

MATHWEST Spring Conference

Hands-On Mathematics

www.mathwest.org

March 24, 2005
Springfield
Marriott

Schedule of Events

7:30	Registration & Continental Breakfast
8:00	Session A Begins
10:00	Session A Ends
10:15	Session B Begins
12:15	Session B Ends
12:20	Luncheon Begins
1:10	Luncheon Ends
1:15	Session C Begins
3:15	Session C Ends

Did you know ?

The continental breakfast and luncheon is included in the registration fee. These are opportunities built into the day to give you time to meet other teachers from across Western Massachusetts and share ideas.

You are sure to meet someone you'll want to get to know!

Welcome

to the 2005 MATHWEST Spring Conference. The Board of Directors has worked hard to develop a program that reflect the grade-span and scope of our profession and ensure that it is one that will enhance your knowledge of teaching mathematics, a critical area of importance to our students across Western Massachusetts.

It is my hope that you will find during this day abundant opportunities to get together with old friends and to make new ones, to look at old concepts differently, and to join the discussion about new strategies and technologies. I hope you will let us know what you think about the offering of sessions, speakers, and functions held today. Don't hesitate to speak to me or to any member of the MATHWEST Board about suggestions for future conferences.



Lastly, I hope that you leave this conference feeling renewed, enthused, informed, and inspired to be one of the greatest teachers of all: a Mathematics Teacher!

All the best!

Scott L. Trahan

Conference Chair
and President, MATHWEST

The Marriott is located in the heart of New England in Downtown Springfield, directly off Interstate-91. Park in the Tower Square Garage attached to the hotel. Cost for parking is \$5.

Directions to the Springfield Marriott

From the North: Take I-91 South to Exit 7 (Columbus Ave—Downtown Springfield). Take a left off the ramp. The hotel is in front of you.

From the East: Take the Mass Pike to Exit 6: I-291. Bear left after tolls. Once on I-291, take Exit 1: I-91 South. Follow directions when

traveling from the North.

From the West: Take the Mass Pike to Exit 4: I-91. Take I-91 South. Follow direction when traveling from the North.

From the South: Take I-91 North to Exit 4 (Broad Street). Go straight through five traffic lights. The hotel is in front of you.

Session Descriptions

- Session #1 **So You Want to Hold a Math Family Festival? Here are Some Cool Ideas! K-4**
Marnie Henneman, Swift River Elementary School, Belchertown, MA
Build a better home-school connection with Math Family Festivals. A variety of ideas will be presented (with handouts) to make your math night a success.
- Session #2 **Classrooms — They've Gone Co-op! K-4, 5-8, 9-12**
Anne Kellner, Cathedral High School, Springfield, MA
This session will be an interactive workshop incorporating classroom strategies for cooperative learning. Make your classroom come alive by using hands-on activities that change your typical classroom group into a cooperative learning team. Handouts will be available.
- Session #3 **Manipulatives and More 5-8**
Sr. Louise M. Lataille, Cathedral High School, Springfield, MA
Experience math-rich, NCTM Standards-based activities using a variety of manipulatives that will bring new life to your mathematics classes. Insight into number sense, spatial sense, visualization, problem-solving and more will be covered.
- Session #4 **Afraid of the Graphing Calculator? Learn to use the TI-84+ in Middle School Mathematics 5-8**
Scott L. Trahan, Agawam High School, Agawam, MA
Learn some basics functions of the TI-84+ graphing calculator. Topics will include evaluating algebraic expressions, matrices, probability, statistical graphs, and linear equations. No prior experience necessary!
- Session #5 **Manipulatives, Activities, and Projects 9-12**
Lori Seymour, Ralph C. Mahar Regional High School, Orange, MA
Hands-on approaches, group activities, and long and short term projects to stimulate student interest.
- Session #6 **Geometer's Sketchpad in the Classroom 9-12**
Nikali Benkert, Agawam High School, Agawam, MA
Geometer's Sketchpad can be used to enhance student understanding of mathematical concepts. We will look at topics in geometry, trigonometry, and calculus. Various handouts for class lab assignments will be distributed for use in your classroom. A basic knowledge of the software is recommended.
- Session #7 **What Do You Do with Geoboards? K-4**
Nancy Strouse, St. Thomas the Apostle, West Springfield, MA
Dust off the geoboards? This hands-on workshop will model and give you activities on how to use the geoboards in teaching area, perimeter, fractions, problem-solving, games, coordinates, ratios, and fair sharing.
- Session #8 **Paper-folding and its Uses in Mathematics (Origami 101) K-4, 5-8**
Patricia Bertone-Gross, Agawam High School, Agawam, MA
Lyn Heady (Retired), Easthampton High School, Easthampton, MA
Origami is the Japanese art of paper folding. Learn some interesting constructions that provide a unique exercise in spatial reasoning, while manipulating basic geometric shapes such as squares, rectangles, and triangles.
- Session #9 **Synergetics, Sacred Geometry, and the MagneBlocks™ 5-8, 9-12**
Warren Scott Fentress, Geometix International, Brookfield, CT
This session will provide a history and overview of Fuller's Synergetics and Sacred Geometry, using MagneBlocks™ to learn these principals. We will also discuss how nature follows these geometric constructs.

