Inspiring teachers and students to explore science learning
For CRS, 2011 was a year focused intensively on Connections. We worked to deepen our existing relationships with teachers, volunteers, science education partners, and donors while also building new relationships with others working toward the mutual goal of ensuring young students have access to high-quality science learning experiences. Our BASIS volunteer program served as a cornerstone of this innovative web of connections, bringing diverse, enthusiastic science role models into classrooms to inspire students to consider futures in science.

Ours is a story told in numbers of teachers served, of volunteers and students engaged in lessons, of percentages in survey replies. But our impact is also reflected in the photos we gather, the heartfelt student thank you cards that pour into our mailbox, and the thoughtful comments we receive from teachers and volunteers. The most powerful connections we make are those between people sharing a love for learning about the world we all live in.

CRS successfully engaged more teachers and scientists this year, while also refining our organization infrastructure and tools that will allow for continued growth in the years to come. While continuing to serve all elementary teachers in Berkeley and Emeryville public schools, we put considerable focus on reaching even more teachers within the Oakland schools as they work toward implementing required science instructional time. We developed our online and social media platforms to more effectively share timely information, encouragement and support for our teachers and volunteers. Our efforts earned CRS recognitions as one of the “50 essential twitter feeds for STEM educators” and an invitation to join the White House’s Change the Equation STEM education initiative.

We were especially pleased and honored to bring together a distinguished group of thought leaders in the fields of science education to convene our CRS Advisory Council on Elementary Science Education. This group of museum, university, school district, and corporate science leaders has devoted time to considering practical steps we can take together to “move the needle” in science education for elementary students and in providing greater support and professional development for the teachers who work with these students. This year, the group identified strategies for increasing the amount of time devoted to science in the classroom, participated in the wildly successful Bay Area Science Festival, and helped CRS establish a Science Super Star recognition and awards program to motivate and reward teachers and schools who embrace increased science teaching and learning in their classrooms.

We are pleased and honored to have a strong and growing network of corporate, foundation, and individual donors who believe in the importance of the work that we do. For CRS, 2011 was a tremendous year of program and organizational growth and maturation. We are sincerely grateful to all who are connected in this unique and dynamic web to promote science learning.

Susan Kattchee, President

Teresa Barnett, Executive Director
2011 CRS Program Highlights

By the Numbers: CRS Program Accomplishments over the course of 2011:

- Over 900 teachers served
- 92 schools reached
- 30,000 students’ science learning impacted
- 325 scientist volunteers placed in classrooms
- 380+ hands-on lessons presented
- 9,500 students experienced hands-on science activities with visiting scientists

CRS 2011 program activities serving teachers and students included:

- CRS provided teachers with monthly email updates; quarterly comprehensive science resource guides; and newsletters, and customized on-call support.

- Field Trip for Teachers events, held at Marine Science Institute, in partnership with Hiller Aviation Museum and others; and at the Hayward Shoreline Interpretive Center, in partnership with RAFT, Kids on the Bay, Sulpher Creek, and others.

- CRS was awarded a UC Chancellor’s Grant, matched by Lawrence Berkeley National Lab, in order to expand our recruitment, preparation, and placement of Cal scientist in local schools.

- CRS completed year one of an expanded private industry science volunteer pilot project in partnership with Bayer. The program exceeded all goals, with enthusiastic scientist participation and equally enthusiastic classroom teacher and student feedback. We will focus on refining this pilot into a model program CRS can bring to additional “corporate” science workplaces.

- Building on the lessons of the successful 3 year middle school pilot program at PMS, we provided two “day of science” events featuring hands-on, scientist-led lessons for all 175 6th grade students at Willard Middle School in Berkeley.

- CRS continued professional development support for Berkeley Unified School District science specialist teachers who provide science instruction for all 4th and 5th grade students. CRS facilitated planning, meetings, scientist presenters, and documentation.

- Convened Advisory Council; results included launch of Science Super Star awards program, participation in Bay Area Science Festival, and publication of pro-science education editorial in regional media.

*Thanks so much for all of your enthusiasm - your love for learning and science were contagious!*
*Janine Tong, Teacher, BUSD, Grade 1*

*I was reminded that science surrounds us, and that a science lesson does not have to be complicated.*
*It can be fun and should be hands on.*
*Maribel Lopez, Teacher, WCCUSD, Grade K*
**CRS 2011 Organization Accomplishments**

Our dynamic year included strengthening the infrastructure of our organization in order to build a solid base for continued growth serving more teachers and engaging more scientists to volunteer to serve as inspiring role models for students. Some of that work included:

- CRS implemented our 2010 strategic plan during the 2010-11 school year; we met or exceeded all of our goals. CRS revisited the plan and adopted new goals for the 2011-12 school year and established clear metrics for measuring real-time progress.

