

Mational Council of Supervisors of Mathematics mathedleadership.org

On Track for Student Success: Mathematics Leaders Making a Difference 43rd NCSM Annual Conference April 11–13, 2011

Registration

Registration takes place the JW Marriott, Level Two, at the following times:

Sunday, April 10	2:00 PM to 7:00 PM
Monday, April 11	6:45 AM to 5:00 PM
Tuesday, April 12	6:45 AM to 12:30 PM 2:30 PM to 5:00 PM
Wednesday, April 13	7:30 AM to 10:30 AM

Sponsor Display Area

NEW THIS YEAR—EXTENDED DISPLAY HOURS ON MONDAY

Visit elite NCSM Sponsor Partners in Griffin Hall, Level Two of the JW Marriott, during the following times:

Monday, April 11 – 11:00 AM to 5:45 PM Tuesday, April 12 – 8:30 AM to 12:30 PM 2:30 PM to 4:00 PM

NCSM Business Meeting

The NCSM Business Meeting will be held on Monday, April 11, immediately following the Opening Session (9:30–10:30 AM) in the White River Ballroom on Level One of the JW Marriott. All members are invited and encouraged to attend and learn about the "State of the Organization" and opportunities for getting involved in NCSM.

Caucuses

Caucuses for NCSM regions, international attendees, and Past Presidents will be held Tuesday afternoon, April 12, 4:15 to 5:30. Details and a full schedule of caucuses are found on page 56.

Program book and cover design by Darin Brock, CORD Communications, Inc.; conference program book layout by Mark Whitney, CORD Communications, Inc.; conference logo design by Pearson.

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President's Message

Welcome to the 43rd NCSM Annual Conference in the wonderful city of Indianapolis, Indiana!

As mathematics education leaders, it is our responsibility to continuously work to improve our own professional practice so that we can better support and lead others. Our 43rd Annual Conference—*On Track for Student Success: Mathematics Leaders Making a Difference*—is designed to "fuel your leadership engine" through a rich professional development experience that meets your personal leadership needs.

This year's conference features an exciting mix of nearly 200 sessions by a variety of speakers individuals from outside of mathematics education as well as mathematics education leaders; first-time speakers, veterans, and perennial favorites—who will address current issues related to equity and access; leadership of curriculum, teaching and learning; and assessment, including the Common Core State Standards. A major focus of this year's conference is STEM (Science, Technology, Engineering, and Mathematics) education issues—including the implications of new technology developments for our work as mathematics education leaders.

The other conference content strands—Assessment of Students/Assessment of Teaching; Developing Coaches/Developing Teachers; and Teaching and Learning—address the key challenges confronting us as mathematics education leaders. Woven into each strand are sessions on interpreting and implementing the Common Core State Standards, including sessions on new NCSM tools to support your CCSS work. Last, but far from least, the program also features sessions that highlight how leaders have used the NCSM PRIME Leadership Framework as a tool at the school, district, and state levels to change adult practices and increase student achievement.

New this year is our collaboration with the NCTM Research Advisory Committee to provide joint sessions of interest to both practitioners and researchers. These sessions are open to registered attendees at both the NCSM Annual Conference and the NCTM Research Presession at no additional charge. Please see details on page 75. In addition, our Wednesday program features sessions of special interest to emerging mathematics education leaders.

Our Conference also provides a unique opportunity to network with national and international colleagues around issues of mathematics education leadership. Be sure to take advantage of scheduled networking opportunities, such as the Caucuses and Special Interest Group sessions, as well as informal opportunities throughout the conference.

Many thanks to hundreds of NCSM members who have offered their time to ensure the Annual Conference is a valuable professional learning experience, including speakers, program reviewers, and on-site volunteers. I especially want to recognize Cathy Carroll, Sandie Gilliam, Denise Walston, Steve Viktora, Janet Falkowski, and Lynn Raith who have voluntarily dedicated countless hours to make this conference a valuable experience for each of you. Thanks also to NCSM staff members who support the work of the NCSM Board—Terri Belcher, Dorothy Shadrick, and Melissa Anacker. Please take time to visit the Sponsor Display Area and thank our Sponsor Partners for their support of this Annual Conference and other NCSM activities.

Enjoy this opportunity to continue your professional learning with national and international mathematics education leaders. Have a wonderful conference!

Diane J. Briars NCSM President

Welcome to Indianapolis and the 43rd NCSM Annual Conference

We are glad you have joined us for the 43rd NCSM Annual Conference. These three days promise to be an exciting learning experience, offering you an opportunity to take advantage of nearly 200 sessions and events including:

- Monday morning's Opening Session with Diane J. Briars, NCSM President; Terri K. Belcher, NCSM Executive Director; and Sandie Gilliam, Program Chair. Welcoming remarks will be provided by Dr. Tony Bennett, Indiana Superintendent of Public Instruction
- Keynote Address by Karen Cator, Director, U.S. Department of Education Office of Educational Technology
- Twelve Major Sessions featuring renowned speakers on a variety of key topics of interest to mathematics educational leaders
- A new strand for 2011—STEM (Science, Technology, Engineering, & Mathematics)
- NCSM Annual Business Meeting on Monday, April 11, 2011, 9:30 AM - 10:30 AM, White River Ballroom, JW Marriott, Level One
- A lineup of special focus sessions of interest to mathematics specialists and coaches throughout the conference
- Elite Sponsor Displays on Monday and Tuesday, Griffin Hall, JW Marriott, Level Two
- A focus on emerging leaders in Wednesday's sessions
- Tuesday afternoon Caucuses and Wednesday afternoon • Special Interest Group Meetings
- New this year: A Wednesday afternoon session on a research agenda for the Common Core State Standards



Cathy Carroll, Conference



Janet R. Falkowski, Sponsor Liaison, Pittsburgh, PA



Sandie Gilliam, Program Coordinator, San Mateo, CA Chair, Colorado Springs, CO



Mary Lynn Raith, Sponsor Liaison, Pittsburgh, PA

jointly hosted by NCSM and the NCTM Research Pression

- Sponsor Showcases on Monday, Tuesday, and Wednesday
- Technology Showcases on Monday and Tuesday
- Sponsored continental breakfast (Monday—open to all)
- Sponsored breakfasts, lunches, and receptions (tickets ٠ required)

The conference committee is grateful to all those whose interest and efforts help to make the conference a rewarding experience for all those in attendance:

- Those who submitted proposals to speak-for your willingness to share your ideas and experience with your colleagues
- Program Proposal Reviewers-for your time and efforts in carefully reviewing the many proposals that were submitted for the program
- . On-Site Program Committee-for supporting our speakers and taking care of their on-site needs
- Local Support Committee-for helping to ensure a smooth-running conference
- NCTM Conference Services and the Conference Staffs of both the JW Marriott and Marriott Downtown hotels-for supporting logistics and on-site needs
- ACE Management—special thanks to Dorothy Shadrick, Melissa Anacker, and Martha Baeza. Their support throughout the planning process and "in the moment" at the conference help make things run ever-so-smoothly. Thank you, ladies!



