



Mathbits

Minnesota Council of Teachers of Mathematics

www.mctm.org

Mark Your Calendar

Renewing the Profession Theme of Fall Conference

**Friday,
October 20, 2000**

Fall Conference
Wayzata High School
4955 Peony Lane
Plymouth, MN

Poster and Registration
Information Inside

**Friday-Saturday
April 27-28, 2001**

Spring Conference
DECC
Duluth, MN

More Information in Next
Issue

Mark your calendar now to attend the MCTM Fall Conference on October 20 at Wayzata High School. The conference, held jointly with the Minnesota Science Teachers Association (MnSTA), begins with registration at 7:45 and the general session at 8:30 a.m. Four sets of concurrent sessions follow, with the door prize award session ending at 3:10. Textbook and other commercial exhibits will be available throughout the day.

Keynote speaker Nancy Walters will address the conference theme, *Renewing the Profession*, as she talks about characteristics of effective professional development programs for mathematics and science teachers. Dr. Walters manages the Minnesota program for the federal higher education Eisenhower Professional Development Program for K-12 teachers as part of her duties for the Minnesota Higher Education Services Office. She will provide background information about the Eisenhower program, describe professional development programs available to Minnesota teachers, and give us some hints on what to look for in a useful program and how to use school Eisenhower funds effectively.

The conference theme will continue to be addressed in breakout sessions, where speakers will share teaching ideas and information about standards based curriculum and assessment. Mentoring new teachers is a special focus this year, and there will be teacher educator sessions to generate ideas for preparing new teachers to meet the challenges and opportunities of teaching standards-based mathematics.

MATHCOUNTS

MATHCOUNTS Compiling Electronic Mailing List

Minnesota MATHCOUNTS, a nonprofit coaching and competition program for 6th, 7th and 8th graders, is looking to improve its communications with math teachers. The program, which is coordinated by the Minnesota Society of Professional Engineers and which works closely with MCTM, has been conducting competitions in the state for 17 years. Michele Luke of MTCM is on the Board of Directors for the state program.

MATHCOUNTS currently sends out a newsletter to teachers three times a year, but would like to be able to reach them electronically for announcements between newsletters.

If you are interested in being on their electronic mailing list, please send your email address to Judith Strom, supera@earthlink.net. Your address will only be used for MATHCOUNTS announcements and will not be given out to anyone else. You can find out more about the program at its website: <http://mnspe.org/mathcounts>

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Grants Available to Teachers

NCTM Mathematics Education Trust (MET) Grants

NCTM's MET funds special projects that enhance the teaching and learning of mathematics. The awards are available through a competitive process based on proposals submitted by 5 December 2000. Call NCTM at 703-620-9840 or see the NCTM website (www.nctm.org) for additional information.

Clarence Olander Grants for In-Service Training for Elementary Schools:

Elementary schools receive up to \$2000 for support of in-service programs. Costs may include honoraria and expenses for consultants, materials, substitute time, and conference registrations.

Dale Seymour Scholarships for Grades K-12 Teachers:

Scholarships of up to \$2000 are provided to grades K-12 teachers who are interested in improving their mathematics background to enhance their mathematics instruction.

E. Glenadine Gibb Grants for Implementing the NCTM Standards:

Grants of up to \$2000 are provided to grades K-12 teachers to carry out a plan that implements some aspect of the NCTM Standards in their own classrooms.

Edward G. Begle Grant for Classroom-Based Research:

Provides up to \$8000 to support collaborative classroom-based research in precollege mathematics education. Proposals should reflect creativity and emphasize innovative ways of teaching or assessing students' learning of mathematics.

Ernest Duncan Grants for Grades K-6

Teachers: Grants of up to \$2000 are provided to persons currently working at the grades K-6 level to improve their own professional competence as classroom teachers of mathematics. This may include the improvement of the teacher's background or curriculum improvement projects directed at the teacher's classroom.

Isabelle P. Rucker Awards for Future

Teachers: Up to \$1000 is provided for travel and subsistence expenses to help support attendance at an NCTM annual or regional meeting by full-time students who are preparing to be precollege mathematics teachers.

Future Leaders Annual Meeting Support

(FLAMeS) Project Awards: Up to \$1000 is provided for travel, subsistence expenses, and

substitute teacher costs of full-time mathematics teachers in grades K-12 who have never attended an NCTM annual meeting, are NCTM members, and have taught three to ten years.

Mary Dolciani Grants for Grades 7-12

Teachers: Grants of up to \$2000 are provided to persons currently working at the grades 7-12 level to improve their own professional competence as classroom teachers of mathematics. This may include the improvement of the teacher's background or curriculum improvement projects directed at the teacher's classroom.

Theoni Pappas Incentive Grants for

Grades 9-12 Teachers: Grants of up to \$2000 are provided to grades 9-12 teachers to develop mathematical enrichment materials or lessons detailing an innovative teaching unit they have implemented in their own classroom.

Toyota TIME Grant

Toyota's Investment in Mathematics Excellence (Toyota TIME) Grants for

Grades K-12 Teachers: Toyota TIME grants of up to \$10 000 each will be awarded to thirty-five U.S. teachers in grades K-12. Grants are made possible by Toyota Motor Sales, U.S.A., Inc., and the Mathematics Education Trust. Grants are for a two-year period and should demonstrate creativity and emphasize innovative ways of teaching mathematics or assessing students' learning. The deadline for Toyota TIME is 10 January 2001. For more information, call toll-free (888) 573-TIME.

Growth Incentives for Teachers (GIFT) Grants

Each year, the Verizon Foundation awards GIFT grants to 70 teams of one math and one science teacher from the same secondary school who have developed school enrichment projects that integrate math and science and use technology in an creative way. Each winning team shares a \$15,000 GIFT grant -- \$8,000 to implement the school enrichment project and \$7,000 (\$3,500 each) for the participating teachers to pursue professional development activities.

