

Several school districts in Colorado pushing for rigor in science

By Yesenia Robles *The Denver Post* *The Denver Post*

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Come this fall, a new initiative to increase the rigor of science and math education will start by changing the sequence of classes students take.

At Northglenn High School, for example, physics will now be required for freshman — instead of for juniors or seniors.

"We always kind of realized there were gaps," said Lori Egan, a science teacher and instructional leader at Northglenn High. "We really hadn't thought about having physics first, but it makes sense in order to start making a richer curriculum."

Egan is one of the first teachers in the state who has taken new training and implemented a change.

On Tuesday, officials gathered to announce a \$400,000 grant to fund training of about 200 teachers in at least five school districts that showed interest.

The physics training program comes from New Jersey, and the grant comes from the National Education Association. In Colorado, the Morgridge Family Foundation and Xcel Energy matched the grant.

The 200 or so teachers are to be trained for science, technology, engineering and math. About 1,000 teachers need the training, according to education officials.

David Eves, president of Public Service Co. of Colorado, said businesses urgently need improvement, noting that more than half of Xcel's current jobs require math or science skills.

Bob Goodman, executive director of New Jersey's Center for Teaching and Learning, started the program six years ago. His data show that more students are taking advanced placement courses in math and science, and succeeding.

According to Colorado Department of Education records, in 2010-11, of the 66,800 students who take advanced placement courses, 2,135 took one of the three advanced- placement physics classes.

Goodman said the money will fund one full-time state position to coordinate training and part- time positions.

Besides changing science class sequences, the program involves better coordination of science classes with math.

At Northglenn High, the distinction between physics, chemistry and biology may be blurred, Egan said.

"An engineer can't just understand chemistry. You have to understand physics and biology too."

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