Denise M. Walston, Volunteer Recruitment & Management Chair, Norfolk, VA



Steve Viktora, Regional Host, Winnetka, IL



Diane J. Briars, President, Pittsburgh, PA



Terri K. Belcher, Executive Director, Berkeley, CA

2011 Program Proposal Reviewers

Sandie Gilliam, Program Chair, Colorado Springs, CO

Linda Bailey Oklahoma City, OK

Edna Bazik Lisle, IL

Kathy Brown Bloomington, IN

Ralph Connelly Fonthill, ON

Dianne DeMille Anaheim, CA

Nancy Drickey McMinnville, OR

Denise Fairman Midlothian, VA

Carolyn Felux San Antonio, TX Nancy Foote Gilbert, AZ

Wendy Foreman Wake Forest, NC

Martha Franklin Visalia. CA

Linda Fulmore Cave Creek, AZ

Christina Gawlik Denton, TX

Donna Goldenstein San Leandro, CA

Karen Graham Durham, NH

Lori Hamada Fresno, CA **Alfreda Jernigan** Norfolk, VA

Diana Kendrick Ft. Washington, MD

Diane Kinch Claremont, CA

Steve Klass San Diego, CA

Pam Mason Porter Ranch, CA

Carol Matsumoto Winnepeg, NB

Chris Mickles Post Falls, ID

Sandy Schoff Anchorage, AK Robyn Silbey Gaithersburg, MD

Sherry Stokes Frankfort, IL

Charlene Tate Nichols Burlington, CT

Fern Tribbey Northbrook, IL

Casandra Turner Fort Collins, CO

Steve Viktora Winnetka, IL

Denise Walston Chesapeake, VA

Annette Zook Colorado Springs, CO

2011 On-Site Program Committee

Linda Bailey Oklahoma City, OK

Edna Bazik Lisle, IL

Ralph Connelly Fonthill, ON

Nancy Drickey McMinnville, OR **Denise Fairman** Midlothian, VA

Linda Fulmore Cave Creek, AZ

Donna Goldenstein San Leandro, CA

Lori Hamada Fresno, CA **Diane Kinch** Claremont, CA

Pam Mason Porter Ranch, CA

Carol Matsumoto Winnepeg, NB

Chris Mickles Post Falls, ID Sandy Schoff Anchorage, AK

Sherry Stokes Frankfort, IL

Fern Tribbey Northbrook, IL

Casandra Turner Fort Collins, CO

2011 Regional Support Committee

Steve Viktora, Regional Host, Winnetka, IL

Stacy Cartmel Westfield, IN

Nancy Cruse Indianapolis, IN **Nathan Keith** Brownsburg, IN

> **Jamie Phillips** Carmel, IN

Kathleen Rieke Zionsville, IN

Jill Russell Carmel, IN **Tammy Williams** Greensburg, IN

Program Overview

Strands

- 1. Assessment of Students/Assessment of Teaching Addresses ways leaders can help teachers develop the knowledge and skills necessary to ensure accurate monitoring of student learning and adjustment of teacher instruction for every student on a daily basis, including:
 - Designing learning opportunities for teachers to help them create and implement formative and summative assessments for improved student learning
 - Using current research and best practices (including technology) to inform assessment decisions
 - Employing assessment strategies that support learners from diverse backgrounds or learners not achieving at proficiency

2. Developing Coaches/Developing Teachers

Addresses coaching and professional development as important ways to support and encourage teachers for education reform in enhancing mathematics teaching and learning in their classrooms, including:

- Designing professional learning opportunities to help coaches and teachers become more effective in their work
- Applying current research and best practices to the coaching process for the improvement of mathematics instruction
- Strengthening the mathematics content knowledge of teachers through professional development and coaching

3. Teaching & Learning

Addresses the work of mathematics leaders in helping teachers develop the knowledge and skills necessary to ensure high-level, relevant, and meaningful mathematics in every lesson and access to that mathematics for every student, including:

- Examining models of curriculum for teachers (preservice and in-service) and how they are used to support mathematics teaching
- Using current research and best practices (including technology) to inform curricular designs to support students of diverse backgrounds and students not achieving at proficiency, including Response to Intervention (RtI) strategies
- Discussing curricula and other decisions that are important for the work of professional learning communities
- 4. STEM (Science, Technology, Engineering, & Mathematics)

Addresses ways leaders can support teachers in their efforts to encourage students, especially in middle and high schools, to pursue science, technology, engineering and mathematics, including:

- Forging business partnerships to increase STEM discipline outcomes in graduating seniors
- Considering the future of STEM education and systemic implications to increase attention to STEM in K-12 education

Session Types

- Opening Session with Keynote Address—Monday morning, 90 minutes
- NCSM Annual Business Meeting—Monday morning, 60 minutes
- NCSM Caucus Sessions-Tuesday afternoon, 75 minutes
- Major Sessions-Monday, Tuesday, and Wednesday, 60 minutes each
- Regular Sessions-Monday, Tuesday, and Wednesday, 60 minutes each
- Double Sessions-Monday, 120 minutes each
- Extended Sessions-Tuesday and Wednesday, 90 minutes each
- Sponsor Showcases-Monday, Tuesday, and Wednesday, 60 minutes each
- Technology Showcases-Monday and Tuesday, 60 minutes each
- Special Interest Group Meetings—Wednesday afternoon, 75 minutes
- Attend an NCSM Summer Leadership Academy. See our ad behind the Conference Information tab. Support the Iris Carl Mathematics Leadership Fund. See page 82 for more information.

General Information

Emergency Information

Call 911 for any medical emergencies.

Fire Code

Fire Code regulations apply to all conference session rooms. Sessions will be closed when seating capacity is reached. Regulations require that there is no standing, no sitting on the floor, and no moving of chairs from one room to another. We appreciate your cooperation in this matter.

Non-Smoking Policy

The NCSM Conference is a non-smoking event. Those who wish to smoke must do so outside the buildings in designated smoking areas.

Conference Badges and Bags

NCSM Conference name badges must be worn by attendees for admittance to conference sessions, meal functions, and the sponsor display area. One NCSM Conference bag is given to each registered participant who has an exchange ticket for the bag, as long as supplies last. Replacement bags and extra bags will not be distributed at the conference.

Conference Planner

A conference planner, located on page 101, is for your use in choosing a schedule of sessions and events to attend. Because all rooms have a limited seating capacity, it is suggested that you select at least one alternate session for each time slot in case your first choice is full.

Tips for a Successful Conference

If this is your first NCSM Conference, be sure to attend the First Timer's Session on Monday morning

- Become familiar with the locations of the session rooms and other conference venues
- Use the Conference Planner (page 101) to outline your daily schedule
- Select alternate session in each time slot in case your first choice is full
- Network with colleagues and share experiences about the different sessions you attend
- · Turn off cell phones during sessions and functions
- Visit the Sponsor Display Area in Griffin Hall on Level Two of the JW Marriott on Monday or Tuesday
- Attend the Sponsor Showcases and Technology Showcases in the Santa Fe and Lincoln Rooms on Level Two of the Marriott Downtown to learn about the latest educational products

Session Changes

The listings in this program book represent the latest conference information (as of publication date) and supersede all previously printed information. Be sure to also check the Program Supplement included in your conference bag for any last minute revisions. NCSM reserves the right to change speakers, facilities, or program content at any time.

Session Seating

Rooms have been set to conform to Fire Code. As per fire marshal orders, only those seated in chairs will be allowed to remain in the meeting rooms. Seating at all sessions is on a first-come, first-served basis. Seating capacities for the rooms are listed on the colored summary pages for each day in this program book.

Taping, Recording, or Photographing Sessions

Written permission to tape, record, or photograph sessions must be obtained directly from the speaker(s) before the session begins. The request must contain a statement indicating the intended use of such a tape, recording, or photograph as well as your name and contact information. A copy of the request should be given to the lead speaker.

NCSM Business Meeting

The NCSM Annual Business Meeting will take place on Monday, April 11, 2011, from 9:30 AM – 10:30 AM in the White River Ballroom on Level One of the JW Marriott.

