



The staircase (above) leads to the second level of the new Elementary Institute of Science, which will open early in the new year. Below, Jahman Lockett (left) and Marquest Jackson worked on dissecting a squid in biology class in the old building. *Nelvin Cepeda / Union-Tribune photos*

## Young scientists' dream



**\$6 million facility had its beginnings when some fish died**

By Deborah Ensor  
STAFF WRITER

This is a story about how a few dead fish turned into a \$6 million dream. It started 38 years ago with a school teacher named Tom Watts. In his first year teaching at Kennedy Elementary, Watts was given an old 10-gallon aquarium by a janitor. Watts promptly filled it with fish, but soon all

the fish died. His students wanted to know why, so a lesson on fish diseases began and a science club, called the Elementary Institute of Science, was born. A few years later, the club moved into a condemned house on 51st Street donated by the city. In 1995, it moved into a 5,000-square-foot building on Euclid Street. About 300 eager young scientists, ages 7 to 13, came each year to dissect squid and frogs and insects, to mix potions and watch chemical reactions, to take computers apart and discover where the brains are.

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But still, there wasn't enough space for everyone. A waiting list of hundreds of children grew, and so did a dream: to build a grand facility with laboratories and libraries, astronomy rooms and dark-rooms. Students, teachers, board members all started a grass-roots, fund-raising campaign, raising \$6 million.

From these humble beginnings, a 15,000-square-foot facility, a cornucopia of buildings in lavender and lime green, adobe pink and sky blue, is about to open.

It sits on the corner of Euclid and Market streets, like a beacon of creativity, says executive director Doris Anderson, just waiting to be filled with eager young scientists when it opens early next year.

Situated in southeastern San Diego's cultural hub, it is, she said, an impressive addition to the nearby Malcolm X Library and the Tubman-Chavez Cultural Center.

"It's so much more of a creative environment, so unique and fun," Anderson said of the new science building. "If we surround the children with beautiful colors, create a beautiful new space to work, they will be more stimulated, more creative, and they won't want to leave."

Anderson tours the new facility, pointing out where giant tile installations of river life and bumblebees will be. She admires the sweeping spiral staircases and rotundas, the spot where the 500-gallon aquarium will go, even the bathrooms and water fountains, ablaze with color and light.

There'll be nine classrooms, including a technology suite, a photography studio and dark-room, and an astronomy lab with constellations painted on the ceiling.

There will be a lecture theater with 100 seats, an outdoor play area, a library, laboratories for geology and natural sciences.

Anderson said the board members had long dreamed of building such a facility, but always figured the organization was too small. They operate on a budget of less than \$500,000 a year.

#### Ideas take form

But at a meeting with the Jacobs Family Foundation, which runs an organization in the community called the Jacobs Center for Non-Profit Innovation, those grand ideas began to take form.

"They asked us, what is it you really want to do?" Anderson said. "I told them, 'You don't really want to know. It'll scare you.'"

But, instead, it inspired them. And in 1997, the Jacobs family gave the lead gift of \$1 million.

The institute raised \$5 million, in increments ranging from gifts of \$2 to \$1 million. Even the children helped. Members of the institute's youth group wrote proposals to companies and organizations, inviting potential donors in for tours and to talk to them about the project, raising \$220,000. Even when adults held discussions with potential donors, students were on hand to talk about the impact EIS has in their lives.

The city of San Diego built the giant retaining wall around the new building, worth about \$750,000.

The institute teaches after-school programs in biology, natural sciences, computer sciences and engineering.

All of the teachers are either juniors and seniors at local universities or are working toward graduate degrees.

"They come with such high energy, enthusiasm, excitement," Anderson said. "When you use university students, it's almost like the child is getting the same teaching as they are. They are getting up-to-date, right on the edge information."

Teachers like Abe Camacho, a graduate of California Polytechnic State University who is heading to San Diego State for a master's degree in electrical engineering. On a recent afternoon, he had six eager youngsters peering into the heart of a computer.

#### Dissecting stuff

"When I was a kid, I always liked science, but... every year we did the same things," Camacho said. "Here, I can teach things the kids want to know, stuff that I always wanted to know when I was a kid."

So the kids dissect stuff, and they watch stuff fizz and boil. They learn the difference between a real diamond and a fake one, between a herbivore and a carnivore, how to navigate the fun to learn here."

"It's fun to learn here," says Noah Williams, 7. "We get to learn about what's inside a computer, how it remembers stuff, why it has a brain. And we learn about nature outside and about endangered animals. And we get more attention here than at school."

More attention because the classes are kept small, and all students get to do experiments themselves.

Because, says Anderson, science is more fun if you can reach out and touch it, if you can see it and feel it and understand it.

"At school, we read the books," says Ashley Stevens, a 10-year-old with plans to be a biologist and study animals. "Here, we get to do hands-on."

The entire philosophy of EIS is hands-on science. So even when the program moves to its new building, classes will still be limited to 10 children.

"We are never going to lose that quality," Anderson said. "If kids don't get to put their hands on, it's not worth doing."

For Elena Rudd, who got her bachelor's degree in biology and ecology at UCSD, teaching at the institute is definitely worthwhile.

