

# Calendar

## Nerd Track

### Chem Expo 2000 in Balboa Park

Those of us who fell in love with the arts or the study of history can only observe from a distance those who fell for chemistry.

"Well, I loved baking when I was a little girl, and chemistry has a lot to do with baking," says Laura Weston, a lab supervisor at San Diego-based Dura Pharmaceuticals. "You have to measure your ingredients properly. Changing them just a little can change completely what you come out with. If you put in baking soda instead of baking powder, it's a disaster."

Suzanne Blackburn, a senior chemist for the Air Pollution Control District of San Diego County, says that lab experiments enticed her into making chemistry a career. "It was fun to make them work out and get the product that you were trying to get." When she is reminded that for some people the lab was a place of terror not allure, she replies, "I was a math major before I was a chemistry major, so I was already on the nerd track."

For the past dozen years, Blackburn has helped organize the annual Chem Expo, which is always held during National Chemistry Week in Balboa Park. For the past three years, Weston has been its coordinator.

A science fair of sorts, Chem Expo features displays and demonstrations and usually attracts 1200 to 1500 students — kindergartners through 12th graders, as well as some college students. Its purpose, according to Weston, is "to introduce people to chemistry and how it applies to their lives."

"Chemistry isn't just a class you

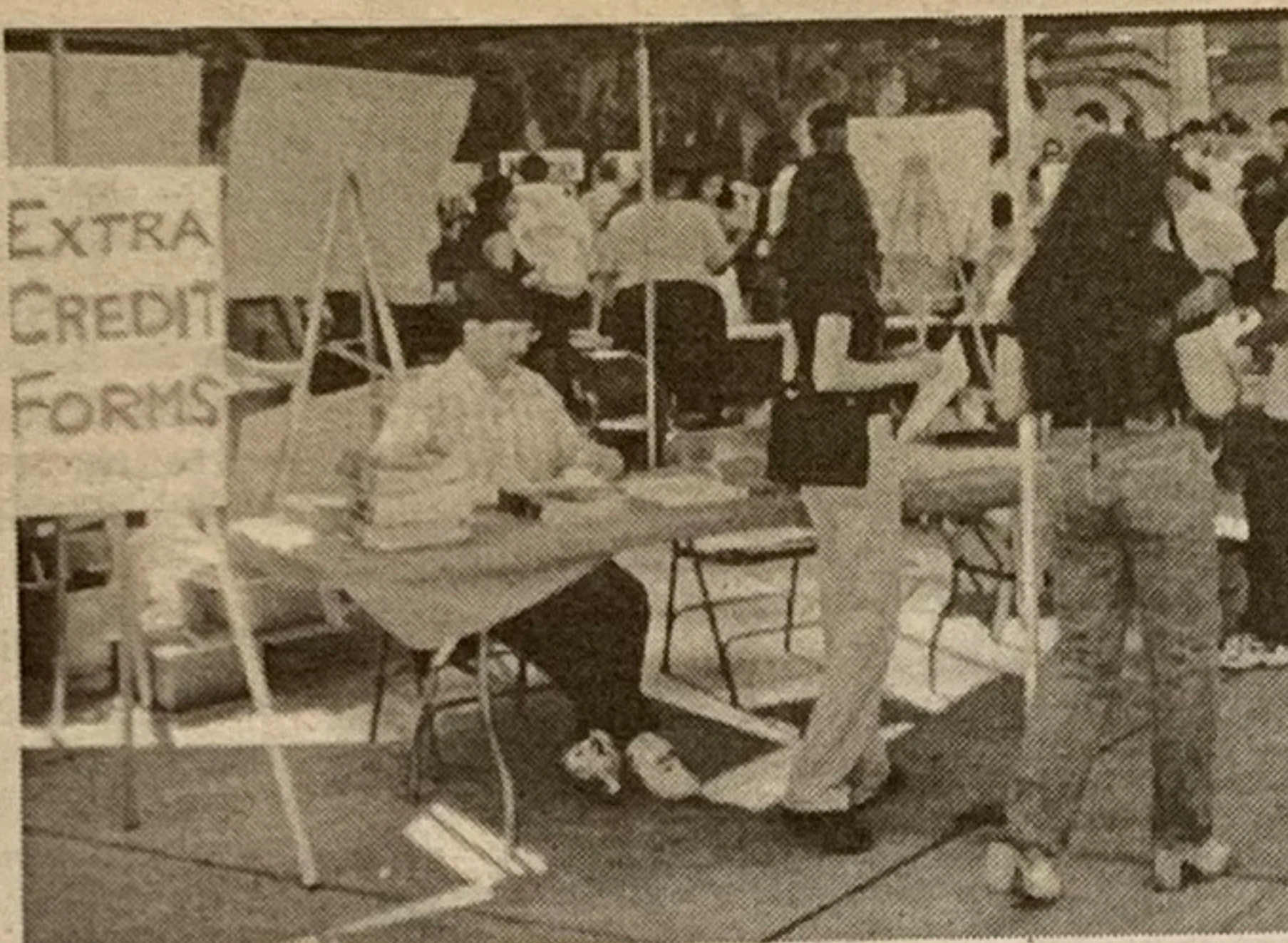


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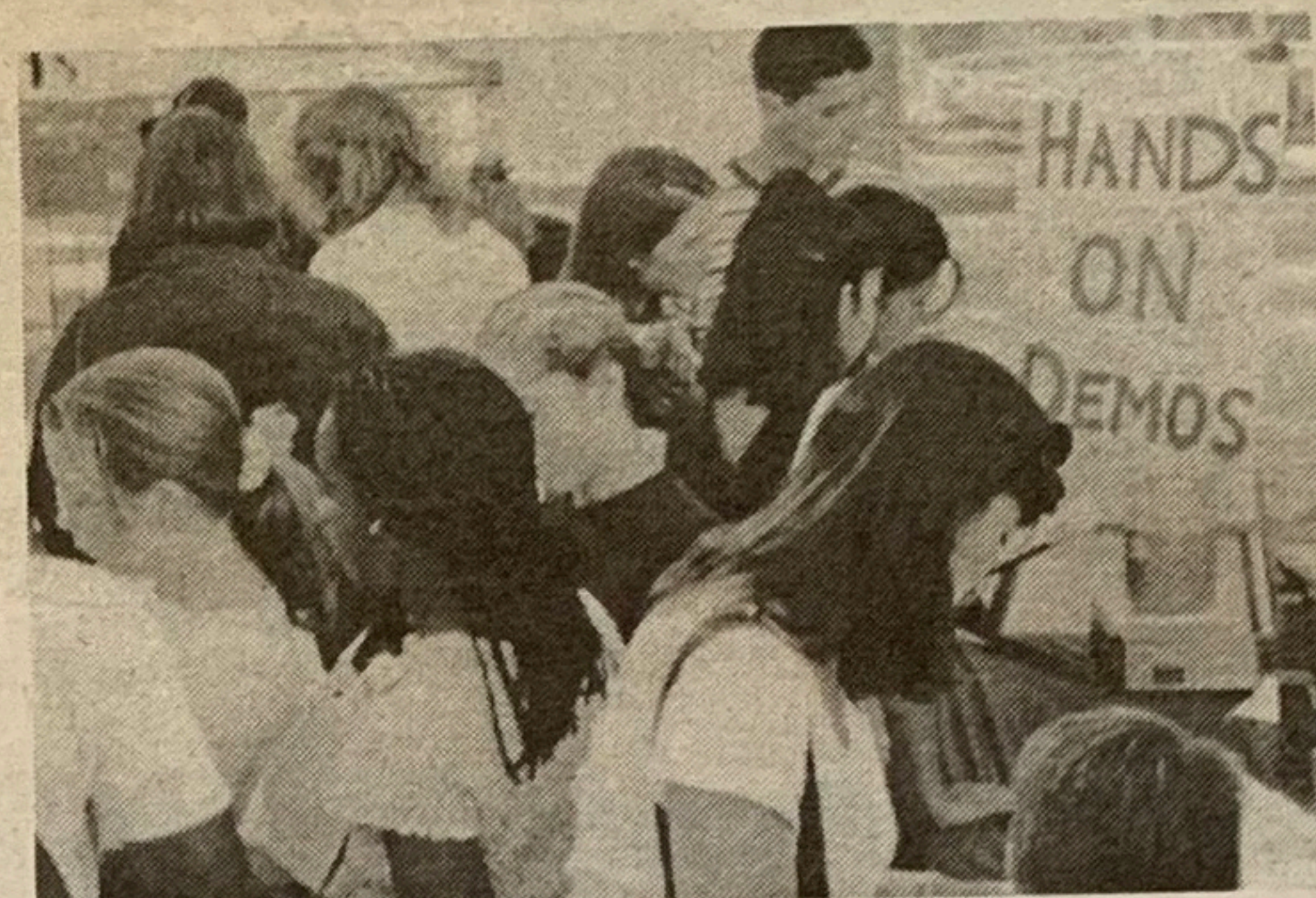