Caucuses

The Caucuses are perfect opportunities for all conference attendees to network, collaborate, and communicate within each NCSM region. During the sessions, participants will:

- · Identify and discuss national issues
- Enhance leadership capacity
- Share information on opportunities for PD for math leaders
- Enjoy networking among members from their region
- · Learn about avenues for personal leadership in NCSM

Caucuses are for all national and international NCSM attendees and past presidents. All sessions will be held on Level One of the JW Marriott on Tuesday afternoon, April 12, 4:15 PM– 5:30 PM. See page 56 for the full schedule.

Refreshments will be served and door prizes will be drawn at each caucus.

General Information

Commercial Sessions

The conference program includes two types of commercial sessions. These sessions will be held in the Santa Fe and Lincoln Rooms, Level Two of the Marriott Downtown. See the daily schedule for session details.

- *Sponsor Showcases* are provided by NCSM elite sponsor partners to share information about their products.
- *Technology Showcases* focus on the latest products related to the use of technology.

Sponsor Display Area

The Sponsor Display Area has become an integral part of the educational services NCSM provides conference attendees. Attendees can examine current resources, explore trends and practices, review products and services, and engage in discussion with NCSM's elite sponsors. Be sure to make time in your schedule to visit the NCSM Sponsor Display Area in Griffin Hall, Level Two of the JW Marriott. Wear your conference name badge to gain entrance.

NEW THIS YEAR—EXTENDED DISPLAY HOURS ON MONDAY

Hours:

Monday, April 11	11:00 AM - 5:45 PM
Tuesday, April 12	8:30 AM - 12:30 PM
	2:30 PM - 4:00 PM

NCSM Annual Conference Sponsor Partners

Many sponsors generously support NCSM and its membership throughout the year. Acknowledgement of all NCSM sponsor partners for their contributions can be found starting on page 86.

We thank the following sponsors for their contributions to events related to the NCSM Annual Conference.

- Conference Program Book and Brochure—CORD Communications, Inc.
- Conference Bags—Pearson
- Conference Water Bottles—ETA/Cuisenaire
- Conference Neck Wallet—Scholastic Inc.
- Conference Media Production—HP Calculators
- Conference Signage—ExploreLearning
- Literary Gift: Classroom Discussions: Using Math Talk to Help Students Learn, Grades K-6 — Math Solutions
- Luggage Tags—Educators Outlet
- Portfolio—EAI Education
- Professional Reading: *The Teacher Development Continuum in the United States and China: Summary of a Workshop, NAS Report*—**Borenson and Associates, Inc.**

- Travel Drives—ORIGO Education, Inc.
- Bag Stuffing Refreshments—ETA/Cuisenaire
- Monday Continental Breakfast—MIND Research
 Institute
- Monday Box Lunch—Didax Education
- Monday Box Lunch—Math Teachers Press, Inc.
- Monday Reception—Carnegie Learning, Inc.
- Tuesday Breakfast—Scholastic Inc.
- Tuesday Luncheon—Texas Instruments
- Caucus Refreshments—ETA/Cuisenaire
- Tuesday Reception—Pearson
- Wednesday Breakfast—America's Choice
- Wednesday Lunch—CASIO AMERICA, INC. and Houghton Mifflin Harcourt

Ticketed Functions

Special Note for Monday's Box Lunch

Attendees with tickets for the box lunch may pick up a lunch any time between 11:30 AM and 12:45 PM in Griffin Hall on Level Two of the JW Marriott. Remaining lunches, if any, will be available on a first-come, first-served basis at 12:45 PM.

Frequently Asked Questions

Are meal function tickets automatically included in my registration? Meal functions are not included in the conference registration fee. Some of our sponsor partners graciously agree to host a meal function and provide a certain number of meals within their budget. If a seat was available for a particular function when you registered, an admission ticket was provided in your registration packet.

I have a meal ticket. Does that guarantee me a seat no matter what time I show up? If you have a ticket, don't be late! Experience has shown that some people with tickets opt to sleep in some mornings or make other plans at the last minute. In order to allow as many attendees as possible to enjoy the meal functions, when the ticketed line goes through, the waiting line will follow as soon as possible. If you are late, you may not get the meal for which you have a ticket. Please be on time.

What do I do with a meal function ticket I have, that I no longer need? You may turn in any tickets you won't use to the NCSM conference registration booth on Level Two at the JW Marriott. This will enable some without tickets to get into the event. You may also hand them to Denise Walston at any time during the conference.

What happens if people with tickets don't attend the function? Might I be able to get in? Unfortunately for both the sponsors and the conference attendees, many meals at previous conferences have gone uneaten when people with tickets didn't attend. Again this year, the waiting line will be permitted in to

General Information

eat once the ticketed line goes through and the start time for the function is reached. Depending on the function, there is a good chance of getting in, especially if you get in line early!

Is there a waiting list/waiting line for meal functions? Those without tickets may wait in the special line that will form to the side of the ticketed line, and will be let in as space becomes available after the ticketed line goes through.

Special Interest Group Meetings

A number of educational groups participate in NCSM's Special Interest Group meetings on Wednesday afternoon from 2:45 PM to 4:00 PM. This year's SIG topics are:

- Association of Mathematics Teacher Educators (AMTE)
- Educational Consultants: A Networking Opportunity
- Enhance Students' Problem Solving Skills Using the Mathematical Olympiads for Elementary and Middle Schools (MOEMS)
- Equity in Mathematics Education: TODOS
- Emerging Leaders: Focus Question/Answer Time
- Improving Student Achievement by Expanding Opportunities for Mathematically Promising Students: A New NCSM Position Paper
- Lesson Study Networking: Join Practitioners, Researchers, and Leaders in Sharing Lesson Study Resources and Questions
- Major revisions to the GED Test
- Math 2.0: New Opportunities for Collaborative Teaching and Learning Mathematics with Internet-Based Tools
- Toward Pedagogies of Teaching for Social Justice (Benjamin Banneker Association)
- Urban Mathematics Leadership Network (UMLN) Forum
- Walking Our Talk! NCSM PRIME Strategies for Mathematics Education Leaders to Promote and Achieve Equity

NEW THIS YEAR—Joint Session of NCSM and the NCTM Research Presession

We are pleased to announce the first combined NCSM/ NCTM Special Interest Group Session. In the session, Iris Weiss, President of Horizon Research, Inc., will discuss a research agenda for tracking the influence of the Common Core State Standards in Mathematics over time. The session will be held on Wednesday, April 13, from 2:45 to 4:00 PM in Marriott Ballroom 6 on Level Two of the Marriott Downtown. The session will be held in Marriott Ballroom 6, Marriott Downtown, Level Two.

Student Recognition Certificates

NCSM provides certificates as a means of honoring students who excel in the study of mathematics. All public, private, and parochial schools, as well as colleges and universities, that have at least one NCSM member in the area, are eligible to participate. Each school may receive up to two awards per year. Pick up certificates at the registration booth. More information about these certificates is available at **mathedleadership.org**.

Conference Feedback

You will receive an email in the week following the conference inviting you to share your feedback with the conference committee. We encourage you to take the time to complete the online survey, as your thoughts and opinions will be helpful to the planners of the 44th NCSM Annual Conference to be held in Philadelphia, PA, April 23–25, 2012.

Lost and Found

If you find an article you believe belongs to someone attending the NCSM Conference, please bring it to the NCSM registration booth on Level Two of the JW Marriott. Articles will be held there until 10:30 AM on Wednesday, at which time they will be turned over to the front desk at the JW Marriott.