#### Sharing science

"I'm so in love with science," she said. "I just like to be able to share it with them and excite them about it."

And this age range is perfect. When children's curiosity and love of nature are at their peak, Rudd said.

"These guys are so enthusiastic about what they are doing," she said. "It's a good time to catch them; so they'll all become little scientists."

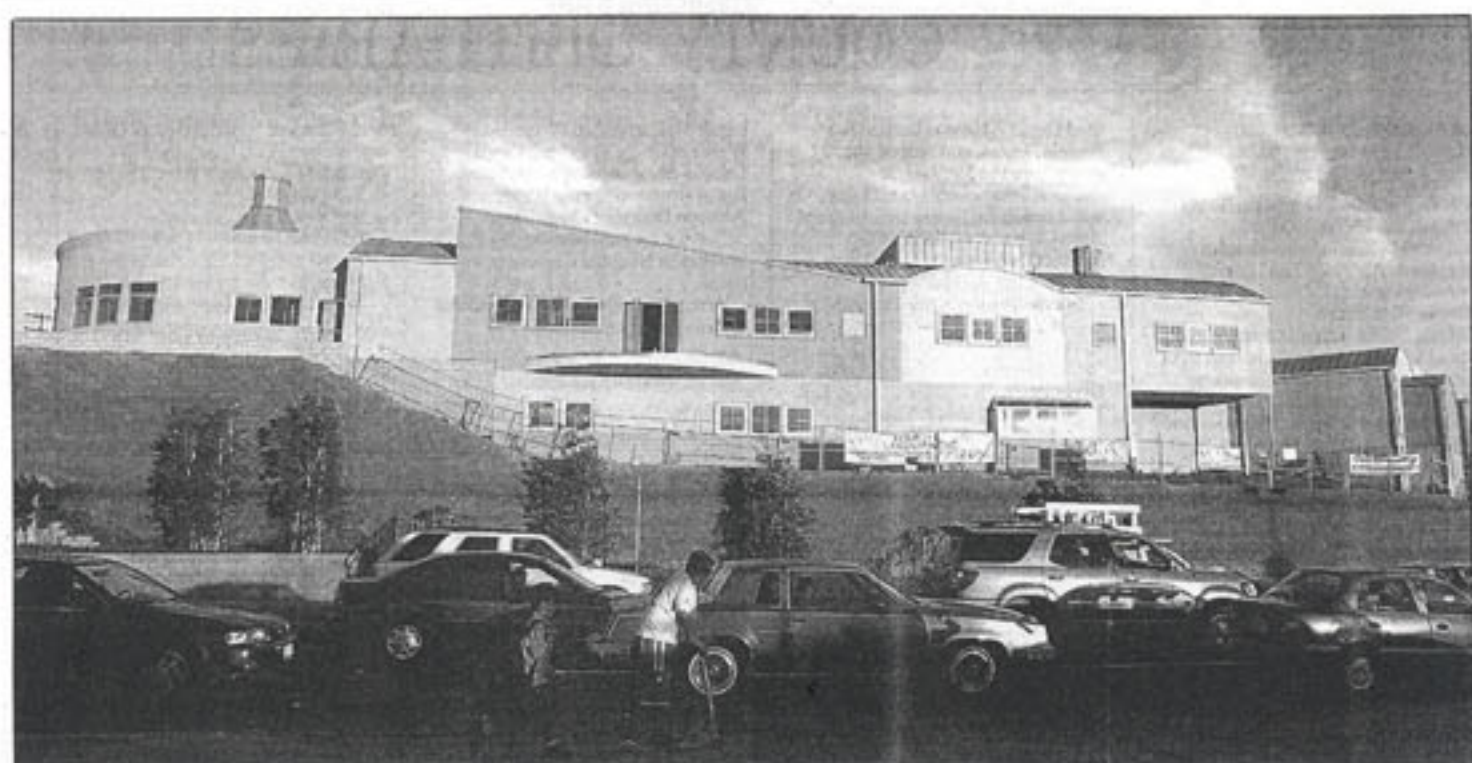
Students talk about their futures here, about becoming astronauts or the first woman to go to Mars. About being an inventor and making cars that run without gasoline and that don't make smog so we won't get sick.

Others, like 8-year-old Stefon Harris, talk about more simple things, giving exhaustive lists of what he likes about EIS.

"We do a lot of experiments and have fun and you don't get teased here and they make you feel happy and I have a lot of friends here and you can believe in yourself here," Stefon said. "And you learn not to taste stuff. 'Cuz you might get sick."

Classes cost \$20 a month and meet for four hours a week. A sliding scale is offered for families with more than one child or for those with financial constraints. Anderson said the children come from 80 elementary schools around the county, but the majority still come from the neighborhood.

"We are reaching wide and far, but we are right where we need to be," Anderson said. "We will stay in this community because we know it's underserved."



The new Elementary Institute of Science (above), a \$6 million facility built entirely with private money, will open in 2003. Below, Fernando Valdez worked on the drywall for the 15,000-square-foot institute at Euclid and Market streets. *Nelvin Cepeda / Union-Tribune photos*

