

Sunday, January 24, 1999

A Cool Course

BY JAIME JORDANSIR

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ARLINGTON — As she demonstrated all the neat things she could do with her digital camera and yogurt bacteria, 29-year old Lon Lane was a hit all over again. "It's like having your microscope attached to the television," said Lane, a teacher at The Oak Ridge School in Arlington. Lane and 16 other Metroplex teachers switched gears yesterday — as they have every Saturday for the past five months — to become students. **They raised their hands answered questions and, like Lane, eagerly shared their experiences as part of the Empowering Science Teachers of Texas program, which is operated under the University of Texas at Arlington's Regional Collaborative for Excellence in Science Teaching.** The yearlong professional development program, funded by corporate grants and local school districts, trains middle school teachers in hands-on approaches to physics and chemistry. "At an introductory level, we're helping them understand some very difficult concepts," said Judy Reinhartz a professor at the Center for Professional Teacher Education at UT-Arlington who teaches the classes. Sheryl Schickedanz, an eighth grade teacher at H.E Stevens Middle School in Crowley, said she thinks hands-on techniques will become increasingly important as the new millennium approaches. "When you can do something hands-on like this, you get every student involved," she said. "With our global economy becoming so diverse, you have to have other outlets for students that don't fit the traditional model. Really, I think that's where education is going." In her classes, Schickedanz demonstrates Newton's Laws using hover boards.

She makes wave machines for \$20—they would cost \$400 from mail-order companies. Yesterday, in an experiment demonstrating force and power, she learned how to make ice cream out of milk, vanilla, dry ice and a pair of empty coffee cans. Lane's eyes got big when she tasted her delicious treat. "Mmm, good," she said. Lane later learned she would have to run 676 flights of stairs to burn off the calories from the ice cream she and her group made and ate. She'll teach the same experiment to her classes this semester. Illustrating physical science principles through demonstrations has enabled Schickedanz and other teachers to teach students who struggle with textbook reading. Barbara Taylor, an eighth-grade teacher at Morningside Middle School in Font Worth, said a hands-on approach in her classes helped her reach a failing student she suspected was involved with gangs. She told the student that he could salvage his grade by doing a great science project. "He went home, got his folks involved and won best of show," Taylor said. "He put total energy into that project. I was really encouraged by it—how science, at least for that year, reclaimed him. "The teachers in the program become missionaries of sorts, disseminating creative teaching methods to their colleagues. Each teacher in the program is required to hold monthly classes with at least five other teachers. Through networking, 100 teachers are exposed to new concepts. The teachers are required to devote 130 hours to the Saturday classes. They also must spend at least 20 additional hours teaching their group of five other teachers. In return, the teachers receive 6 credit hours in graduate degree work, a digital camera, a probe, a graphing calculator, a materials budget and a small stipend. Johnny Stephens, a high school math and science teacher in Palmer, gets none of these perks. He went through the first year of the program five years ago. Yet he keeps coming back for more, helping Reinhartz instruct the class. On his way to class yesterday he said he was thinking that through teaching the teachers he can reach more than 2,000 students. "It's incredible how much you can do with a program like this," he said. "That's why I come back. That and the ice cream."

[<Back>](#) [<Dr. Jbeily's Homepage>](#)
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