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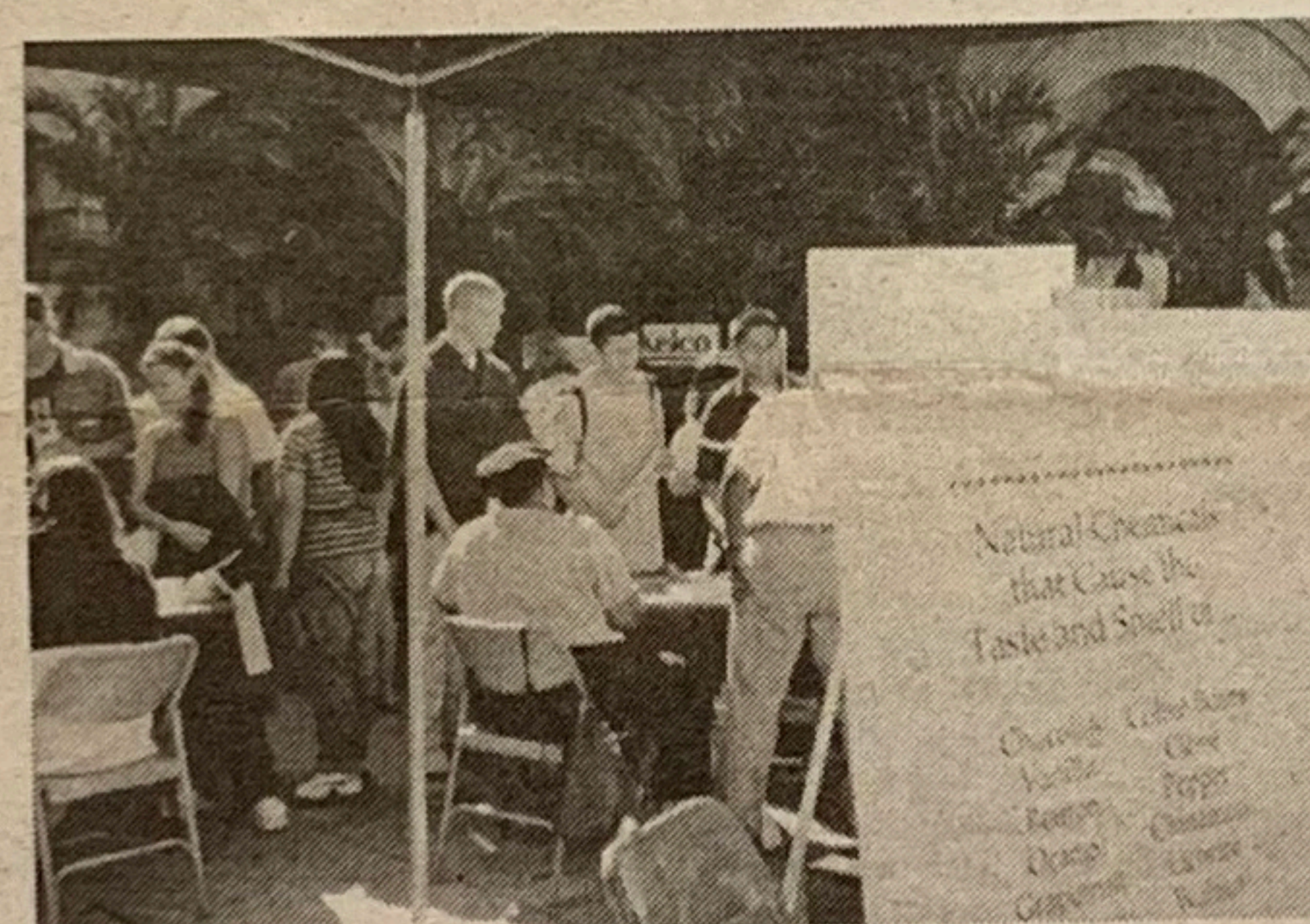


