In a conference room on a Friday morning, nearly a dozen Bayer scientists and engineers take time out of their busy schedules to earnestly concentrate on blowing up water balloons through bendy straws, taping them to index cards with bottle caps for wheels, and watching them fly, all in the name of science.

The beneficiaries of this “research” will be classrooms of thrilled, eager 7 year olds.

This year, Bayer Pharmaceuticals is partnering with Community Resources for Science to extend their community impact beyond the medicines that have made them a household name. Bayer employees will be going into elementary school classrooms, armed with engaging lessons and materials to teach hands-on, interactive science.

“Bayer can do a lot of things in the community…and I wanted to be a part of that from the inside,” said Xonie Lloyd, a health, environment, and safety specialist in Emeryville who participated in this hands-on encounter with a balloon rocket car.

This enthusiasm and eagerness to get involved in the community is common on both Bayer campuses. Employees at Bayer Emeryville will be teaching Newton’s Third Law of action and equal and opposite reaction to second graders with the construction of balloon rocket cars. Employees at Bayer in Berkeley—via materials like Styrofoam plates, Plexiglass, and tissue paper—will illustrate the seemingly magical capabilities of static electricity to fourth graders.

“I just really like young people…and the whole concept of getting them inspired about science,” Lloyd said.

Each Bayer teaching team has pledged to present their lesson in at least 4 elementary school classrooms this year. With over half a dozen teams formed after two months, the collaboration already has the potential of reaching hundreds of students in schools across the East Bay.

“I was so excited to join this program from the moment I heard about the opportunity. Having two kids of my own, I feel more than ever, that actively getting involved in our youth’s education is the best way to promote enthusiasm and get kids excited about learning,” said Laura Humphreys, an assistant process engineer at Bayer in Berkeley. “Having outside speakers, such as Bayer employees, coming in to schools to teach helps to add a valuable outside perspective to what the students are learning in school.”

CRS scientist volunteers are motivated by the indisputable power of real-life scientists in the classroom sharing a love of science and serving as role models.

“As a post-grad of science and as a parent who is involved in the Berkeley public school system, I see a huge opportunity for local biotech and pharma to reach out to the young children at the elementary schools, teach them about the fun of science, and how it can connect to their daily life,” said Angela Byrne, a Bayer senior manager in quality assurance. “Hopefully this will encourage more students to take science further in their career,” she added.

Eager first graders participate in a CIC activity.
The heroic rescue of the Chilean miners has us thinking about the science and history of mining in California and around the world. NOVA just released an hour long documentary about the rescue of the 33 men who were stranded more than 2000 feet (1/2 mile) underground for 69 days. You and your students can watch online at http://www.pbs.org/wgbh/nova/tech/emergency-mine-rescue.html. The show features the drilling and some of the nutritional and emotional issues faced by the miners.

Closer to home, you can explore California’s gold mining history by taking a fieldtrip to The Oakland Museum (www.museumca.org). Learn about panning for gold and the open-pit mining done in California by going to Coloma where the Gold Rush began - Marshall Gold Discovery State Historic Park (http://www.parks.ca.gov/?page_id=484). Black Diamond Mine Regional Reserve in Antioch (www.ebparks.org) is the site of the first and biggest coal mine in California. When the coal ran out, they mined sand for glassmaking. In San Jose you can visit the Almaden Quicksilver County Park (http://www.sccgov.org/portal/site/parks/) and explore its history of Mercury mining. People coming to California to find gold and silver instead discovered Borax in Death Valley and the surrounding areas. http://www.nps.gov/history/museum/exhibits/death_valley/mining_ranching.html

There are so many different natural resources that are mined in the US and around the world from rock salt to coal to every kind of metal imaginable. Some mines are huge open pits and others are holes and tunnels leading deep underground. The Mineral Information Institute (www.mii.org) offers a wealth of information on all types of mineral mining in the United States. http://geology.com/ has maps, articles and more about all aspects of geology.

Wanting more information on a mining topic or some other science topic? Send your request to CRS@crscience.org or log-on to our self-service portal and database at http://www.crscience.org/database/

For an online version of our newsletter, with ‘clickable links’ to the websites mentioned above, go to www.crscience.org/newsletter
We are pleased to announce that for the 2010-2011 school year, CRS was selected out of a highly competitive pool of 67 proposals requesting a total of almost $2 million in funding, to receive a grant from the UC Berkeley Chancellor’s Community Partnership Fund. The awards recognize programs that “significantly enhance the quality of life in Berkeley while strengthening partnerships between the university and community.” Over 440 classroom lessons have been taught in Berkeley public schools by CIC volunteers during the past three years!
CRS 2009-10 Results by the Numbers

- Served 500 teachers, impacting classroom learning for 12,000 students.
- Responded to 700 teacher requests for CRS support in the form of field trip information, classroom enrichment, lesson activities, websites, etc.
- Worked with over 200 scientist volunteers!
- Reached over 5,000 students with more than 200 Community in the Classroom presentations.
- Teachers report being “more informed about science resources” (87%), “more confident” about teaching science (75%), and that their students respond positively to science experiences (97%)
- Our 2010-11 goals are even more ambitious!

Teachers, We’re At Your Service

At CRS we specialize in finding science resources for your classroom, cutting through the clutter to get you the information you need, when you need it.

We connect with all the Bay Area science support organizations to make sure you have the most up-to-date information about fieldtrips, in-class programs, professional development opportunities, summer institutes, program deadlines, grant opportunities, websites, materials and more. We’ll do the research so you don’t have to!

Make sure we have your current email so you’ll get our monthly email updates, too.

To make a request, go to www.CRScience.org or email your request to us at CRS@crscience.org

Give the gift of CRS membership to a fellow East Bay teacher! Memberships for individual teachers are $20 per year. Call, fax, or email us and we’ll get you started!