

Positive Signs for Iowa Math and Science



From last academic year to the current, indications are that all the hard work is beginning to pay off in math and science education. At Iowa's public universities, more students are declaring majors in STEM fields such as chemistry, mathematics, biology and engineering. The combined enrollment of science and math teaching majors at UNI and ISU is up, too. And, inspired leadership within and beyond the classroom is revealing itself through the test scores of learners. The massive inertia of our challenge needs sustained collective push. Detailed results will be available in our 2009 report soon.

State STEM Education Initiative Profiled at Annual NASSMC Coalition Directors Meeting

State STEM education initiative leaders from across the U.S. gathered in Washington D.C. in mid-September to compare notes and to learn of governmental efforts to aid STEM programming, hosted by the National Alliance of State Science and Math Coalitions (NASSMC). Iowa Mathematics and Science Education Partnership Director Jeffrey Weld facilitated a panel of 18 state STEM directors to explore common challenges such as governance, stakeholder connection, evaluation and, of course, sustained funding. At the same meeting, Iowa Math & Science Coalition (IMSC) Director Lyn Countryman profiled the annual Iowa Student STEM Symposium series conducted by IMSC. In response to a consensus that much remained to be explored together, an on-line community of directors through which details of the Iowa model and others continue to be shared is under development. More details will be available soon.

IMSEP Grant Helps Launch Transportation Online Magazine for Teens



Iowa students can gain core competency in STEM skills while learning about transportation-related careers thanks to IMSEP's sponsorship of *Go!*, a free, fun and action-oriented online magazine for teens published by the Institute for Transportation at Iowa State University. Beginning with the September 2009 issue, a new interactive, feature-length story department introduces STEM-based, transportation-related activities that readers can do at home or in the classroom. In addition, each feature article includes a sidebar that discusses STEM concepts related to the article topic. As *Go!* begins its third year of publication, the IMSEP grant is helping not only to strengthen its content but also to broaden its audience. Beginning this month, a new Spanish edition is taking *Go!*'s message, including the new focus on STEM, to Iowa's growing Spanish-speaking population. To see the new issue, click on www.go-explore-trans.org.

Fall ConFABS in Sioux City on October 21

Mark your calendar for the first IMSEP ConFABS (*Conversations to Forge Alliances of Businesses and Schools*) of the fall. Scheduled for Wednesday, October 21, at the Northwest Iowa Area Education Agency (AEA) office at 1520 Morningside Avenue, Conference Room D, Sioux City, the meeting begins at 7:00 p.m. IMSEP ConFABS—partnerships of IMSEP, local AEAs, and area business representatives—are part of a series of initiatives designed to elevate science and math education in Iowa to new heights. This is the sixth ConFABS in partnership with an Iowa AEA, open to all community, business and education leaders interested in enhancing math and science education in their communities. To RSVP for this event or to learn more, contact Tonja at Tonja.Richards@uni.edu.

Career Workshop Features NASA Astronaut October 27 at SCI

Iowa State University's Community College Leadership Program (CCLP), in collaboration with IMSEP, will host a one-day workshop featuring American naval captain and retired NASA astronaut Robert L. Gibson on Tuesday, October 27, from 9:00 a.m. to 4:30 p.m. at the Science Center of Iowa (SCI) in Des Moines. Aimed at recruiting students and professionals to teach math and science courses at the community-college level, the *Teaching Mathematics and Science in Community College Career Day* is designed to ignite the teaching spark in college students majoring in math and the sciences and working professionals who may be interested in a career change. "We want to make sure participants realize that a career as an Iowa community college instructor is a viable and exciting option," said Marisa Rivera, Post Doctoral Research Associate/Project Coordinator. There is no cost to participants. Breakfast and lunch will be provided. For additional details and to register for the workshop, please log onto <http://www.ucs.iastate.edu/mnet/tmscccd/about.html>.

Students Learn from Teachers What It's Like in the Classroom



Lenny Rhomberg talks with fellow student at I-Teach Seminar.

The **I-Teach Math and Science** teacher recruitment seminars are now underway. Through this exploratory course, math and science majors are currently absorbing lessons learned from seasoned teachers. "There are lots of people in my family who teach, but I'm not 100% sure," said Lenny Rhomberg, a UNI freshman. "I knew this class would help me decide. And I heard the class was fun." To get a feeling for what to expect as a K-12 teacher in Iowa, students listen to math and science teachers from across Iowa who teach all types of math and science classes in both large and small schools. "You know why you're there when you see the light go on for a student," said Tom Boheman, a long time science teacher at Gladbrook-Reinbeck and an I-Teach guest speaker. "To keep things fresh for students, I ask around, talk to my fellow teachers, and read up on what's new and exciting.

Last year I made up an oncology and forensic science course that my kids love. I love what I do." Adds Shea Brunsvold, freshman chemistry major, "The information we gain in this class is honest feedback and not sugar coated. Combined with getting experience teaching early in my college career – I think I-Teach is great."

Science Teacher's Easter Lake Externship Proves to be Class-Worthy



Polk County officials talk with Extern Scott Voogd about Easter Lake Project.

With clipboard in hand, Des Moines Lincoln High School teacher Scott Voogd surveyed homeowners door-to-door around Easter Lake this summer as a participant in IMSEP's **Real World Externships for Teachers of Math and Science**. Scott's goal was to document land use around the southeast Des Moines neighborhood to address water quality issues affecting the lake. Not only did his work provide valuable information to Polk County Conservation—his summer employer—it is now being incorporated into his classroom this fall. "This is an entirely new project for my classes," said Voogd. "I have never spent extensive time on groundwater or pollution of the environment in class. My colleague (who also teaches Earth Science in our school) and I have put in a great deal of time this fall to prepare a brand new unit to tie this project into our curriculum." Students will learn three basic concepts this year based on Scott's new knowledge: students are learning that the elements in the Earth are not in an open system and do not just reappear from nowhere; students are

learning that things impacting the atmosphere can also impact the water they drink and the lakes they swim in; and students are learning that the Earth's elements are in constant movement between systems. For more information about IMSEP's Real World Externship Program, contact Diane at Diane.Yoder@uni.edu or visit the IMSEP website at www.iowamathscience.org/externships/.

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