Session Descriptions

- Session #10 **Play Your Algebra with a Full Deck 5-8**
Cathryn Draper, Math Studio, Inc., Salem, MA
Use the strengths students already have and provide the appropriate environment for students to flourish. They can talk, conjecture, and write about algebra while you facilitate, listen, and assess.
- Session #11 **Using the TI-Navigator in the Mathematics Classroom 9-12**
Nancy Schick, Texas Instruments, Gloucester, MA
See how TI-Navigator lets teachers send, receive, and grade student assessments as well as facilitates classroom activities. It can create a collaborative learning environment for your students.
- Session #12 **Determining Your Latitude by Celestial Observation 9-12**
Donald Murphy (Retired), Northfield-Mount Hermon, Northfield, MA
The operation of a sextant and the “equations” for determining latitude by an observation of the sun at noon are rich in geometry and pre-calculus (along with just a little physics.) I will walk participants through sextant operation, and the motion of the planetary bodies. We will then derive the equations for latitude, depending on the season.
- Session #13 **Literature Links to Math K-4**
Christina Brownell, Swift River Elementary School, Belchertown, MA
This workshop will provide participants with math links to old favorites as well as current children’s books, with plenty of handouts to take back to the classroom.
- Session #14 **Teaching Computation in a Reform-Based Elementary Classroom K-4**
Rick Last, Hampshire Educational Collaborative, Northampton, MA
Current mathematics learning standards require students to go beyond the memorization of particular algorithms to development of understandings of whole number computation. Discover approaches to whole number computation that are efficient, accurate, flexible, and make sense to students.
- Session #15 **What Makes a Good Puzzle? 5-8, 9-12**
Roger Turton, Stoneleigh-Burnham School, Greenfield, MA
Explore the educational value of a variety of common puzzles. After examining some solid “toys”, try a few paper and pencil brain teasers. Finally, make and play with the classic Chinese tangram, while investigating solution techniques.
- Session #16 **A Picture's Worth a Thousand Processes 5-8, 9-12**
Phillip Haislip-Hansberry, West Springfield High School, West Springfield, MA
Throw your students an academic buoy by using graphs to motivate, support, and clarify the algebraic skills and problem solving they are expected to learn from early Algebra through Pre-Calculus. Let the graph behavior be your guide.
- Session #17 **An Active Learning Potpourri 9-12**
Dave Daniels, The MacDuffie School, Springfield, MA
From files spanning 41 years, some probability, statistics, geometry, and fractals. Hands-on and handouts all the way and ready to go on Monday!
- Session #18 **Play Your Algebra with a Full Deck 9-12**
Cathryn Draper, Math Studio, Inc., Salem, MA
Use the strengths students already have and provide the appropriate environment for students to flourish. They can talk, conjecture, and write about algebra while you facilitate, listen, and assess.

Conference Program

*Please Note: Grade level assigned to sessions is only to be used as a guide.
Conference participants are encouraged to attend any sessions they wish.*

