



Community Resources for Science News

Weaving connections among teachers, students & science in the Bay Area

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Newsletter, Fall 2011

Season of Celebration: Founders' Event & Volunteer Kickoff

The CRS Founders' Celebration held in late August was a festive, successful event honoring over 14 years of science education support. Thank you to event sponsor ClifBar for hosting the gathering, and to esteemed scientist Peter Gleick for speaking about the importance of science education (Top left). Congratulations to founders Nicki and Anne!



Scientist volunteers were on hand to share some of the magic they bring into local classrooms with tabletop versions of their hands-on lessons. Thank you to Gautham, Leah, Kristen, and Ashley! (Upper right, Ashley making Liquid Nitrogen Ice Cream)

CRS Board President Susan Kattchee, and Treasurer David Pontecorvo, presented Anne and Nicki with certificates of recognition from Assembly member Loni Hancock for their forward thinking in creating CRS in response to the needs of teachers and the desire for more effective science teaching in local public elementary schools.



Above: Current and prospective volunteers glance through scrapbooks of thank you notes at the BASIS Kickoff

Nearly 100 enthusiastic Cal scientists packed the house for the CRS Fall Kick-Off in September, thanks to the outreach efforts of campus coordinators Leah Witus and Kristen Seim and the rest of the Steering Committee. These included returning BASIS alums as well as many of the more than 60 new volunteers CRS has already recruited this fall.

While returning BASIS teams are already heading out to classrooms in October, new volunteers are developing creative new lessons to get students excited about science.

BASIS volunteers inspire and engage the teachers and students they work with in local classrooms. One BASIS volunteer summed it up this way: Participating in the program has "helped me to...understand why I'm here [in graduate school], what initially made me excited about science and makes other people excited about science too."

There's Nothing Like the Real Thing



The CRS Field Trip for Teachers at The Hayward Shoreline Interpretive Center in September was a great reminder that there is nothing like real life experiences to learn about something, even something as seemingly simple as mud. Adrienne DePonte, of the Hayward Shoreline, led attending teachers through a "Mud Lab".

We rinsed a clump of mud to loosen up all the particles then took our samples to microscopes to discover how many types of wiggly micro-organisms make their homes in the mud.

Adrienne also walked our group out to an anise bush next to the road. Nestled in the fronds were the caterpillars of swallowtail butterflies. Are there any of these forgotten locations on your school yard? You don't have to go far to find something new and exciting to explore!

Not only did we get to explore the Hayward Shoreline Interpretive Center, we were also treated to dinner while we networked with representatives from the Marine Science Institute, Kids for the Bay, RAFT and Sulphur Creek Nature Center. These programs have so much to offer our schools and families. We hope you can attend our next Field Trip!

Above: Examining the swallowtail caterpillars on an often overlooked bush next to the road.

Welcome to our new Staff Members!

Sandra Lee-Takei is our new Program Manager for Volunteer Recruitment and Education Outreach. After completing her Bachelor's degree in Biology from UC Berkeley, Sandra spent several years teaching math and science at the elementary and middle school levels through the Lawrence Hall of Science and various environmental health organizations. Most recently, she was the assistant director of the Sendai Student/Youth Center in Japan for over 2 years where she managed volunteers and programs for university students. Now, she's excited to be working with BASIS volunteers and helping them to develop hands on and interactive lesson plans so they can share their love of science with local elementary school students.

Our new Private Industry Volunteer Coordinator, Michelle Korenstein Schorr, holds a BS in Biochemistry and an MA in Education. Her professional background includes years of benchtop research, followed by teaching medical technicians and scientists about scientific theory and practicum. She has volunteered in an after school science club in San Francisco through UCSF's SEP program and worked locally at Bayer Diagnostics and Genentech. Michelle is passionate about science programs that excite students to learn and explore and looks forward to working with CRS' private industry partners.

CRS at the Bay Area Science Festival

This year is the inaugural Bay Area Science Festival. UCSF, UC Berkeley, Bay Bio Communities, The Lawrence Hall of Science, and many other colleges, universities, and science partners are banding together to bring the wealth of science in the Bay Area to the attention of its citizens. All across the region, science will be highlighted during the week of **October 29 – November 6**.

