

Welcome to paperless classroom

By Kristin Butler
STAFF WRITER

FREMONT — A mix of volunteer scientists, dedicated teachers and researchers from a Xerox think tank have combined forces to propel local schools one step closer to a paperless classroom.

They are all involved with LiveBoard.

LiveBoard is a 486 computer with a 67-inch Liquid Display Screen that makes the average big-screen television look small and the everyday chalkboard seem passe.

Originally developed for companies as a conferencing tool for meetings among dispersed groups, the new telecommunications technology can also promote interactive learning among students, teachers and the world.

LiveBoard combines the strengths of many tools already used in the classroom.

First, it acts as a giant computer, equipped to present pictures, sound and video through a CD-ROM.

Also, it works like a black- or white-board. With an infrared pen, teachers and students can write next to and on top of the displayed images, move them around or erase them without a trace of chalk dust.

LiveBoard also puts the classroom on

the information superhighway by connecting to other computers and LiveBoards across campus or across the world, providing real-time communication that transcends geographical distance.

All these features can combine to decrease the amount of time teachers spend planning lessons while increasing the

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amount of time their students spend learning. It may also be the first step toward a time when students use computers rather than paper and pencils.

Local kids are already getting a taste of this new technology because of the efforts of Math/Science Nucleus and Xerox.

Liveworks, a Xerox company, developed LiveBoard out of the Ubiquitous Computing project. The concept sprouted from the minds of computer wizards at Xerox's Palo Alto Research Center, or PARC,

which developed the personal computer, laser printers and the mouse.

Xerox donated an early version of LiveBoard to Math-Science Nucleus, a local nonprofit organization, two years ago.

In December, Xerox donated a second LiveBoard to Math-Science Nucleus, which loaned it for a month to Mission Valley Elementary School in Fremont.

This summer, the organization has paid two teachers and several high school students to create a series of science lessons that use the LiveBoard along with written labs and hands-on activities.

Christina Souza, a science teacher at Lincoln Elementary, and Joy Gomes, a teacher at Holy Spirit School, have added their efforts to those of Mark Chow, a video producer and director at the Xerox Palo Alto Research Center. Chow has donated his time and expertise with LiveBoard to Math-Science Nucleus since February.

The combined knowledge of teaching and technology has led to a program that its creators hope will entice students to learn while improving teachers ability to instruct.

Joyce Blueford, president of Math-Sci-

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ALAN GRETH — Star

Lincoln Elementary School teacher Christina Souza holds a pointer she uses on the giant Xerox LiveBoard (behind her) to help her teach science. The LiveBoard can be used like a computer monitor or a chalkboard.

Paperless: Computer helps teacher in classroom

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ence Nucleus, said that one of the best things about LiveBoard is that its concepts are already familiar to teachers.

"Many people are trying to insert technology into the classroom, changing the way the classroom works," said Blueford.

"Whereas the LiveBoard enhances the way the teacher already works."

Blueford, a geologist, established Math-Science Nucleus in 1982 after spending two years adding her knowledge of science to Blacow Elementary's science classes.

In 1980, she began to use funds from the U.S. Geological Survey, Minority Participation in the Earth Science Program to train college students from low-income backgrounds in science. She then sent them into elementary schools to spark kids' interest in the field.

The goal of Math-Science Nucleus, 4009 Pestana Place, Fremont, has been to develop the minds of children so that they can think about science in their everyday lives.

Its office is filled with magnetic marbles, animal puppets, beakers, rocks and books. It is a science teacher's dream, and provides hands-on experiences for science students of all ages.

The organization worked with Blacow Elementary's science classes until 1989 and has been active in helping to create Fremont Unified School District science curriculum. Many local schools have used materials developed by the organization and since 1982, the Newark Unified School District has been implementing such lesson plans and materials in all of their schools.

Math-Science Nucleus also trains teachers to use their materials and plans to continue to do so by offering training on the LiveBoard. Teachers can earn credit for participating in the classes through Cal-State Hayward.

Blueford also said she recently helped the Fremont Unified School District write a grant to purchase its own LiveBoard.

Linda Garbarino, director of educational resources for the Fremont district, said the LiveBoard will be used at Kennedy High School.