

Attacking the science, math middle school problem

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Associated Images



WHEAT RIDGE - Eighth grader Duncan Williamson drops the marble into his group's makeshift roller coaster. They're learning about potential and kinetic energy, sending the ball along a chute complete with loops and a ramp. He has a real mathematician to help.

"He has a bunch of different ideas and it usually makes for a lot more fun," said Williamson, a student at Everitt Middle School in Wheat Ridge.

Williamson is talking about Jeff Larson. Larson is a doctoral student at the University of Colorado Denver. He is also part of a National Science Foundation (NSF) grant called Transforming Experiences. It is aimed at enhancing science and math education at the middle school level.

"Math and science have more application than just the teaching classroom," said Larson. "I think the students really benefit from seeing all the things math can do."

Larson tries to show the inter-relationship between math and science. The grant's principal investigator is Professor Mike Jacobson, chairman of Mathematical and Statistical Sciences for UC Denver.

"Something happens in the middle school," said Jacobson.

He says standardized test scores show the sixth, seventh and eighth grade years are the times when American students fall behind students from other countries in math and science skills.

Jacobson oversees the five-year NSF grant which totals \$2.9 million. The money pays for the creation of eight fellowships to place doctoral and masters level students in middle schools in the Jefferson County and Englewood School Districts.

"The United States is losing their edge as far as science and technology goes," said Jacobson. "This is one way for the National Science Foundation to at least try to catch up with the rest of the world."

Larson is one of the eight fellows. He spends two days a week helping with classes from the morning bell till after lunch.

"I'm opening their eyes to a world they never even thought existed," said Larson.

Williamson says it's sometimes easier to talk to Larson about questions and figuring out problems.

"I guess maybe he's younger," said Williamson. "He's more fresh of college, I guess."

Larson works with Michele Harris, an eighth grade science teacher. Harris says Larson's presence is a huge help.

"I think any kind of enhancement and outside kinds of connections to the world help the students," said Harris.

The grant and the coordinated efforts are not a knock on the teachers, says Larson.

"Their job is training for teaching, reaching students, and not necessarily extreme content," said Larson.

Williamson says Larson makes science and math seem more real.

"Like, Ms. Harris, she thinks about teaching it to us in the easiest possible way," said Williamson. "But he thinks about like making it happen and all the possible things you can do with it."

If Larson can inspire some kids along the way into pursuing interests in science and math, so be it.

"If they don't think math or science is important, they're not going to care to learn it," said Larson.

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