NCTM Bookstore and Research Presession

The NCTM Bookstore is open to all NCSM registrants on Wednesday, April 13, from 10:00 AM to 5:00 PM in the Indianapolis Convention Center. NCSM registrants wearing their NCSM Conference badges will receive a 25% discount on purchases that day.

NCSM registrants wearing their NCSM Conference badges are welcome to attend the following NCTM Research Presession events:

- Opening Session on Monday evening, April 11, at 7:00 PM in Sagamore 4 at the Indianapolis Convention Center, where Dr. Magdalene Lampert will report on research investigating what resources might make ambitious mathematics teaching the norm in U.S. schools, and what stands in the way.
- · Wednesday sessions at the Indianapolis Convention Center

Local Attractions and Restaurants

Within walking distance of our conference hotels, you will find many wonderful downtown restaurants, representing a wide range of cuisines—something to satisfy just about any appetite. If it's shopping you're interested in, Circle Centre, a four-level urban mall, is a landmark in the heart of downtown, just a few short blocks from the conference hotels. To find out more about Indianapolis, go to *visitindy.com* or check with the hotel concierge desk.

2011 Conference Schedule Overview

Sessions and Events are held in both the JW Marriott and the Marriott Downtown. Please read descriptions carefully to make sure you are in the correct hotel for the session you wish to attend.

Date and Time	Event	Location
Monday, April 11		
6:45 AM – 5:00 PM	Advance & On-site Registration	Level Two, JW Marriott
6:45 AM – 7:30 AM	Complimentary Continental Breakfast – MIND Research Institute	White River Foyer, JW Marriott
7:30 AM – 9:00 AM	Opening Session & Keynote	White River Ballroom, JW Marriott
9:30 AM - 10:30 AM	NCSM Business Meeting	White River Ballroom, JW Marriott
9:30 AM - 11:45 AM	Major and Regular Sessions	JW Marriott & Marriott Downtown
9:30 AM - 11:45 AM	Commercial Sessions	Marriott Downtown, Level Two
9:30 AM - 11:30 AM	Double Sessions	JW Marriott & Marriott Downtown
11:00 AM - 5:45 PM	Sponsor Displays—PLEASE NOTE EXTENDED HOURS	Griffin Hall, JW Marriott
11:30 AM – 12:45 PM	Box Lunch – Didax & Math Teachers Press (ticket required) Any remaining lunches will be available on a first-come, first-served basis at 12:45 PM.	Griffin Hall, JW Marriott
12:00 PM - 5:00 PM	Double Sessions	JW Marriott & Marriott Downtown
12:15 PM – 5:00 PM	Major and Regular Sessions	JW Marriott & Marriott Downtown
12:15 PM - 5:00 PM	Commercial Sessions	Marriott Downtown, Level Two
5:45 PM - 7:00 PM	Reception – Carnegie Learning, Inc. (ticket required)	White River Ballroom, JW Marriott
Tuesday, April 12		
6:45 AM -12:15 PM	Advance & On-site Registration	Level Two, JW Marriott
7:30 AM - 8:30 AM	Breakfast – Scholastic Inc. (ticket required)	Marriott Ballroom, Marriott Downtown
8:30 AM -12:30 PM	Sponsor Displays	Griffin Hall, JW Marriott
8:45 AM – 12:15 PM	Major and Regular Sessions	JW Marriott & Marriott Downtown
8:45 AM – 12:15 PM	Commercial Sessions	Marriott Downtown, Level Two
8:45 AM – 12:00 PM	Extended Sessions	JW Marriott & Marriott Downtown
12:30 PM - 2:30 PM	Luncheon – Texas Instruments (ticket required)	Marriott Ballroom, Marriott Downtown
2:30 PM - 4:00 PM	Sponsor Displays	Griffin Hall, JW Marriott
2:30 PM - 5:00 PM	Advance & On-site Registration	Level Two, JW Marriott
2:45 PM – 3:45 PM	Major and Regular Sessions	JW Marriott & Marriott Downtown
2:45 PM – 3:45 PM	Commercial Sessions	Marriott Downtown, Level Two
2:45 PM – 4:15 PM	Extended Sessions	JW Marriott & Marriott Downtown
4:15 PM - 5:30 PM	Caucus Meetings	JW Marriott
5:45 PM - 7:00 PM	Reception – Pearson (ticket required)	Marriott Ballroom, Marriott Downtown
Wednesday, April 13		
7:30 AM – 10:30 AM	Advance & On-site Registration	Level Two, JW Marriott
7:30 AM - 8:30 AM	Breakfast – America's Choice (ticket required)	White River Ballroom, JW Marriott
8:45 AM – 12:15 PM	Major and Regular Sessions	JW Marriott & Marriott Downtown
8:45 AM – 12:15 PM	Commercial Sessions	Marriott Downtown, Level Two
8:45 AM - 12:00 PM	Extended Sessions	JW Marriott & Marriott Downtown
12:30 PM – 2:30 PM	Luncheon – CASIO AMERICA, INC. & Houghton Mifflin Harcourt (ticket required)	White River Ballroom, JW Marriott
2:45 PM - 4:00 PM	Special Interest Group Meetings	JW Marriott & Marriott Downtown
2:45 PM - 4:00 PM	Joint Session of NCSM and NCTM Research Presession	Marriott Downtown, Level Two

Note: Commercial Sessions = Sponsor Showcases & Technology Showcases

Program Summary Information for Monday, April 11, 2011

See page 5 for Conference Strand descriptions.