- CRS has received Salesforce.com pro bono consulting to further refine our implementation of Salesforce.com platform across the organization, for efficiency in communication and workflow, resource management, and tracking progress toward goals.

- CRS prepared for and functioned smoothly through key staffing transitions as longtime program manager and key project coordinator both transitioned to graduate/medical school. New staff was successfully hired, trained, and in-action without any disruption to programs.

- **As our teacher membership has grown (more than 20%) and volunteer program has grown (more than 40%),** CRS has managed to increase efficiency and carefully grow staff and contract support roles to keep pace with the growth. CRS now supports 3 full-time staff positions, and about a half-dozen part-time consultant positions with special functions such as project coordination, recruitment, and training.

- CRS continues to benefit from strong intern support, with talented graduate and undergraduate student volunteers taking on projects to assist with development, administrative, and program support.

**From our Volunteers:**

*The kids are great, and I feel like by promoting science education we are not only directly helping broaden their horizons, but making an investment in the future of our nation as well by encouraging scientific literacy and awareness.*

Sean McFarland, “Optics, Kaleidoscopes”, Middle School Lesson

**Survey Shows CRS Impacts Teacher Practice and Confidence**

On program evaluations, most teachers indicated that during CRS in-class science presentations they observed one or more of their students engaged successfully in the learning activity in a way not seen during traditional instruction.

Teachers overwhelmingly indicated this motivated them to increase science activities in their classrooms.

- 87% of teachers say CRS helped them feel more informed about science resources
- 75% or more of teachers say CRS support increased the amount of science they teach
- 75% of teachers say CRS support helped them learn where to find the information they need and where to turn for planning support

*I've learned that fifth graders with limited science educations still have excellent scientific instincts and reasoning powers, and that it's not too late to reach them at this stage.*

Miriam Bowring, “Chemistry of Soap”, 5th grade lesson
CRS Staff Reflections on Working with Teachers and Scientists in 2011:

Every day I am in communication with our volunteers, helping them revise lesson plans, find materials, and connect them with resources. So, it’s wonderful hearing back from volunteers and teachers that lessons have gone well and that students were just so enthusiastic about science after the visit. In the end, everyone is happy.

Most of our scientist volunteers remember similar experiences from elementary school when they had scientist guests in their classrooms, and they remember how much these demonstrations made an impact on their own decision to study science.

Sandra Lee-Takei, Program Manager Volunteer Recruitment & Education Outreach

My biggest successes this year go back to the original goals of CRS - supporting teachers by connecting them with the bountiful science education community in the Bay Area.

This fall the East Bay Regional Parks asked us for help finding teachers to pilot some new curriculum. We sent the email out to our teacher members and received an overwhelming response of teachers who wanted to participate. We also announced a new opportunity for environmental-themed assemblies, and the organization quickly filled up all of their slots. These responses showed that teachers really are reading the information we send out, and that they want to be connected to the science resources in our community. The science providers saw us as a good place to look for engaged elementary teachers to help them with the projects.

The Fall Field Trip for Teachers is another excellent example of our impact with teachers and science providers. The teachers who attended loved getting to have a hands-on experience in the mud lab. The science providers who attended got to see firsthand what their colleagues do, and two of the organizations who networked at the event are now partnering to offer a summer science camp.

We provide teachers with individualized support, such as a request from a teacher about where to borrow microscopes and if we knew of any scientist who could speak on air quality. We were able to match the teacher up with OUSD’s SMART Center for the equipment and with the Bay Area Air Quality Board for curriculum materials and a speaker, leading to a series of lessons that were successful beyond the teacher’s expectations.

Corinn Brown, Teacher Services Manager

The most rewarding thing about working at Community Resources for Science is that I, almost immediately, get to see what kind of direct impact our organization makes on the life of a teacher or the life of a graduate student. I sit at my computer every morning looking forward to checking emails. I usually end up sporting a grin by the time I’m done with the morning read-through as a result of teacher and volunteer messages.

Being immersed in the process of gathering dates from volunteers and finding classrooms to put them in can be overwhelming from time to time, but there is truly nothing like a teacher’s email after a presentation that is overflowing with gratitude, excitement, and enthusiasm (and pictures of her class!). One teacher wrote to say there is nothing out there that’s comparable to our BASIS program. Another wrote back to say that her students continue to talk about Hector, a BASIS volunteer, who visited their class. And yet another wrote about her kids using new vocabulary they’d learned from the lesson when she started to teach the related unit a couple of days later. I truly value the experiences we can help give to these students, teachers, and graduate students.