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Chem Expo '99



Suzanne Blackburn

PHOTOGRAPH BY DAVE ALLEN

take," she says. This year's theme, chosen for the whole nation by the American Chemical Society's task force, is Kitchen Chemistry. Says Blackburn, who served on that task force, "We'll have long tables with different jars of foods, like oranges and chocolate and bananas, and there will be signs naming all the chemicals that make them smell or taste the way they do. Everybody kind of freaks out on that one. They look at all these big, long, chemical words, and it's like, 'Wow! These are all in there naturally.'"

The chemical makeup of foods is the reason why food chemists can duplicate them, says Weston, who is annoyed by the way marketers sometimes try to take advantage of people's ignorance of chemistry. "All natural! No chemicals!" she quotes them. "Please! Chemicals are as natural as any other things that we call natural. Chemicals are not evil. The air you breathe is made up of chemicals."

CP Kelco is one of the local companies participating in Chem Expo. It will feature "slime-making." "A long time ago, I used to work there," says Blackburn. "You know the big, long X word that's on food labels? Xanthan gum? They make tons and tons and tons of that right downtown. It's a thickener

that goes into all kinds of foods" — bottled salad dressings, most prominently.

At the CP Kelco table, according to Blackburn, there will be a "huge" exhibit of "packages from all over the world in all the different languages showing all the different foods that Xanthan gum is in."

Weston says that, with this substance, kids will "actually make a quarter cup of 'slime' right there."

At another table, she says, kids will have an opportunity to make peanut brittle. "You melt the sugar, it caramelizes, and there's chemistry involved with that, because it changes structure. And then you add the baking soda, and it bubbles up. And then the peanuts." When it hardens, those who haven't had their fill of slime will be able to eat some.

"We'll also have a demonstration where we take cereal and stir it up. When it's dissolved, we take a magnet, and you can actually pull the iron right out of it."

Blackburn explains about another experiment, called dancing spaghetti, to be executed on stage by one of the participating college groups: "They'll take a long cylinder containing baking soda, vinegar, and sticks of hard

spaghetti. And the bubbles make the spaghetti go up and down."

In keeping with the Kitchen Chemistry theme, the American Chemical Society has incorporated a commendable idea into this year's observations of National Chemistry Week. It's a country-wide food drive. In San Diego, those who come to Chem Expo are asked to bring canned foods and other nonperishable items for the San Diego Food Bank and Food Pantry.

Predictably, the nerdy chemists who organized this part of the program could not resist labeling it with a bad pun: "Chemists Reacting To Hunger."

On the American Chemical Society's website, there is another nerdy touch. In the list of ways to celebrate the occasion, the first one they suggest is this: "Answer your telephone announcing, 'It's National Chemistry Week.'"

— Jeanne Schinto

**Chem Expo 2000**  
**Saturday, November 4**  
**10:00 a.m. to 2:00 p.m.**  
**Casa del Prado, Balboa Park**  
**Free**  
**Info: (619) 687-5570**  
**[www.acusd.edu/chemdept/ncw.html](http://www.acusd.edu/chemdept/ncw.html)**

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