For more information or an application form, call 800-315-5010 or send e-mail to gift@gte.com. Applications are also available online at http://www.gte.com/AboutGTE/community/gte_foundation/opportunities/gift.html. Deadline for submissions is 12 January 2001.

**Presidential
Awards for
Excellence in
Mathematics
Teaching**

**Awardees
Announced**

**2001
Applications
Ready**

Green and Delaney Are PAEMST Awardees

Bernadette Green, Minneapolis, and Ellen Delaney, North St. Paul, are Minnesota's newest mathematics recipients of the Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST). They met in June in Washington DC with over 200 other awardees (four from each state -- one elementary and one secondary mathematics teacher and their science counterparts).

Each awardee receives the Washington trip, a special citation signed by the President, and a \$7500 NSF grant to spend on their school's mathematics or science program. Bernadette (Bernie to nearly everyone) is using her award to complete a computer lab at her school, Loring Community Elementary School in Minneapolis. The lab, which will allow an entire class to access a computerized tutoring program in mathematics and reading, was in progress but funding ran short. Bernie's award will allow completion.

Ellen, who was honored two years ago as Minnesota Teacher of the Year, will use her award to fund several technology projects for students in her North St. Paul district.

The trip to Washington DC was "one of the most fabulous experiences I have ever had" according to Bernie, who described the State Department dinner by saying, "We were treated like royalty." She especially appreciated the feeling that the PAESMT teachers were not only being honored personally, but were representing all teachers in being recognized for the important work that they do. One full day of the meeting was spent in poster sessions sharing ideas.

The path to the Presidential Awards begins with an application and its review by state committees which select three State Finalists for each category. Finalist applications are then forwarded to Washington where awardees are selected by a national committee.

Applications for the next round of awards are due February 12, 2001 and are available at the PAEMST web site: www.nsf.gov/PA. All teachers who have at least 5 years of experience teaching K-12 mathematics are eligible to apply.

According to Ellen, the application process is "a wonderful opportunity for self reflection." Both awardees encourage all experienced teachers to apply for this award. As Bernie says, "you don't get a chance like this unless you try for it."

**Did you get your
MCTM E-Mail
Message?**

Do we have your correct e-mail address? MCTM is increasing electronic communications with our members and we want to make sure that you do not miss out on any important notices or information. If we have your correct e-mail address you should have received a message in the last two weeks notifying

you of MCTM on-line services. If you did not receive this electronic message, it means that we do not have a correct e-mail address for you. In that case, please send your correct address to Executive Director Arnie Cutler at cutler@tc.umn.edu

Graduation Standards 2000

A report from the State Mathematics Specialist

NEW GRADUATION STANDARDS LAW PASSED IN MAY 2000

As you no doubt know, the Minnesota Legislature passed a law late in the 2000 session addressing some of the implementation difficulties that were part of the 1998 law. Here is a short summary of the changes.

The three additional student contact days that were added to school calendars several years ago may now be used for staff development as well as for student contact. If used for staff development, the topics can be improving scope and sequence of curriculum, research based instructional skills of teachers, or alternative assessments.

Districts must vote annually on the number of standards required for all students to complete at each level. For required standards, students will demonstrate learning with performance assessment, will be assigned a score using a rubric, and have that score recorded on the transcript.

However, no matter how many standards a district chooses to require, each district will "provide learning opportunities to all students in all preparatory content standards in learning areas 1-9 and provide learning opportunities to students sufficient to meet the state graduation requirements." In other words, standards must be integrated into coursework both for required and non-required standards. Standards must be integrated into courses, not done as stand alone, separate sets of activities.

This requirement includes giving students choices where choices are indicated, so that anytime there is a

choice, there should be at least two offerings. In the case of the mathematics learning area, this would mean, for example, that students should have the opportunity, at least at some point during their high school years, to select either the Chance and Data Content Standard or the Discrete Mathematics Content Standard.

For those standards that are required, it is no longer necessary to use performance packages as tools for assessment. However, the law does require that the assessments used must be performance assessments, and that they must be scored with a grading system comparable to the state criteria. A new score point of 0 has been added; this is to be used to record incomplete work on a standard.

The law requires a high standards tool library. It will include examples of assessments, effective instructional practices, research, and student work. Several of these pieces will be available in September under the name of EdSTAR. Watch for announcements giving the web address.

In summary, this law gives more control to local districts about the pace and strategies for implementing Minnesota's high standards. Emphasis is moved from assessment of the standards to instruction on the standards. Assessments must be included as part of the grade for a subject or course, and a new score of 0 is available to indicate incomplete work.

For a copy of the complete law, see www.revisor.leg.state.mn.us/slaws/2000/c500.html

Sharon Stenglein
State Mathematics Specialist

Bonnie Hagelberger Candidate for NCTM Board

NCTM Election

The National Council of Teachers of Mathematics has named Bonnie Hagelberger as a candidate for the NCTM Board of Directors. Bonnie, who teaches at Monroe Elementary School in Brooklyn Park, is well known as a leader in mathematics in Minnesota. In MCTM, she is currently the Finance Chair. She has also served as Vice-President for Elementary and was on the Spring Conference Program Committee for several years.

larger national mathematics and education communities.

NCTM members will receive a ballot in the mail in late September. Please vote-- ballots must be postmarked by 31 October 2000.

Bonnie is a current member of the NCTM Electronic Resources Committee.

NCTM directors serve three-year terms on the fifteen-person board and make influential decisions about Council actions, policies, and programs. They also represent mathematics teachers within the

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