



Math in the Middle

October 2006



Welcome!

Challenging. Rigorous. Intense. Rewarding. An opportunity not to be missed. These are some of the comments we hear from our Math in the Middle participants. We're excited about the program and the teachers who are involved, and we want to share some of this with you on a monthly basis. Please let us know if there is information you would like to see featured here. We appreciate your feedback. Contact Kim Quade at 402-472-5878 or via e-mail at kquade@math.unl.edu.

What is Math in the Middle?

Math in the Middle is a partnership among educators at the University of Nebraska–Lincoln, Lincoln Public Schools and Nebraska's rural Educational Service Units. Its focus is developing strong intellectual leaders in middle-level (grades 5-8) mathematics. It's funded by a five-year, \$5 million grant from the National Science Foundation.

By investing in high-quality teachers, Math in the Middle's mission is to improve student achievement in mathematics and significantly reduce the achievement gaps in the mathematical performance of diverse student populations in Nebraska. The program recruits middle-level teachers for the two-year program where successful participants earn master's degrees.

Now accepting applications

The Math in the Middle Institute Partnership seeks middle-level (grades 5-8) teachers desiring to enhance their mathematical knowledge and their teaching of mathematics. It also seeks those teachers committed to building the leadership skills needed to become teacher-leaders in their schools, districts and ESUs.

Applications are now being accepted for the fourth cohort of the Math in the Middle Institute. Forms are available on our Web site at: <http://scimath.unl.edu/MIM> or from staff development officers at each ESU. Please encourage qualified teachers to apply. The application deadline is Monday, November 20. Successful applicants will be notified by the end of December.

Project hosts Rural Education Workshop

Bringing knowledge and insight into mathematics education and rural schooling is a major focus of the Math in the Middle Institute Partnership. To further this focus, Math in the Middle recently sponsored its second Rural Education Workshop which featured keynote speaker Dr. G. Williamson McDiarmid who holds the Boeing Chair in Teacher Education in the College of Education at the University of Washington in Seattle.

NCTM releases curriculum focal points

Curriculum Focal Points for Prekindergarten through Grade 8 Mathematics: A Quest for Coherence is a new publication from the National Council of Teachers of Mathematics. The publication supports the ideas presented in NCTM's *Principles and Standards for School Mathematics*.

The document is the result of an analysis of curriculum expectations and suggests a series of "focal points," or the most important mathematical themes for promoting long-term learning. These themes can be used as a foundation to guide classroom instruction for each grade level.

Curriculum Focal Points provides a starting point for dialogue on how curriculum standards can be organized to produce a coherent, focused curriculum. For more information or to download a free copy of the *Curriculum Focal Points* see: www.nctm.org/focalpoints.

Briefs study cost of inadequate education

Two briefs by the *Alliance for Excellent Education* (<http://www.all4ed.org/publications/IssueBriefs.html>) detail the cost of inadequate education for high school students. In *Paying Double*, the Alliance calculates that the poor preparation students receive in high school costs the nation more than \$3.7 billion a year. This figure includes the \$1.4 billion needed to provide remedial education to recent high school graduates and the almost \$2.3 billion the economy loses when remedial reading students reduce their earning potential by dropping out of college without a degree. In *Saving Futures, Saving Dollars*, the Alliance projects that increasing the high school graduation and college enrollment rates of male students by only 5 percent could lead to reduced crime rates and combined savings and revenue of almost \$8 billion each year.



Math in the Middle

October 2006/Page 2

Math in the Middle graduates first cohort

For two years, they've learned significantly more math than typical middle-school math teachers are expected to know. They've studied the art of pedagogy and how to teach their students more effectively. And now, 27 teachers have earned master's degrees from the University of Nebraska-Lincoln as a result of their participation in the Math in the Middle Institute Partnership. Receiving degrees were:

ESU 6:

Virginia Clark, Waverly Middle School
Michael Cobelens, Waverly Middle School
Dean Davis, Centennial Public Schools
Tiffany Lothrop, Crete Middle School
Jim Pfeiffer, Friend Public Schools
Kyle Poore, Crete Middle School
Sandi Snyder, Shickley Public Schools

ESU 7:

Doug Glasshoff, East Butler Public Schools
Karen Hillen, Leigh Community Schools

ESU 13:

Bryan Engelker, Bayard Public Schools (now Wyoming)
Diana French, Alliance Middle School
Natalie Jenkins, Geil Elementary School
Stacie Lefler, Gordon-Rushville Middle School
Michelle Lembke, ESU 13 (now Bridgeport Public Schools)
Janet Schlattmann, Alliance Middle School
Danielle Swanson, Alliance Middle School

Lincoln Public Schools:

Julane Amen, McPhee Elementary School
Delise Andrews, Clinton Elementary School
Darla Berks, Scott Middle School
Myrna Bornemeier, Lux Middle School
Gary Furse, Pound Middle School
Kristin Johnson, Lefler Middle School
Julie Kreizel, Mickle Middle School
Shawn Mousel, Belmont Elementary School
Laura Parn, Elliott Elementary School
Anne Schmidt, Lefler Middle School
Vicki Sorensen, Culler Middle School

(article continued in next column)

UNL Professors Jim Lewis and Ruth Heaton say that Math in the Middle is especially rewarding because of the superb teachers with whom they have the opportunity to work. "The teachers are extremely dedicated to improving math education in Nebraska," Lewis said. "They are helping us create a national model for middle-school mathematics teachers."

Math in the Middle teachers learn mathematical topics in a deep and meaningful way, and they analyze their own teaching and apply what they've learned. "I see real value coming from what teachers are learning about what it means to do mathematics," Heaton said.

In addition to educating teachers to become better mathematicians, the program develops teachers' capacities to make a difference in their schools, districts and ESUs by becoming leaders in their schools, mentoring their peers and encouraging other teachers.

By the project's end, more than 130 teachers state-wide will have participated.

NATM supports state's math teachers

The Nebraska Association of Teachers of Mathematics held its fall conference in Kearney Sunday, October 8, and Monday, October 9. The conference theme was "Bridging the Gap to the Future - Instructional Technology."

Two Math in the Middle participants from Cohort 2 presented at the fall conference. Tina Thompson from Lexington Public Schools and Dan Schaben from Orchard Public Schools shared their knowledge.

The spring conference will be held Saturday, February 24, at Lincoln Southeast High School in Lincoln. Several Math in the Middle teachers are slated to present.

More information about NATM can be found on the Web site at: <http://www.nde.state.ne.us/NMSI/natm/>.

Look for additional information about the spring conference in upcoming newsletters.



Math in the Middle is supported by the National Science Foundation grant EHR-0142502 with additional support from the Center for Science, Mathematics and Computer Education at the University of Nebraska-Lincoln.

Any opinions, findings and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.