

PATERSON, NJ - Imagine visiting the rings of Saturn, traveling amongst billions of galaxies or descending to the very bottom of the ocean.

This is just a tip of the iceberg of what the Zeiss Full Dome Digital Projection System has to offer. And Paterson Public Schools is looking to bring this sophisticated, state-of-the-art technology to the planetarium at PANTHER (Paterson and NASA Together For High Expectations and Results) Academy on Memorial Drive.

The new projection system won't come cheap. Officials put the cost at about \$500,000. But city education advocates say the investment will be worthwhile, one that would advance the district's science curriculum and also expand the use of the planetarium by universities and other New Jersey school districts.

Paterson school board member Jonathan Hodges said the district has a tremendous opportunity to benefit its children. "It gives the ability to use real time data to tell an educational story about science," Hodges said. "What we can do is really bring the message home in a dramatic fashion, not just to tell a story but to weave the connection between astrology, math, science, physics, geology."

"You can show the connections of where we all came from," he added. "You can make those connections in the minds of children from a very early age and create wonder."

At present, the district mainly uses the planetarium to teach about the solar system, according to Hodges. But the Zeiss system would take the educational opportunities far beyond that, he said.

"You can look at a molecule and talk about the orientation, left versus right, and its chemical properties," said Hodges. "You can take microscopic pictures and show the cell membrane. We can't do that now, but with this [the Zeiss system] we can change our curriculum and use this to teach children at a very early age what we're trying to get them to learn. You want to inspire their curiosity."

Education advocates say the difference between the Zeiss system and what the Panther Planetarium now uses is so vast, it's like night and day. "It's like the old telephone compared to what we have now with the iPad," said Hodges. "Or a black board versus a computer."

Gary Swangin, the PANTHER planetarium manager, said that having the digital Zeiss system will make the planetarium a place where students expand their horizons. "You can bridge the sciences together," he said. "One of the good things is that should we go in this direction, it would put Paterson on the map as one of the most outstanding facilities."

Swangin is extremely excited about the possibility of getting the Zeiss system. He recalled his first trip to the Fels Planetarium in Philadelphia, as a 6-year-old child.

"I will never forget that moment," he said. "I said, 'I want to study the universe.' I went home that day, took a shoebox, put pins [used as stars] in the shoebox and held it up to the light. It wasn't that great ... but!" He paused to laugh and continued, "I was absolutely fascinated with the universe."

Currently, there are only two Zeiss units in the United States, but Swangin said more are going to be made.

In order for the district to be able to bring the Zeiss system to PANTHER Planetarium, it would have to raise \$500,000.

Hodges is unsure of how that will be done, exactly, but he suggests lectures and demonstrations. "We're going to raise it from anywhere we can," he said, "but we're seeking partnerships that can be equally beneficial."

Swangin is also unsure of where the money will come from. "To be very honest, I don't know," he said. "That's a lot of money, but there are avenues. My wish would be an endowment. That's the route I'd suggest they take. I can't make that call."

District spokeswoman, Terry Corello said city education officials were looking for help from corporate, state and federal sources. "We're going to look from every angle," Corallo said. "This would be a tremendous opportunity to be a state leader in urban education. This would be a huge boost in the history of Paterson."

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