Ralitza Zikatanova, Manager Program Communications & Coordination
Board of Directors 2011-12

Susan Kattchee, President
Environmental Services Manager
City of Oakland

Lauren Luke, Secretary
Diversity Pipeline Program Manager
The Bar Association of San Francisco.

Adela Pang, Treasurer
Managing Director, Financial Planning & Analysis
Kaiser Permanente

Robert Bergman
Gerald E.K. Branch Distinguished Professor of Chemistry
University of California, Berkeley

Justin Curley
Attorney, Seyfarth Shaw LLP

Anne Jennings
Relocation Program Manager, Exploratorium

Nicki Norman
Consultant; CalTeach Instructor, UC Berkeley

Claudio Vargas
Manager, Elementary Science, OUSD

David Pontecorvo
Completed term of service, October, 2011

CRS is pleased to acknowledge the generous support of the following funding partners who awarded grants that supported our work during 2011:

- Amgen Foundation $10,000
- Bayer Health Care $30,000
- S. D. Bechtel, Jr. Foundation $35,000
- Beckman Coulter Foundation $2,500
- Berkeley Public Education Foundation $10,000
- Bernard E & Alba Witkin Charitable Foundation $2,000
- Clif Bar Family Foundation $10,000
- Cisco Systems $15,000
- Clorox Company Foundation $5,000
- East Bay Community Foundation $15,000
- Irene Scully Foundation $25,000
- Jiji Foundation $3,000
- JP Morgan Chase Foundation $15,000
- Lawrence Berkeley National Lab $5,000
- The Lowell Berry Foundation $3,000
- Joseph R. McMicking Foundation $7,500
- RGK Foundation $25,000
- UC Berkeley Community Partnership Fund $5,000
- Wells Fargo Foundation $3,000
CRS Advisory Council Members 2011-2012

Alan Poon  
Group Leader, Nuclear Science Division  
Lawrence Berkeley National Laboratory

Anne Richardson  
Manager, School Field Trips/Field Trip Explainers  
Exploratorium

Beth Burnside  
Vice Chancellor of Research, Emeritus & Professor of Cell and Developmental Biology, Emeritus, UC Berkeley

Caitlin Jenkins  
4th and 5th Grade Science Teacher  
Berkeley Arts Magnet & Emerson Elementary School

Caleb Cheung  
Science Program Manager  
Oakland Unified School District

Christiane Parry  
Director of Public Programs  
California Coastal Commission

Diana Vélez  
BASP Professional Developer/ FOSS K-5 Specialist, UC Berkeley, Lawrence Hall of Science

Eric Havel  
Education Director, Chabot Space and Science Center

Helena Carmena  
Senior Manager of Teacher Education  
California Academy of Sciences

Jack Kirsch  
Professor of the Graduate School of Biochemistry and Molecular Biology, UC Berkeley

Jan Robertson  
Science Specialist, Alameda County Office of Education

Jennifer Sethasang  
4th Grade Classroom Teacher, Lead Science Teacher, Community United Elementary School, OUSD

Joanna Totino  
FOSS Professional Development, Co-Director; Bay Area Science Project, Co-Director  
UC Berkeley, Lawrence Hall of Science

Jose Castillo  
Quality Control Analyst  
Bayer Corporation

Judy Scotchmoor—Advisory Council Chair  
Director of Education and Public Programs  
UC Museum of Paleontology

Katherine Nielsen  
Co-Director, Science and Health Education Partnership, UCSF

Mindy Rex  
Assistant Dean, College Relations and Development, UC Berkeley College of Chemistry

Miriam Bowring  
Graduate Student, Department of Chemistry  
UC Berkeley

Mohit Rajani  
Software Engineer, Google Inc.

Molly Fraker  
Executive Director  
Berkeley Public Education Foundation

Nancy Blachman  
Founder, MathDelights.org and The Julia Robinson Mathematics Festival

Nancy Kaiser  
Interpretive Services Manager  
East Bay Regional Parks District

Norman Brooks  
Director, Science Horizons

Rebecca Smith  
Co-Director, Science Health and Education Partnership, UCSF

Robert Curtis  
Science Coordinator  
Alameda County Office of Education

Sherry Johnson  
Science Educator

Stan Fukunaga  
Senior Manager of Professional Development  
Chabot Space and Science Center

Susan Bellone  
Science Educator

Becca Todd  
District Library Coordinator, Berkeley Unified School Dist.
### Statement of Financial Position, December 31, 2011

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### CRS 2011 Income

- **Foundations & Corporations**: $188,470
- **Individual Donors**: $15,235
- **Program Revenue**: $12,249
- **Gov't. Grants**: $10,000

Total: $225,954

### CRS 2011 Expenses

- **Program**: $214,937
- **Management**: $13,752
- **Fundraising**: $12,320

Total: $240,829