



# Community Resources for Science

*practical support for great science teaching*

Volume 3, Issue 2

Newsletter, Fall 2005

## Special Issue: CRS Angels

*This issue of our newsletter is dedicated to CRS's "angels," the people in our community who support and amplify our work.*

*Every non-profit organization operates in an atmosphere of optimism and hope: optimism that our work can make a difference, and hope that the future will be better because of it. This sense of possibility is nurtured by individuals in our community who believe in our organization and have made huge contributions – of money, time, inspiration, good will, and moral support – over the years. We are highlighting some of these individuals in this newsletter, but anyone reading this has helped us in some way!*

**Thanks to all of you:**

- **Foundation, corporate, and individual contributors**
- **Board members**
- **Educator Members**
- **Volunteers**
- **Vendors**
- **Schools, districts, and administrators**
- **Science and environmental education organizations**
- **Consultants and advisors**
- **Family and friends**

### **Former staff members seem to stick around!**



**Selena Chau** worked as our Resource Coordinator for more than two years, and was responsible for bringing CRS's organizational technology into the 21<sup>st</sup> century. Since the

heart of our organization is our resource database, Selena's talent for designing and communicating improvements to that system created a whole new level of capacity for CRS. In addition, Selena built CRS's website practically from scratch – and continues to work on it now – even though she's moved to New York to pursue her combined careers of web developer and dance.

Meanwhile, **Denise Davila** joined CRS's staff last fall when Corinn was on maternity leave – and has stayed on to continue providing Resource Coordinator assistance on a part-time basis. Denise's experience teaching teachers at Cal State East Bay provides us with additional insight into developing our Teacher Services.



Denise Davila and Hugo Evans

### **More tech gurus...**

From the start it was clear we needed help with making our computers talk to each other, and **Jeff Abbott** leapt into the breach to help us set up, then expand, and then improve our computers' abilities to communicate in our Preservation Park offices. When we moved to our current home-office set-up, Jeff spent hours on the phone and in person with each of us, helping work out kinks with our home networks. Recently we've turned to **Hugo Evans** (Denise's husband!) for additional help, first troubleshooting website details and more recently helping to network two computers.

### **Beyond numbers**

Behind every workshop, Science Social, resource report, or research project lies an array of infrastructure, a central part of which is accountant **Nancy Morton**. During Nancy's monthly visits she covers everything from paying the credit card bill to creating financial reports, and her help provides us with a level of confidence about our cash flow that is invaluable.

### **CRS's Board of Directors**

Every nonprofit organization has a board of directors, and CRS benefits from a very special group of people who help us with strategic planning, budget and financial oversight, policy setting, and general moral support. In addition to quarterly board meetings, our board members have initiated a new way to contribute expertise and insight to the organization. Called "board seminars," these periodic get-togethers provide an opportunity for individual board members to lead a discussion about an area of their work that is related to the elementary science education issues at the heart of CRS. Thanks to board members **Joshua Gutwill, Susan Henderson, Janet Petitpas, Michael Ranney, Ben Sanders, and Claire Schooley** for their dedication and support.

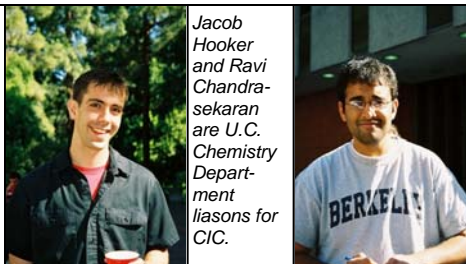
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## Science Outreach Volunteers

The Community in the Classroom Scientist Volunteer program has over 60 active volunteers who are giving their time and knowledge to elementary classrooms in Alameda County. In addition to these, we'd like to thank a few people who are working behind the scenes to make this program grow and run smoothly.

Professor **Robert Bergman** of the University of California, School of Chemistry has been one of our biggest boosters. He introduced the program to the Graduate Life Committee and has been working with fellow faculty members to support graduate students volunteering their time to do lessons in the classrooms. Bob also supported us in applying for funding to the Dreyfus Special Grant Program for the Chemical Sciences which has helped us pilot a new partnership between graduate students in the Chemistry Department and teachers at



Jacob Hooker and Ravi Chandrasekaran are U.C. Chemistry Department liaisons for CIC.

Cragmont Elementary in Berkeley.

