



# COMMUNITY RESOURCES FOR SCIENCE

*practical support for great science teaching*

Volume 7, Issue 1

Newsletter, Spring 2009

## CRS IS HONORED

*UC Berkeley Chancellor's Public Service Award Given to Bob Bergman/CIC Program*

**This April, CRS was proud** to accept the U.C. Berkeley Chancellor's Public Service Award for Campus-Community Programs on behalf of Professor Robert Bergman, who was honored for his work to establish and promote our Community in the Classroom scientist role model volunteer program. Bob Bergman, who recently joined CRS's board of directors, initiated the Chemistry Department's leadership role in this program in 2003 by convening a group of Chemistry graduate students interested in classroom outreach. From this original handful of energetic volunteers, the program's presence has grown over the past six years to include more than 150 science graduate students from more than 20 departments and interest groups across the Berkeley campus. This year, CIC volunteers clocked more than 200 visits to local classrooms!

**The mission of CRS** is to build a community of educators dedicated to getting kids excited about learning through science. This community includes YOU! Whether you're a teacher, a scientist, a parent, or an informal educator, let us help you connect with elementary students, schools, or science programs to support great science teaching.

Bob Bergman has been a true champion for the program, from identifying and sponsoring a grant from the Camille and Henry Dreyfus Foundation to engaging faculty colleagues in encouraging their graduate students to participate. In addition, his moral support and presence in forums from board meetings to "Chem Kegs" is invaluable! So while we were thrilled to shake Chancellor Birgeneau's hand at the awards ceremony, we are most honored to share this recognition with Bob.

### **National Recognition**

In December, Bayer USA asked CRS to participate in their national conference on "Bridging the Diversity Gap: Introducing STEM Industries to K-12 Best Practice Program." Part of Bayer's ongoing Making Science Make Sense initiative, this conference

**Teachers, are you** changing grade levels next year? Planning to spend some time this summer developing a new science unit? We're happy to do personalized planning support over the summer. You can request information on a specific topic to be sent to you or make an appointment to come to our office to peruse our library of science activity books and binders. Just let us know at [teach@crscience.org](mailto:teach@crscience.org) or 510-527-5212.

brought together K-12 science education program leaders, stakeholders, and industry leaders from across the country to have a day-long conversation about engaging students and the community as partners in science education. CRS was honored to be one of the panelists representing elementary education program best practices!



*CRS staff and members of the CIC Campus Steering Committee accept the UC Berkeley Chancellor's Public Service Award for Campus-Community Programs on behalf of Professor Robert Bergman.*

### INSIDE

Spring Science Social	2
Be CuRious	2
CRS at CSUEB	3
Donor Thanks	3
MASERS Project	4

## TEACHERS FISH FOR RESOURCES AT THE CAL ACADEMY

*We were delighted* to be able to hold this year's spring Science Social under the living roof at the newly reopened California Academy of Sciences. More than 50 CRS members came out for this exciting year-end event on May 21.

Attendees were treated to guided tours of the Academy by staff members who described the resources available at this incredible field trip venue and gave insider tips on when and where to bring your students. And teachers were finally able to relax and see the museum from a unique perspective – student-free!

Members also heard about the many other wonderful teacher resources that the Academy offers, including themed classroom kits filled with games, specimens and other materials, workbooks and a curriculum guide; pre- and post-visit standards-based lesson plans; teacher workshops; and the free naturalist center, with science-themed books,

DVDs and other media for teachers to borrow. You can learn more about what's available, and sign up for their monthly teacher newsletter (for those invaluable tidbits of information like when field trip reservations are available), at <http://www.calacademy.org/teachers/>.

The evening ended at the Academy's Nightlife event – the place to see and be seen on a Thursday night in San Francisco. It was a whole new perspective on the rainforest, planetarium, and living roof as we joined the over-21 crowd with drinks in hand and live DJ's spinning dance tunes into the late hours.

One highlight was the drawing for the Nancy Wilson Membership Prize. CRS received a generous donation this year of a large science teaching library of books and materials from member Nancy Wilson, so we created a special benefit for one lucky member: the chance to build his or her own library of children's

science books, teaching materials and realia out of this collection. The winner, whose name was drawn from among all CRS requests made this year, was Kathy Moran of Joaquin Miller Elementary School in Oakland. Congratulations, Kathy!

The Academy was a wonderful host and we had a great time—we're really looking forward to seeing everyone again at our next Science Social in the fall. Got a fun idea for the venue? Let us know!



Teachers peer into the Phillipine Coral Reef at the new Cal Academy.

## BE CURIOUS: GOT 5 OR 10 MINUTES FOR SCIENCE?

*Feel like you don't* have enough time to bring science into your classroom daily? It doesn't have to be all or none. Why not start small? Who says science always has to be messy? Start with five or ten minutes – we'll bet you can find that much time to bring science fun into your classroom.

### Read a Science Poem

In five minutes you can read and discuss fun poems like "Water Cycle" from *Science Verse*, by Jon Scieszka and Lane Smith. Or there's *Germ Stories*, by Nobel Laureate Arthur Kornberg, written for his grandchildren as a series of bedtime stories about microbes. *BrainJuice: Science, Fresh Squeezed!*, by Carol Diggory Shields and Richard Thompson, also has poems on a host of science topics.