						ι	Obeu	lay	Sponsor Displ	:00	:11
	ite River Ballroom allroom	JW Marriott 204–205 (100)	Session 112 Intermediate (3–5), Strand 2 <i>Martin</i> , <i>Supporting Change</i> <i>Through a Coaching Model</i>		Session 123 General, Strand 3 Parrish, Using Number Talks to Build Mental Mathematics and Computation Strategies		on and Math Teachers Press,	Session 134	General, Strand 3 Balka, Hull, Harbin Miles, Visible Thinking: A Pathway to Classroom Equity		Session 153 Intermediate (3–5), Strand 3 <i>Zeringue, Schwinden</i> , <i>Implementing New</i> <i>Curriculum Well: What Does</i> <i>It Take?</i>
	larriott: White River Ballroom andie Gilliam, JW Marriott: Wh en, JW Marriott: White River B	JW Marriott 203 (74)	Session 106 General, Strand 2 Dobbins, Warrick, Coaching Commitments and Skills for Making a Difference in Student Achievement		Session 128 Secondary (9–12), Strand 3 Secondary (9–12), Strand 3 Steketee, Dynamic Geometric Pathways to Functions Promote Understanding of the Variation of Variables and the Behavior of Functions), Sponsored by Didax Educatio	Session 136	General, Strand 3 Scott , Quantiles—A Powerful New Way to Track Student Success		Session 152 General, Strand 3 General, Lessons from Singapore: Can Singapore's Visual Models and Problem Solving Approach Help Teachers Move Students from Arithmetic to Algebra?
ummary	MIND Research Institute, JW M , Diane Briars, Terri Belcher, S. room oort, Diane Briars, Randy Pipp	JW Marriott 201–202 (100)	Session 116 General, Strand 4 <i>Cator, Gilliam, Keller,</i> <i>Thomas, Suzanne Mitchell,</i> <i>Panel: The Meeting of the</i> <i>Minds: The Future of STEM</i> <i>Education</i>				come first served 12:45–1:00		Session 148 Middle (6–8), Strand 3 Brown, Miller, Differentiating Problem Solving: Using Open and Parallel Tasks (Grades 3–8)		
Monday Summary	et required), compliments of / 43rd NCSM Annual Conference JW Marriott: White River Ball 15tate of the Organization Rej	JW Marriott 104 (50)	Session 119 Middle (6–8), Strand 1 Petit, Laird, Hulbert, Facilitating the Use of Formative Assessment when Teaching Fractions: A Case of Research to Practice—Vermont Mathon Consis A Accomment	Project (OGAP)			1:30–12:45; waiting line, first		Session 146 Intermediate (3–5), Strand 2 Fierle, Murawski, Mathematics Coaches Leading Professional Learning Communities (PLCs)—Key Ingredients to	Developing Mathematical Understanding	
	 G:45–7:30: Session 100: Continental Breakfast (no ticket required), compliments of MIND Research Institute, JW Marriott: White River Ballroom 7:30—8:00: Session 101, Opening Session: Welcome to 43rd NCSM Annual Conference, Diane Briars, Terri Belcher, Sandie Gilliam, JW Marriott: White River Ballroom 8:00—9:00: Session 102, Keynote Address, Karen Cator, JW Marriott: White River Ballroom 9:30—10:30: Session 109, NCSM Business Meeting and State of the Organization Report, Diane Briars, Randy Pippen, JW Marriott: White River Ballroom 	JW Marriott 103 (50)	Session 120 Secondary (9–12), Strand 3 Nolan , How to Reach the Unreachable in Algebra I				11:30—1:00: Session 132, Box Lunch (ticket required 11:30—12:45; waiting line, first come first served 12:45—1:00), Sponsored by Didax Education and Math Teachers Press, Inc., JW Marriott: Griffin Hall		Session 145 General, Strand 2 Wang-Iverson, Askey, Palumbo, Acres, Tracking Student Thinking Toward Student Success		
	6:45-7:30: Session 100: 7:30-8:00: Session 101, 8:00-9:00: Session 102, 9:30-10:30: Session 10	JW Marriott 101–102 (100)	Session 105 General, Strand 2 Neral, Using Great Data to Create Greater Success for Teachers and Students		Session 126 Intermediate (3–5), Strand 3 <i>Felux, Common Core:</i> <i>Connecting the Standards</i> <i>for Mathematical Practice to</i> <i>the Standards for Content</i> — <i>Number and Operations in</i> <i>Base Ten</i>		11:30–1:00: Session 13 Inc., JW Marriott: Griffin Hall	Session 142	Secondary (9–12), Strand 1 Matsuura, Cuoco, Stevens, Sword, Mathematical Habits of Mind for Teaching: Assessing Mathematical Knowledge for Teaching at the Secondary Level		Session 154 Intermediate (3–5), Strand 1 Bradley, Cory, Blackmon, Learning Together in the Classroom: Principals, Teachers, and Mathematics Coaches Listening to Student Thinking
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JW Marriott 204–205 (100)	Session 163 General, Strand 1 Paek, Translating the Common Core Effectively into Practice	Session 185 Middle (6–8), Strand 1 Bazik , Mathematics Assessment Beyond Quizzes and Tests
JW Marriott 203 (74)	Session 164 Session 163 Intermediate (3–5), Strand 2 General, Strand 1 Yopp, Burroughs, Sutton, Paek, Translating Research in Mathematics Common Core Ethereting Instructional Coaching into Practice	Session 184 Middle (6–8), Strand 4 <i>Nisbet, Techno Tools for</i> <i>Conceptual Understanding</i>
JW Marriott 201–202 (100)	Session 173 General, Strand 3 Parker, Mesplé, Breaking the Cycle of Failure: Middle and High School Students and Teachers Learning Mathematics Together	
JW Marriott 104 (50)	Session 172 General, Strand 2 Wallace, Tracking a Course with Professional Learning: Coaching to Promote Mathematics Leaders	
JW Marriott 103 (50)	Session 176 Session 172 Intermediate (3–5), Strand 2 Session 172 Bastable, Schifter, Vallace, Tracking Analyzing Addition and With Professional Subtraction Strategies: Wathematics Lead Helping Teachers Help Mathematics Lead	Connections Across Multiple Representations and to Explain Their Reasoning
JW Marriott 101–102 (100)	Session 165 Strand 3 Intermediate (3–5), Strand 3 Session 176 Zimmer, Jesberg, Address- ing Equity by Strengthening Intermediate (3–5), the Mathematics Vocabulary for All Students Through the Analyzing Addition a Use of High-Interest Ma- nipulatives and Marzano's Subtraction Strategi Helping Teachers He Students to Make	Session 183 Middle (6–8), Strand 3 Mitchell, Grifith, Mathematics Leaders Make a Difference in the Accuracy of Mathematics Content Delivered in the Classroom
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5:45-7:00: Session 189, Monday Reception (ticket required), Sponsored by Carnegie Learning, Inc., JW Marriott: White River Ballroom

Monday Summary

6:45-7:30: Session 100: Continental Breakfast (no ticket required), compliments of MIND Research Institute, JW Marriott: White River Ballroom

7:30–8:00: Session 101, Opening Session: Welcome to 43rd NCSM Annual Conference, Diane Briars, Terri Belcher, Sandie Gilliam, JW Marriott: White River Ballroom

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9:30 10:30	Session 110 Primary (PK–2), Strand 3 <i>Fuson, Kuske,</i> <i>Implementing the NRC Early</i> <i>Childhood Mathematics</i> <i>Goals by Integrating Within</i> <i>and Across Number and</i> <i>Geometry Goals</i>	Session 115: Didax Education Technology Showcass Primary PK–2 <i>Richardson, Improve</i> Mathematics Instruction with Kathy Richardson's Formative Assessment	Session 108 General, Strand 3 Risberg, Fetter, Moving Your Faculty Toward Diagnostic Teaching, Formative Assessment, and Individualized Instructional Techniques	Session 117 Intermediate (3–5), Strand 1 Moynihan, What Mathematics Instruction Should Look, Sound, and Feel Like in the 21st Century: Helping Administrators Make Sense of It All	Session 118 Intermediate (3–5), Strand 2 Miller, Shaneyfelt, Learning from Analysis of Student Learning	Session 103: Major Session General Basmussen, Confronting Boredom in Mathematics Classrooms: Will CCSS Make Mathematics More Engaging?	1
10:45	Session 125 General, Strand 2 Gichobi, Akwaji- Anderson, A Framework of Understanding the Mediating Role of District Leaders	Session 131: Math Solutions Technology Showcase General Hidatgo, Felux, Freeman, Face-to-Face vs. Online Professional Development? Do Both! The Power of the Blended Model				Session 121: Major Session General General, Geometric Priscoll, Geometric Heasoning and Problem Solving: Keys to Success for English Language Learners	
11:45	11:30–1:00 : Session 13 Inc., JW Marriott: Griffin Hall	1 32, Box Lunch (ticket required '	11:30-1:00: Session 132, Box Lunch (ticket required 11:30-12:45; waiting line, first come first served 12:45-1:00), Sponsored by Didax Education and Math Teachers Press, Inc., JW Marriott: Griffin Hall	: come first served 12:45–1:00)	ı, Sponsored by Didax Educatio	n and Math Teachers Press,	
12:15	Session 138 Intermediate (3–5), Strand 3 Jesberg, Zimmer, Helping Teachers When Students Say That Their Teachers Talk and Write in a Secret Mathematics Code and They Don't Get It!	Session 144: Carnegie Learning, Inc. Technology Showcase Middle (6–8) <i>Ritter, Launch of the</i> <i>Carnegie Learning</i> ® Mathematics Series (Middle School)	Session 140 Middle (6–8), Strand 3 Tassell, Sheffield, Exploring Mathematics in the Middle Grades: Progress Being Made!		Session 147 Intermediate (3–5), Strand 3 Cochran, Economopoulos, Computational Fluency in Multiplication: How Many Strategies Are There?	Session 133: Major Session General General <i>Seago, Understanding the</i> <i>Challenges Face</i> <i>in Using a Transformational</i> <i>Approach to Mathematical</i> <i>Similarity</i>	
1:15 1:30 2:00 2:30	Session 151 General, Strand 2 Ghancellor, Schielack, Thriving, Not Just Surviving: Nurturing Mathematical Leadership in Elementary Classroom Teachers	Session 160: ExploreLearning Technology Showcase Grades 3–12 <i>0'Brien, Using Online</i> <i>Simulations to Improve</i> <i>Simulations to Improve</i> <i>Conceptual Understanding</i> <i>in Mathematics</i>	Session 150 General, Strand 2 Bradsby, Greenes, Gojak, Leinwand, A Panel of NCSM Past Presidents Presents Potential Solutions to Perplexing Problems			Session 149: Major Session General Briars, Implementing the Nore Challenging Aspects of Common Core State Standards	