Also at the Department of Chemistry are **Ravi Chandrasekaran** and **Jacob Hooker** who have been working to recruit new volunteers to the CIC program from the department. They make having orientations and events on campus run smoothly.

We're grateful to **Alan Poon** and **Rick Diamond** who each sponsored a lunch time session with their groups at the Lawrence Berkeley National Laboratories.

We have new volunteers from LBNL working on their lesson plans and getting ready to go into classrooms this winter.

Volunteers **Delphine Farmer** and **Rebecca Roberts** tied for the record of most number of classrooms visited during the last school year. Coincidentally both of them offer programs for second grade! Delphine got dirty with the kids talking about soils and Rebecca had the kids exploring the science of sound.

All are welcome at our monthly orientations in downtown Berkeley (thanks to **Barbara Bowman** of the Berkeley School Volunteers); and if you know of a group of people at work or school who might like to participate, we can also bring the program to you! You can find more information about volunteering on our website [www.crsceience.org](http://www.crsceience.org), or give us a call at 510-654-6433.

## Be CuRious: In the Kitchen



The holidays are upon us! It is a perfect time to get together with friends and family to enjoy a hearty meal and sweet treats. Food and cooking are also perfect vehicles to do science, math and social studies. Finding out about how our favorite foods are made is fascinating and informative.

A recipe is essentially the protocol of an experiment that can be tested and reproduced by another scientist. Before the recipe was finalized there was a lot of experimentation to test the way the ingredients reacted with each other and what quantities to use. Just think of all the trials that didn't taste good or didn't

turn out as expected. Science is like that. The "mistakes" tell you as much or more about what is going on.

Pick a favorite recipe or two and have students experiment by changing some of the variables in the recipe. Cookies are a perfect way to test kids' math and observation skills. Have them double or halve the recipe. Change the amount or type of sugar or flour used. What happened in the different experiments? What if you used baking powder instead of baking soda? What if you used shortening instead of butter, or vice-versa?

Make some apple sauce. In one pot add the sugar at the end of the cooking. In the other pot, add the sugar in the beginning. In a third pot, add the sugar half way through cooking. What happened? Describe the differences.

Try making breads with different types of flour. Will they all rise the same? Taste the same? Have the same texture? What happens if you add more yeast? Find out about how gluten and yeast make for good (or not so good) bread.

How can you tell a hard boiled egg from a

raw egg? Can you mix oil and water? An egg can help you do it in a hollandaise sauce.

Did you know that onions and garlic and other spices keep bacteria from growing in food? They not only taste good in our recipes, but help to keep us from getting sick. This was especially important before refrigeration.

To explore more about the science of food, check out the following resources:

- *The Inquistive Cook* by Anne Gardiner and Sue Wilson with the Exploratorium
- [www.exploratorium.edu/cooking/](http://www.exploratorium.edu/cooking/)
- *Kitchen Science* by Howard Hillman
- *On Food and Cooking: the Science and Lore of the Kitchen* and *The Curious Cook* by Howard Hillman
- *Good Eats* with Alton Brown – books or on TV on the Food Network

Or contact CRS for some experiments and the science behind them.

## Educators at the Heart of CRS

Many different individuals and education organizations support our program of direct services to teachers. By donating their time, energy, and expertise, these educators help us develop better programs and deliver our services.

The professional development workshops CRS provides have benefited from collaboration with educators across the county. Several different education organizations have provided locations, outreach, and evaluation information for our workshops, including the **Oakland Zoo, The Watershed Project, Chabot Space and Science Center, the Bay Area Science Project, and StopWaste.org**. We are especially grateful to **Cora Carey, Jen Brown, Stan Fukunaga, Claudio Vargas, and Susan Kattchee** at these organizations for their help.

Over the years we have been lucky to have both the expertise and generous friendship of **Susan Bellone** and

**Sherry Johnson**, two exceptionally talented teachers and professional developers from Castro Valley. This year our joint exploration of teachers' needs, workshop structure, and professional development techniques, will become more established as Susie and Sherry help us develop and deliver a new workshop on Teaching Science with Inquiry. They have also agreed to observe our other workshops to help us improve and refine our support for building confidence in science teaching, planning science lessons with integrated goals, and understanding student work in science.