<p><i>Take a Look at the Offerings!</i></p>	<p>Elementary Level Grades K— 4</p>	<p>Middle School Level Grades 5—8</p>	<p>Secondary Level Grades 9—12</p>
<p>SESSION A 8 AM — 10 AM</p>	<p>1. So You Want to Hold a Math Family Festival? Here are Some Cool Ideas! <i>Marnie Henneman Swift River Elementary</i></p>	<p>3. Manipulatives and More <i>Sr. Louise M. Lataille Cathedral High School</i></p>	<p>5. Manipulatives, Activities and Projects <i>Lori Seymour Mahar Reg. High School</i></p>
	<p>2. Classrooms — They’ve Gone Co-op! (General Interest) <i>Anne Kellner Cathedral High School</i></p>	<p>4. Afraid of the Graphing Calculator? Learn to Use the TI-84+ in Middle School Mathematics <i>Scott L. Trahan Agawam High School</i></p>	<p>6. Geometer’s Sketchpad in the Classroom <i>Nikali Benkert Agawam High School</i></p>
<p>SESSION B 10:15 AM — 12:15 PM</p>	<p>7. What Do You Do with Geoboards? <i>Nancy Strouse St. Thomas the Apostle</i></p>	<p>9. Synergetics, Sacred Geometry, and MagneBlocks™ <i>Warren Scott Fentress Geometix International</i></p>	<p>11. Using TI-Navigator in the Mathematics Classroom <i>Nancy Schick Texas Instruments</i></p>
	<p>8. Paper-folding and Its Uses in Mathematics (Origami 101) <i>Patricia Bertone-Gross Agawam High School</i></p>	<p>10. Play Your Algebra with a Full Deck! <i>Cathryn Draper Math Studio, Inc.</i></p>	<p>12. Determine Your Latitude by Celestial Observation <i>Donald Murphy (Ret.) Northfield-Mt. Hermon</i></p>
<p>SESSION C 1:15 PM — 3:15 PM</p>	<p>13. Literature Links to Mathematics <i>Christina Brownell Swift River Elementary</i></p>	<p>15. What Makes A Good Puzzle? <i>Roger Turton Stoneliagh-Burnham School</i></p>	<p>17. An Active Learning Potpourri <i>Dave Daniels The MacDuffie School</i></p>
	<p>14. Teaching Computation in a Reform-Based Elementary Classroom <i>Rick Last, Hampshire Educational Collaborative</i></p>	<p>16. A Picture’s Worth a Thousand Processes <i>Phillip Haislip-Hansberry West Springfield High School</i></p>	<p>18. Play Your Algebra with a Full Deck! <i>Cathryn Draper Math Studio, Inc.</i></p>

Teacher of the Year Award

The Board of Directors of MATHWEST is pleased to announce the creation of the Teacher of the Year Award. The award will recognize teachers in Western Massachusetts for outstanding contributions to the advancement of mathematics education and teaching. Three awards will be given per year. The categories for the awards are: current K – 6 teachers, current 7 – 12 teachers, and retired teachers.

Criteria

Use the following criteria as general guidelines for your nomination.

- A. The educator has taught for a minimum of 5 years.
- B. The educator has been involved: statewide, regionally, and nationally.
- C. The educator has introduced or modified new teaching and learning programs.
- D. The educator has presented workshops and/or lectures.
- E. The educator has published materials of value in mathematics education.
- F. The educator has provided services to professional organizations.
- G. The educator has demonstrated enthusiasm and a continual search for knowledge.
- H. The educator has demonstrated leadership in mathematics education
- I. The educator has made a long-term impact on students.
- J. The educator has made other contributions to be considered.

Nominations:

Nominations are encouraged and can come from professionals in the field of education from across Western Massachusetts. Nominators should fill out the nomination form below and include *a maximum* of a two-page essay describing why the nominee should be considered for this award. Nominations should be received by February 15, 2005.

Nominee: _____ School: _____

School Address: _____

City: _____ State: _____ Zip Code: _____

Home Address: _____

City: _____ State: _____ Zip Code: _____

Telephone Numbers (home): _____ (work): _____ (email): _____

Current position and grades taught: _____

Number of years teaching: _____ Other subjects taught: _____

Award Type: K – 6 Educator 7 – 12 Educator Retired Educator

Nominator: _____ Nominator's Telephone Number: _____

Mail Nomination Materials To:

MATHWEST
PO Box 139
Feeding Hills, MA 01030

Note about submissions:

All nominations must be received by February 15, 2005. The Board of Directors will review the submissions and determine the recipients. The nominators, the three recipients and the press will be notified of the Board's decision. Awards will be given at the MATHWEST Spring Conference on March 24, 2005.



The Association of Teachers of Mathematics in Western Massachusetts
Spring Conference
 PO Box 139
 Feeding Hills, MA 01030-0139

Phone: 413-789-2292
 Website: www.mathwest.org
 Email: SLTrahan@aol.com



**Register by February 15th
 and take \$10 off your
 registration fee.**

Registration Form

Mail to: MATHWEST Spring Conference, PO Box 139, Feeding Hills, MA 01030-0139

Name _____

Street _____ City _____ State _____ Zip _____

Phone _____ Email _____

Area of Primary Interest: Elementary Middle School Secondary College

Are you a member of MATHWEST? Are you a member of NCTM?

Luncheon Options: Chicken Caesar Salad Vegetarian Alternative

Conference Fee: Continental breakfast and luncheon is included.

All non-members will get a one-year MATHWEST membership with their registration.

Registration deadline is Friday, March 18th. **THERE WILL BE NO ON-SITE REGISTRATION.**

MATHWEST Members (before February 15th)	\$50	MATHWEST Members (before March 18th)	\$60
Non-Members (before February 15th)	\$65	Non-Members (before March 18th)	\$75

Amount Enclosed \$ _____ PO # _____

Please: If paying by PO, include the names and addresses of all people attending the conference covered by PO.