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2:45		Session 171: ORIGO Education, Inc. Technology Showcase PK–8 <i>Nickerson, Burnett,</i> <i>Facilitating Teachers'</i> <i>Professional Learning</i> <i>Through Online Resources</i>	Session 169 Secondary (9–12), Strand 1 Secondary (9–12), Strand 1 <i>Zarach, Citonelli, Student</i> <i>Involvement? Motivation?</i> What Cornes First? Using the Principles of Formative Assessment to Motivate Urban Middle and High School Students	Session 174 General, Strand 3 Bush, Briars, Mills, Simpson Leak, Common Oore State Standards Instructional Materials Analysis Tools	Session 175 Primary (PK–2), Strand 1 <i>Miller, Christensen,</i> <i>Inspiring PK–2 Students to</i> Be Problem Solvers	Session 161: Major Session General Malloy, Light Masters in Mathematics Leadership: Helping Students Unlock the Doors	Area Open
3:45							lay.
4:00 5:00	Session 178 General, Strand 3 Moore, Bintz, Everybody is Talking About Rigor, but No One Is Talking About Rigor	Session 188: Agile Mind Technology Showcase Middle (6–8), Secondary (9–12) Cook, Hudson Hull, Using Technology for Student Success in 6–12 Mathematics	Session 182 Intermediate (3–5), Strand 2 Spinelli, Vitale, Analyzing Student Work: A Powerful Professional Learning Experience			Session 177: Major Session General General <i>Smith</i> , Orchestrating Productive Mathematical Discussions: Helping Teachers Move Beyond "Showing and Telling"	Sponsor Disp
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	5:45-7:00: Session 18	5:45—7:00: Session 189, Monday Reception (ticket required), Sponsored by Carnegie Learning, Inc., JW Marriott: White River Ballroom	t required), Sponsored by C	arnegie Learning, Inc., JW N	larriott: White River Ballro	ш	

Monday Summary

6:45-7:30: Session 100: Continental Breakfast (no ticket required), compliments of MIND Research Institute, JW Marriott: White River Ballroom

7:30–8:00: Session 101, Opening Session: Welcome to 43rd NCSM Annual Conference, Diane Briars, Terri Belcher, Sandie Gilliam, JW Marriott: White River Ballroom 8:00–9:00: Session 102, Keynote Address, Karen Cator, JW Marriott: White River Ballroom

9:30–10:30: Session 109, NCSM Business Meeting and State of the Organization Report, Diane Briars, Randy Pippen, JW Marriott: White River Ballroom

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9:30	Session 104 General, Strand 2 Fennell, Sammons, Wray, Kobett, Mathematics Specialists/Coaches and Relationships: Navigat- ing the Slippery Slopes of Leadership	Session 113 Middle (6–8), Strand 1 Lofgren, Mayer, Mullins The Impact of Teacher Professional Development on Student Achievement	Session 111 Session 107 Intermediate (3-5), Strand 3 General, Strand 30 O'Connell, Transforming Kanter, Costello, Hanter, Costello, Costello, Hanter, Co	Session 107 General, Strand 30 <i>Kanter, Costello, Helping</i> <i>Elementary/Middle School</i> <i>Principals Become Strong</i> <i>Mathematics Advocates</i>	Session 114: Math Solutions Sponsor Showcase General <i>Chapin, Let's Talk About</i> <i>Mathematics: Key</i> <i>Discussion Topics and</i> <i>Problems</i>	
10:30 10:45						
	Session 122	Session 129	Session 127	Session 124	Session 130: Borenson and	
	General, Strand 2	Secondary (9–12), Strand 3	Intermediate (3–5), Strand 3 General, Strand 20	General, Strand 20	Associates, Inc. Sponsor	
	Leinwand, Moving Beyond	Malik, Hillen, Exploring the	Gojak, CCSS: Examining the Nesbitt, Kovacic, Lessons	Nesbitt, Kovacic, Lessons	Showcase	
	Typical Professional	Potential of Sorting Tasks	tice	Learned from Lesson Study:	General	
	Development That Doesn't	in Developing Teachers'	in Grades 3–5 and Their	One School's Experience	Bailey, With Hands-On	
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	Session 122	Session 129	Session 127	Session 124	Session 130: Borenson and	
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11:45					Introduction to Algebra!	

11:30–1:00: Session 132, Box Lunch (ticket required 11:30–12:45; waiting line, first come first served 12:45–1:00), Sponsored by Didax Education and Math Teachers Press, Inc., JW Marriott: Griffin Hall

12:15	Session 139 Middle (6–8), Strand 3 Milou, Designing and Teaching Mathematics Lessons to the iGeneration	Session 141 Middle (6–8), Strand 2 Schefelker, Hedges, Laughlin, Developing Math Professional Development Sessions: Improving MKT in District Leaders	Session 137 Session 137 Intermediate (3-5), Strand 1 General, Strand 20 Pitvorec, Haake, Kise, Tapping Teach Assessment of and FOR Kitengths to Develor Learning: How to Use Nathematical Strent Summative Assessments to Each Child	Session 135 General, Strand 20 Kise, Tapping Teachers' Strengths to Develop the Mathematical Strengths in Each Child	Session 143: It's About Time Publishing Sponsor Showcase Secondary (9–12) <i>Kearns, Incorporating Technology with a</i> Standards-Based Program	
1:15 1:30					Produces Results	
	158 ury (9–12), High Schoc atics in a Co in Revolution ion, or Life	Strand 3 Session 156 Strand 3 Middle (6–8), Strand 3 Middle (6–8), Strand 3 <i>Davenport, Sajdak, Henry,</i> <i>Padiness for Algebra I in</i> <i>Grade 8: What Does It Take</i> <i>as to Provide Greater Access</i>	Session 155 Middle (6–8), Strand 3 McMillen, Friedland, Ordering for Success: Integrating Literacy Strategies and Graphic	Session 157 Middle (6–8), Strand 10 <i>Olson, Olson, Why Is Learning About Formative</i> Assessment in a Networked Classroom Contagious?	Session 159: ETA/ Cuisenaire Sponsor Showcase General Moore, Virtual Manipulatives? Interactive	
2:30	Usual?	to Algebra in Our Urban Districts	Organizers to Teach Mathematics Content		Whiteboards? What Does Hands-On Really Mean Today?	

