name: _____

What do the 2017 Science Super Stars Have in Common?

All 75 teachers who participated in this year's Science Super Star Challenge worked hard to engage their students in meaningful science experiences, and took time to reflect on their practices. These teachers exemplify the ways in which a growing number of elementary school educators are transforming science and engineering teaching and learning in their classrooms. They are embracing new ways of helping their students develop the skills to explore, think critically, and build deep understanding of natural phenomena like falling raindrops, swinging pendulums, and the amazing diversity of bugs and plants in their school yards.

All of the teachers listed below are Science Super Stars. They have shown us that they are working diligently to bring meaningful science experiences to their students. The "Trailblazers" and "Science Resource Teachers" have gone beyond the standard

"Just by having this challenge I have been motivated to do more science"

-Aiko Keen, 2nd Grade Teacher

level of Science Super Star by submitting a more detailed reflection on their science teaching. The highest level belongs to our five "Exemplar of Excellence Honorees."

Generous donations from over a dozen publishers and resource partners (please see list) made it possible for teachers to receive prizes such as books, field trips, museum and zoo tickets, science materials, and in-school assemblies.



Students excited after receiving their Science Star Prizes of books and magnifying glasses

2017 Science Super Star Honorees

Berkeley Unified School District

- **Berkeley Arts Magnet:** Suzanne Wright
- **Cragmont Elementary:** Mollie Blustein, Cathie Irwin; Trailblazers: Meredith Aki, Pamela Deibel, Sara Ellberg, Michelle Johnson, Bobbye Smith, Eleanor Tiglaio; Science Resource Teacher & Exemplar of Excellence Honoree: Cherene Fillingim-Selk
- **Jefferson Elementary:** Science Resource Teacher: Bethany Lourie
- **John Muir Elementary:** Trailblazer: Carrie Johnston
- **Washington Elementary:** Trailblazer: Mindy Geminder

Castro Valley Unified School District

- **Palomares Elementary:** Trailblazers: Gigi Catrina, Amber Pyle

Fremont Unified School District

- **Brookvale Elementary:** Trailblazer: Connie Bi

West Contra Costa Unified School District

- **Collins Elementary:** Janet Belanoff
- **Ellerhorst Elementary:** Denise Abersold
- **Montalvin Manor Elementary:** Trailblazer & Exemplar of Excellence Honoree: Jessie Welcomer

"The various resources, books, and prizes that CRS provides have not only helped me and my students feel recognized for being scientists but also motivates us to continue to do more science in the classroom"

-Maria Motonaga, 1st Grade Teacher



Constance Zunino, Aiko Keen, and Ann Park with their Science Super Star Awards

Oakland Unified School District

- **Allendale Elementary:** Sara Salvagio, Maria McCord; Trailblazers: Alma Buenavista, Meaghan Matsuoka
- **Bridges Academy at Melrose:** Gloria Garcia; Exemplar of Excellence Honoree Aiko Keen; Trailblazer & Exemplar of Excellence Honoree: Ann Park
- **Chabot Elementary:** Miranda Carrow, Kelleth Chinn, Rebecca Dunning, James Harrison, Leslie Rychel, Meghan Shaughnessy, Laura Shield; Trailblazers: Deborah Flanagan, Amy Moscato, Darlene Perdisatt, Joon Yeider; Science Resource Teacher: Juli Ward
- **Franklin Elementary:** Lisa Lam
- **International Community School:** Trailblazers: Denise Case, Lindsay Daseler, Timothy Douglas, Hannah Englund Nelson, Carolina Equihua-Cerda, Alejandro Estrada, Nicol LaCava, Pamela Long, Carlos Navarro, Micaela Morse, Raquel Rodriguez Jones; Science Resource Teacher: Liz Woodward
- **Laurel Elementary:** Melissa Gale-Cox, Susan Varner; Trailblazer: Lena Why
- **Learning Without Limits:** Trailblazers: Miriam Lavender, Tess O'Brien, Duffy Ross
- **Lincoln Elementary:** Rob Fong, Brooke Guiney, Maria Motonaga; Trailblazer: Allison McGuirk
- **Manzanita Community School:** Angela Gilyard-Shyne
- **Markham Elementary:** Nikita Gibbs, Lynne Martin; Trailblazer: Elizabeth Cooke
- **New Highland Academy:** Trailblazers: Kimberly Aguilar, Carrie Anderson, Emily Blossom, Tracy Dordell, Erica Guerrero
- **Prescott Elementary:** Linda Fox, Jean Ma, Paula McGlone, Lynna Reid; Trailblazer & Exemplar of Excellence Honoree: Constance Zunino



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Students engineer a sticky seed while learning about seed dispersal at Cal Day

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20 Year Milestone:

CRS reaches 100,000 K-6 students with BASIS Lessons from CRS Volunteers



See More CRS Milestones at

www.crscience.org/20YearTimeline

"This was an amazing presentation that will help future lessons and was an incredible and engaging activity. The presenters were fabulous and it was wonderful to have my students see native Spanish speakers as scientists!"



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