Our Teacher Socials, where teachers come together to learn more about spe-

cific informal education programs, see hands-on activities modeled, and share ideas, have also benefited from our community's generosity. Teacher Socials have been hosted at **Children's Hospital Oakland Research Institute, Chabot Space and Science Center, Oakland Museum, Lawrence Hall of Science, Tilden Nature Center, Oakland Zoo**, and the **Irecycle@School** education center. Several dedicated teacher members are loyal attendees of these events, including **Paulette Smith, Carolyn Dobson, Dennis Hall, Sharon Allen, and Gloria Holleman**, as well as dedicated community educators like **Alex Madonik**.



Learning about insect programs at a recent Social at the Oakland Zoo

The support of these educators makes our work both easier and more fun – **thank you!**

## Thanks to our Donors – January through October 2005

### Thanks to Copy Central

For the past two years Copy Central in Emeryville (Christie Avenue at Powell) has been Corinn's second office. **Mark, James** and **Joe** have always been friendly and helpful and made her feel at home. They go the extra mile to make sure that their customers are well taken care of, from buying bandaids for a massive paper cut, to carrying boxes of copies to the car so that the pregnant Corinn didn't have to, and entertaining young Afton when she gets bored. **We are extremely grateful to them for donating the printing of this issue of the newsletter!**



### Foundation & Corporate Donors

S. D. Bechtel, Jr. Foundation  
Cisco Systems Foundation  
Dreyer's Grand Ice Cream Foundation  
Camille and Henry Dreyfus Foundation  
Environmental Protection Agency  
Oracle Corporation  
Stopwaste.org  
Wayne and Gladys Valley Foundation  
Washington Mutual Foundation  
Wells Fargo Foundation

### Your Contributions Say Thanks to Teachers

*While this issue is about thanking you for your support of CRS, we'd also like to point out that making a contribution to CRS is a way of providing direct support to teachers for science professional development. Please note on our pledge forms that you may recognize a particular teacher and we will send a thank you in your name.*

**Leader's Circle \$1,000+**  
Jim Gleick and Cynthia Crossen  
Alba Witkin

**Sustainers \$500 - \$1,000**  
Jan and Mara Leeman

**Sponsors \$250 - \$500**  
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Elna Norman  
Janet Petitpas and John Penny  
Ben and Ann Marie Sanders

**Supporters \$100 - \$250**  
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Rita Franklin  
Michael Ranney and Shelley Million  
Michael D. Roberts\*  
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**Friends up to \$50**  
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Debbie and Nelson Meeks  
Nancy Morton  
Rosemarie Petitpas  
Gordon Shaw  
Joan D. Teller and Samuel H. Teller  
Dorothy Tregear\*  
David Wight  
Deb and Jeff Yoder

*\*In memory of Arthur Selleck*



Check us out online:

[www.crsscience.org](http://www.crsscience.org)

<b>Member News</b>		<b>CRS Staff and Board</b>
<p><i><b>Just the facts, please!</b></i></p> <p>You know that CRS serves elementary public school teachers in Alameda County, but you might not know that....</p> <p>...CRS currently has more than <b>400 members</b>, including members from informal science and environmental education organizations. Of those 400, we include <b>16 whole school members</b>.</p> <p>...In school year 2004-05, members made nearly <b>1,100 requests</b> for information and assistance.</p> <p>...Last school year, our Community in the Classroom scientist volunteers visited <b>83 classrooms</b>.</p>	<p>...CRS provided workshops—both stand-alone workshops on specific science teaching topics and workshop series for whole schools—for <b>169 teachers</b> in 2004-05, and provided membership orientation workshops for more than <b>125</b> more teachers.</p> <p>...Since 1997 we've served more than <b>1,500 educators</b> in more than <b>100 schools</b> across the county!</p> <p><b>The mission of CRS</b> is to build a community of educators dedicated to getting kids excited about learning through science. This community includes <b>YOU!</b> 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.</p>	<p><u><b>Staff</b></u></p> <p>Anne Jennings &amp; Nicki Norman,  <i>Co-Directors</i>            Corinn Brown, <i>Program Coordinator</i>            Denise Davila, <i>Program Support</i>            Nancy Morton, <i>Accountant</i>            Katherine Langer, <i>Cal in Berkeley Intern</i></p> <p><u><b>Board</b></u></p> <p>Susan Henderson, <i>President</i>            Joshua Gutwill, <i>Vice President</i>            Janet Petitpas, <i>Treasurer</i>            Anne Jennings            Nicki Norman            Michael Ranney            Ben Sanders            Claire Schooley</p>