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3:45					
 4:00 Session 179 General, Strand 3 General, What's the X? Developing Algebraic Thinking Through Explorations in Number, Measurement, Geometry, and Probability 	nd 3 at's the X? gebraic ugh n Number, t, Geometry, ty	Session 180 General, Strand 3 <i>Rahming, Pruske,</i> <i>Hollinger, How Do You</i> <i>Know Students Learned</i> <i>What You Just Taught?</i>	Session 186 Secondary (9–12), Strand 1 Kranendonk, Designing a Continuum of Learning to Assess Mathematical Practice of the Common Core State Standards	Session 181 Intermediate (3–5), Strand 3 <i>Knoell</i> , Helping Teachers Establish Environments and Embrace the Importance of Real-Life Problem Solving and the Development of Mathematical Thinking and Reasoning	Session 187: Carnegie Learning, Inc. Sponsor Showcase Middle (6–8) <i>Bartle, McClure, Thomas,</i> <i>How Are We Getting</i> <i>Students to Think More</i> <i>Students to Think More</i> <i>Deeply About Mathernatics?</i>
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Monday Sessions by Strand

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JW Marriott: 104	JW Marriott: 103	Marriott Downtown: Marriott Ballroom 1
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Marriott Downtown: Marriott Ballroom 7

Location

Session 113 Marriott Downtown: Marriott Ballroom 8-9

JW Marriott: 101-102 JW Marriott: 101-102 Marriott Downtown: Marriott Ballroom 10

JW Marriott: 204-205

9:30-10:30

Time

Strand 1: Assessment of Students/

Assessment of Teaching

	Strand 3: Teaching & Learning	ng
Session	Location	Time
107	Marriott Downtown: Marriott Ballroom 10	9:30-10:30
108	Marriott Downtown: Marriott Ballroom 1	9:30-10:30
110	Marriott Downtown: Austin/Boston	9:30-10:30
111	Marriott Downtown: Marriott Ballroom 8-9	9:30-10:30
120	JW Marriott: 103	9:30-11:30
123	JW Marriott: 204-205	10:45-11:45
126	JW Marriott: 101-102	10:45-11:45
127	Marriott Downtown: Marriott Ballroom 8-9	10:45-11:45
128	JW Marriott: 203	10:45-11:45
129	Marriott Downtown: Marriott Ballroom 7	10:45-11:45
134	JW Marriott: 204-205	12:15–1:15
136	JW Marriott: 203	12:15–1:15
138	Marriott Downtown: Austin/Boston	12:15–1:15
139	Marriott Downtown: Marriott Ballroom 6	12:15–1:15
140	Marriott Downtown: Marriott Ballroom 1	12:15–1:15
147	Marriott Downtown: Marriott Ballroom 4	12:30–2:30
148	JW Marriott: 201-202	12:30–2:30
152	JW Marriott: 203	1:30–2:30
153	JW Marriott: 204-205	1:30–2:30
155	Marriott Downtown: Marriott Ballroom 8-9	1:30–2:30
156	Marriott Downtown: Marriott Ballroom 7	1:30–2:30
158	Marriott Downtown: Marriott Ballroom 6	1:30–2:30
165	JW Marriott: 101-102	2:45-3:45
166	Marriott Downtown: Marriott Ballroom 8-9	2:45-3:45
168	Marriott Downtown: Marriott Ballroom 6	2:45-3:45
173	JW Marriott: 201-202	3:00-5:00
174	Marriott Downtown: Marriott Ballroom 2-3	3:00-5:00
178	Marriott Downtown: Austin/Boston	4:00-5:00

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179	180	181	183	

Strand 4: STEM (Science, Technology, Engineering, & Mathematics)

Lesson	Location	Time
116	JW Marriott: 201-202	9:30-11:30
167	Marriott Downtown: Marriott Ballroom 10	2:45-3:45
184	JW Marriott: 203	4:00-5:00

Strand 2: Developing Coaches/ **Developing Teachers**

3:00-5:00 4:00-5:00

4:00-5:00

Marriott Downtown: Marriott Ballroom 8-9

186

JW Marriott: 204-205

2:45-3:45

Marriott Downtown: Marriott Ballroom 1 Marriott Downtown: Marriott Ballroom 4

Session	Location	Time
104	Marriott Downtown: Marriott Ballroom 6	9:30-10:30
105	JW Marriott: 101-102	9:30-10:30
106	JW Marriott: 203	9:30-10:30
112	JW Marriott: 204-205	9:30-10:30
118	Marriott Downtown: Marriott Ballroom 4	9:30-11:30
122	Marriott Downtown: Marriott Ballroom 6	10:45-11:45
124	Marriott Downtown: Marriott Ballroom 10	10:45-11:45
125	Marriott Downtown: Austin/Boston	10:45-11:45
135	Marriott Downtown: Marriott Ballroom 10	12:15-1:15
141	Marriott Downtown: Marriott Ballroom 7	12:15-1:15
145	JW Marriott: 103	12:30–2:30
146	JW Marriott: 104	12:30–2:30
150	Marriott Downtown: Marriott Ballroom 1	1:30–2:30
151	Marriott Downtown: Austin/Boston	1:30–2:30
162	Marriott Downtown: Marriott Ballroom 7	2:45-3:45
164	JW Marriott: 203	2:45-3:45

Monday Continental Breakfast



Compliments of MIND Research Institute 6:45 AM-7:30 AM JW Marriott: White River Ballroom (no ticket required)

MIND Research Institute is a neuroscience and education non-profit corporation dedicated to education program excellence and cutting edge scientific research. MIND Research Institute has transferred more than 30 years of breakthrough brain and learning research into applied education programs for K-12 students.

Visit MIND Research Institute at booth 405 in the sponsor display area or at www.mindresearch.net.

Opening Session (7:30–8:00)

Session 101 JW Marriott: White River Ballroom Welcome to the 43rd NCSM Annual Conference





Diane J. Briars, President, Pittsburgh, PA

Terri K. Belcher, Sandie Gilliam, Executive Director. Program Chair, Berkeley, CA Colorado Springs, CO

Dr. Tony Bennett, Indiana Superintendent of Public Instruction



Dr. Tony Bennett, Indiana Superintendent of Public Instruction, leads a Department of Education focused on student learning and implementing his vision that "the academic achievement and career preparation of all Indiana students will be the best in the United States and on par with the most competitive countries in the world."

Bennett's aggressive goals include creating and promoting a statewide culture of academic excellence in which at least 90 percent of students pass both Math and English/Language Arts sections of ISTEP+ and End-of-Course Assessments; 25 percent of all graduates receive a score of 3, 4 or 5 on at least one Advanced Placement exam, a 4 or higher on an International Baccalaureate exam, or receive the equivalent of 3 semester hours of college credit during their high school years; and 90 percent of students graduate from high school. Recognizing the effort and leadership necessary to ensure all Hoosiers graduate from high school ready for college or a career, Bennett created the Graduation Rate Performance Program to reward principals and educators whose guidance and leadership result in increased graduation rates.

For more than 20 years, Bennett has served as a teacher, coach, and administrator, helping ensure Indiana's students receive the first-class education they deserve. After nine years in the classroom as a science teacher, Dr. Bennett began his career in administration, quickly developing a reputation as a gifted leader with a talent for school management, strategic planning and efficient budgeting.