### Listen to Science Music

What could be more fun than learning science concepts through music? Make classroom clean-up fun by putting on science tunes. You can visit

<http://www.cdbaby.com> to find local Bay Area bands—such as The Bungee Jumpin' Cows, Banana Slug String Band, or HipScience—that specialize in science songs for kids.

### Play Tag on the Playground.

Classification tag can be played at any grade level. It's fun and reinforces science concepts, all you have to do is pick a science topic. The basics are in the sidebar—look for a full write-up in an upcoming Science NewsBlast.

### Explore our "Science Suites"

A new feature of our monthly e-mail NewsBlast will be a "Science Suite" providing practical information around a specific science theme each month. We'll look for specific grade-level examples of programs for your students, professional development for you, and websites and activities for your classroom that fit that theme and can be done quickly.

#### Classification Tag

Pick a science topic, such as "rock types," and assign one student to be "it" and the rest to be runners. Give all the runners a type or picture of a type of rock (e.g., sedimentary, igneous and metamorphic) and line them up on one side of a field. The "it" person stands in the middle of the field with a set of cards labeled with different types.

Whoever is "it" yells "sedimentary" and everyone with sedimentary rocks runs to the opposite side while trying to avoid being tagged by the "it" person; if they're tagged, they stay in the middle and try to tag other "rocks." Shuffle rocks and "it" people until it's time to stop.

*Not teaching rocks at your grade level? Try using types of elements, animals, plants, or states of matter.*

Do you have a theme you would like us to tackle? Or a helpful hint that made it easier for you to do hands-on science in your classroom? If so, send us an e-mail ([teach@crscience.org](mailto:teach@crscience.org)) or give us a call (510-527-5212) to share your inspiration.

## NEW APPROACHES TO THE SCIENCE METHODS COURSE AT CSUEB

*The CRS Professional Development Team* is bringing a revised Science Methods course to another cohort of multi-subject credential candidates at California State University East Bay this spring. The redesign was informed by our experience teaching the course last year and the new goals and techniques developed through our involvement with the national pre-credential program at University of California, Berkeley.

Our challenge in this eight-session course is to show candidates the power of science to engage elementary students in active learning and introduce them to the tools that will help them develop their own professional practice in science teaching. This year's course goals are clearly focused on specific science teaching techniques, the key articulation

points in both the K-5 State Science Standards and Health Standards, and connecting candidates with the range of science teaching and professional development resources available to teachers. For that reason, the course provides time to address barriers or challenges identified by the candidates during their current field placement experiences.

Course reading includes a three-volume Activity Reader with selected lessons that illustrate hands-on approaches to the standards, a copy of *ScienceSaurus* (an encyclopedia and glossary for elementary-level science topics), and we also provide access to CRS Teacher Membership services. As a special benefit, candidates also got to explore the teaching potential of museum resources by attending our Science Social at the California Academy of Sciences.

During the course, candidates:

- explore Inquiry and other hands-on teaching methods
- learn how to use a variety of curriculum, content background, and enrichment to develop effective 5-E lessons
- learn techniques for improving access to science for diverse student groups
- learn methods for material preparation, activity management and building students' science and communication skills
- design, teach and reflect on their own science lessons

Our students this fall have been very enthusiastic about exploring the potential of science for their classrooms. We know they'll be an asset to any community they teach in, and we hope they'll continue to part of ours!

### THANKS TO OUR GENEROUS DONORS—JUNE 2008—JUNE 2009

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#### Special Thanks

*Nancy Wilson – for a generous donation of student science books and teaching materials.*



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## MASERS BRINGS CRS TO MIDDLE SCHOOL

*Nine groups of CRS volunteers* teamed up this year with Piedmont Middle School's science teachers to conduct hands-on lessons with 7<sup>th</sup> and 8<sup>th</sup> graders. This pilot middle school project, called the Math Science and Engineering Resource Support (MASERS) Program, was born of the belief that students might be more interested in a future science career if they knew what cool things scientists get to do! Research has identified middle school as the age when many students decide that they are (or more often, are not) interested in pursuing a career in science, math or engineering.

In addition to inspiring future scientists, scientist volunteers also got experience in design engaging science lessons that align not only with their own interests but also with the more challenging middle school science content. This year's program included hands-on activities on robotics and spring constants, chemical reactions, solar energy, the physics of lasers, measuring solar wind, and bioengineering artificial heart stents.

A brown bag "Lunch with a Scientist" program also allowed scientists to talk to students informally over lunch about their own research and science career paths. Mariska Batavia, from the UC Paleontology program, spoke about getting her start doing international digs as an undergraduate, and world-renowned astronomer Dr. Geoff Marcy shared his groundbreaking work exploring the possibility of life in other solar systems.

Next year the program will expand to include the 6<sup>th</sup> grade, so if you or someone you know is interested in being a science role model for this age group, let us know. We'll be holding orientations in the early fall.

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