CRS is participating during the entire week by bringing science to local, East Bay farmer's markets in a series called Explore What You Eat. BASIS volunteers will be highlighting the science of composting, making liquid nitrogen ice cream, and plant parts that we eat, among other activities. The event culminates with a **free day of science at**

AT&T Park in San Francisco on November 6, from 11 am to 4 pm. Come see the CRS table (we'll be on the Club Level!) and explore with our BASIS volunteers the wonders of making your own soda out of juice and learning why soda is bad for your teeth!

To see our full event lineup, visit: www.crscience.org/events/farmersmarkets or go to www.bayareascience.org for all of the Festival events going on from the end of October through the beginning of November.

We hope to see you during the week to celebrate the Bay Area's wealth of science resources and to keep the science enthusiasm running full-speed ahead for the rest of the school year.

Training Students to Ask Questions and Think Like (Bayer) Scientists

Following the success of the first year of our partnership with Bayer Healthcare, CRS trained 22 new Bayer volunteers on the Berkeley

and Emeryville campuses. In addition, over half of the scientists that CRS trained last year returned this fall to learn a new lesson.

model proper safety technique.

They were amused by a student's request to "blow something up" which speaks to a common misconception about scientists. One of the goals of BASIS is breaking down some of these stereotypes. Chris said that he enjoyed "feeling a sense of being able to provide a good role model." This fall, Ted and Chris will teach a Kindergarten lesson on insects called Build-A-Bug.

This year, CRS hopes to expand our partnerships with local private biotechnology and pharmaceutical companies as we prepare to lead training sessions at the new Bayer Mission Bay campus in San Francisco.



Above: Ted and Chris at an Oakland elementary school doing the How to Think Like a (Bayer) Scientist lesson

In the Bayer Berkeley campus cafeteria an excited mix of returning and new volunteers learned how to teach a 5th Grade lesson called "How to think like a (Bayer) Scientist". A long-time UC Berkeley graduate student volunteer who helped design this lesson, Kim Sogi, taught Bayer scientists how to focus students' natural curiosity to design and test hypotheses.

Last year Bayer Emeryville scientists Ted Hoffman and Chris Bell taught this lesson to over 60 students. The pair quickly made the lesson their own by bringing goggles and lab coats to

Donations are used **where the need is greatest** and while needs change from season to season and year to year, please consider the following examples of what donations have funded in the past and *what your donation could do this year*:

\$50 covers funds for one *volunteer trip to a classroom* of 25-30 students, providing resources, like honey, glycerin, test strips, straws, etc. for a hands-on lesson.

\$100 covers the cost of one *volunteer training session* (10 volunteers) or *customized reports* for 10 teachers that impact science learning for 250-300 students.

\$250 covers the cost of one volunteer team's presentations for an *entire school year* (lesson materials for 125-150 students).

\$500 could fund a *Science Resource Event* for educators at a local science center (provide materials, books to distribute, refreshments).

\$1,000 covers *stipends* for educators to attend workshops.

\$1,500 covers funds for a "Day of Science" event for every 6th grade class at a middle school (about 200 students).

To make a donation, go online to www.crs-science.org/donate OR mail your check and the form below to: **Community Resources for Science / 1611 San Pablo Ave. Suite 10 B / Berkeley, CA 94702**

Name: _____

Address: _____

City/State/Zip: _____

Phone: _____ Email: _____

I/we would like to be acknowledged as follows: _____

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

Are You a Science Super Star?

Since positive reinforcement has been scientifically proven to work, we're excited to announce the CRS Science Super Star Program which we hope will encourage even more science learning in local classrooms. Teachers, students and schools will earn rewards and recognition for the science that they're doing and encouraging every day.

While knowledge is its own reward, we know that tangible prizes are great too. So, we're assembling a collection of goodies to give away to schools and teachers that meet the Science Super Star challenge. From bug boxes and individual gardening kits, to a whole school popsicle party or StopWaste recycling assembly, we have some fun, educational rewards in stock for participants.

The popularity of the program has grown over the first couple of months of this school year. By incorporating hands-on learning, taking science across the curriculum,

and actively pursuing resources and professional development, teachers with their students, and even whole schools, can earn recognition!

For CRS supporters, we have a wish list of prizes that we would like to be able to use as rewards:

\$500 funds an in-school assembly or a field trip (including bus fees) to a science museum or center

\$250 funds a popsicle day at a school

\$100 funds gardening kits for one class

\$50 funds a classroom set of Science Super Star stickers, pens, and bug boxes

Let's recognize those teachers and schools who are making an effort to do science in school. They can serve as role models, inspiring other teachers and schools do even more hands-on learning!

Thank you to our Partners, Donors & Supporters

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Benjamin Kriegel
Kathryn Liu
Xonie Lloyd
Robert MacDonald
Katie McKinstry
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Rachael Suczek
Claudio Vargas
Diana Velez



Keeping the Fires of Science Learning Alight

It may be Autumn, but it seems like spring because science is in full bloom in the Bay Area! Plans are revving up for the massive Bay Area Science Festival, with large and small events in every corner of the region. And, at CRS, we're helping hundreds of scientists prepare to bring hands-on science into local classrooms. We're also helping hundreds of teachers plan an exciting year of active, inquiry learning with their thousands of students.

A major focus of our work this year is on sustaining enthusiasm for science learning after the "glow" of a science experience wears off. Whether it's a field trip or summer outdoor experience, a caterpillar metamorphosis lesson or a gardening project, we'll be exploring more ways to help teachers keep the fires of science learning burning after the initial "wow" experience is over.

Why? Because research has demonstrated time and again the importance of involving young students



in science, building on their natural curiosity rather than stamping it out with rote

*Left:
Students in a
Roots, Seeds,
and Stems
Lesson*

memorization drills or withering neglect from disuse. Fundamentally, science is about asking questions and searching for answers. Some teachers shy away from science teaching because they feel they need to know "all the answers" to be effective. But, a powerful aspect of the BASIS volunteer interactions in

classrooms takes place when kids ask a question that the scientist answers with "Great question! I don't know the answer, but we can find out together." It's a reminder, and a comfort, for teachers to realize that they don't have to have all the answers, and that an important part of being an effective teacher is helping children discover how to find answers for themselves.

In fact, children are fascinated to meet the diverse, enthusiastic BASIS scientist role models who talk about their own passions and paths, and who explain that their job is essentially searching for an answer to a specific question, which sometimes just leads to even more questions! Talking with real scientists opens new ideas in young students' minds as they begin to envision their own potential future choices.

The most frequently asked question around the CRS offices lately has been: Where did summer go? Science may not help us get to the bottom of that mystery, but there are plenty more discoveries out there waiting to be explored. We appreciate your participation, as funders and teachers, volunteers and supporters, in helping to keep the magic of science alive in local schools!

--From the ED

Join the Conversation

You've probably noticed our makeover at www.crscience.org! We are thrilled to have our new website up and running, thanks to the hard work of former BASIS Program Manager, Heidi Williamson, and Mark Westwind, our web and Salesforce wizard.

You can also find us on Facebook (www.facebook.com/crscience) and Twitter (www.twitter.com/crscience, handle @crscience). You can "Like" us and "follow" us, or you can just click on the icons at the top right of our website once in a while to see the thread of science, STEM (science, technology, engineering, and mathematics), and education news without having an account.

We've also created Facebook groups for teachers (www.facebook.com/groups/CRSteachers) or volunteers (www.facebook.com/groups/BASISvolunteers) to share tips, success stories, creative ideas, and questions with their peers from throughout the East Bay.



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Left: Three students saying 'bug' during a Bayer Build-A-Bug Kindergarten lesson at an Oakland School

CRS by the Numbers

At the end of the 2010-11 school year
615 teacher members, working with over
15,000+ students
91 schools
275 scientist volunteers
283 classroom visits
7,000+ students doing hands-on science