Bennett received his EdD and Indiana superintendent's license from Spalding University. He earned his certification in secondary administration and supervision and both a bachelor's and master's of science degrees in secondary education from Indiana University Southeast.

Keynote Address (8:00-9:00)

Session 102: Major Session

General **Powered by Technology**

JW Marriott: White River Ballroom **Transforming American Education: Learning**

Karen Cator, U.S. Department of Education Office of Educational Technology, Washington, DC

Presider: Sandie Gilliam, NCSM First Vice President

The National Education Technology Plan articulates a vision for a 21st century model of learning. Cator will provide an overview of the plan and conduct a discussion around the vision, recommendations, and actions, as well as the barriers to adoption.



Karen Cator is the director of the Office of Educational Technology at the U.S. Department of Education. She has devoted her career to creating the best possible learning environments for this generation of students. Prior to joining the department, Cator directed Apple's leadership and advocacy efforts in education. In this role, she

focused on the intersection of education policy and research, emerging technologies, and the reality faced by teachers, students, and administrators.

Cator joined Apple in 1997 from the public education sector, most recently leading technology planning and implementation in Juneau, Alaska. She also served as special assistant for telecommunications for the Lieutenant Governor of Alaska. Cator holds a master's degree in school administration from the University of Oregon and bachelor's degree in early childhood education from Springfield College. She is the past chair of the Partnership for 21st Century Skills and has served on several boards, including the Software & Information Industry Association's Education Division.

Monday 9:30–10:30

Session 103: Major Session

General

Marriott Downtown: Marriott Ballroom 5

Confronting Boredom in Mathematics Classrooms: Will Common Core State Standards Make Mathematics More Engaging?

Steven Rasmussen, Key Curriculum Press, Emeryville, CA Presider: Sara Munshin, NCSM Regional Director Interviews with students in widely dispersed settings, conducted informally by the speaker, have revealed that high school students generally find mathematics classes the most boring of their school experiences. For two decades, NCTM has advocated for a mathematics curriculum that included inquiry and investigation among its foundations-a curriculum that could engage students in "doing" mathematics. Unfortunately, boredom has continued to dominate the experience for too many students. Now, with the wide-scale adoption of the Common Core State Standards (CCSS), we have a new opportunity. In a report on a summer 2010 conference organized by the Center for the Study of Mathematics Curriculum (CSMC) titled Curriculum Design, Development, and Implementation in an Era of Common Core State Standards, authors Jere Confrey and Erin Krupa wrote that the period of adoption of CCSS "represents a critical transition period, replete with the combined opportunities and responsibilities to define the meaning of the CCSS in relation to classroom practices on a large-scale." What does this mean? Might the CCSS make mathematics more engaging for students? The speaker will unpack this idea, share thinking from the CSMC conference, offer ideas from his perspective as a publisher who is an advocate for change, talk about the CCSS "Mathematical Practices," and show examples of engaging classrooms (revealing his personal interest in technology in the process).



Steven Rasmussen is co-founder, publisher, and "advocate for change" at Key Curriculum Press, where he has worked for four decades on software and textbook development. He has authored workbooks and has served as principal investigator on two NSF projects. Rasmussen has degrees in mathematics and mathematics education from Temple

University. He taught secondary mathematics for seven years in Pennsylvania and California.

He serves on boards of many organizations, including his local Emery Education Fund, the Massachusettsbased Consortium for Mathematics and its Applications (COMAP), Women and Mathematics Education (an NCTM affiliate), Business for Science, Math and Related Technologies Education (an education advocacy organization in California), the Center for the Study of Mathematics Curriculum, and the Friday Institute at North Carolina State University.

Rasmussen has given hundreds of workshops and talks on mathematics teaching at national and international professional meetings and has worked on projects throughout Asia.

Session 104 Strand 2

General Marriott Downtown: Marriott Ballroom 6

Mathematics Specialists/Coaches and Relationships: Navigating the Slippery Slopes of Leadership

The Elementary Mathematics Specialists and Teacher Leaders Project (EMS&TL) explores elements of leadership that contribute to your success as a Mathematics Specialist. Session participants will examine leadership issues specialists confront and explore cases, which reflect content and pedagogical needs, adult learning, and effective communication techniques.

Francis (Skip) Fennell, McDaniel College, Westminster, MD Kay Sammons, Howard County Public School System, Ellicott City, MD

Jonathan Wray, Howard County Public School System, Ellicott City, MD

Beth Kobett, Stevenson University, Stevenson, MD

Session 105 General Strand 2 JW Marriott: 101-102 Using Great Data to Create Greater Success for Teachers and Students

Assessment data gives teachers vibrant information about their students. Once teachers familiarize themselves with the data, they can tailor their instruction and design it to target specific needs, interests, and goals. This session will help teachers decipher the data and lead their students to greater conceptual proficiency.

John Neral, District of Columbia Public Schools, Washington, DC

Session 106 General Strand 2 JW Marriott: 203 Coaching Commitments and Skills for Making a Difference in Student Achievement

Gain skills for developing coaches to build teacher leaders that will make a difference with struggling learners. Connect to commitments and collaboration methods for traditional or virtual environments. Transform perspectives of coaches, teachers, students, and parents. Research data shows proven success in low socioeconomic schools. Skills aligned with NCSM's PRIME Leadership Framework.

Catherine Dobbins, Southern Arkansas University, Magnolia, AR

Pam Warrick, Walden University, Minneapolis, MN

Session 107 Strand 3

General

Strand 3 Marriott Downtown: Marriott Ballroom 10 Helping Elementary/Middle School Principals Become Strong Mathematics Advocates

There is an urgency for principals to become strong advocates for excellence in mathematics. Participants will receive a rubric for self-examination of characteristics of principals who build strength in their mathematics programs. The conclusion will include steps for getting started in the process of creating an exceptional mathematics school.

Patsy Kanter, PK Consultants, New Orleans, LA Cynthia Costello, First Line Schools, New Orleans, LA

Monday 9:30–10:30 (continued)

Session 108	
Strand 3	Marriott Downtown: Mar
Moving Vour Eacu	Ity Toward Diagnostic

General

rriott Ballroom 1 Moving Your Faculty Toward Diagnostic Teaching, Formative Assessment, and Individualized Instructional Techniques

Many second-career teachers are teaching before they are certified, relying on instructional techniques with which they were taught. Learn about the strategies that the Math Forum uses to help move teachers, both novice and experienced, toward more effective instructional methods, including diagnostic teaching and formative assessment through evaluating student work.

Steve Risberg, The Math Forum @ Drexel University, Philadelphia, PA

Annie Fetter, The Math Forum @ Drexel, Philadelphia, PA

JW Marriott: White River Ballroom Session 109 **NCSM Business Meeting and State of the Organization Report**

NCSM President Diane Briars will present the State of the Organization Report, including progress on the 2010–2011 NCSM projects and initiatives, newly released position papers, enhancements to the NCSM website, and anticipated strategic priorities for 2011–2012. Treasurer Randy Pippen will describe the current financial status of the organization.

Diane Briars, NCSM President, Pittsburgh, PA Randy Pippen, NCSM Treasurer, Denver, CO

Session 110 Primary (PK-2) Strand 3 **Marriott Downtown: Austin/Boston** Implementing the National Research Council (NRC) **Early Childhood Mathematics Goals by Integrating** Within and Across Number and Geometry Goals

A program of activities and materials that implement the goals of the NRC Early Childhood Mathematics Report is described. The approach integrates number and geometry concepts so that students develop (a) geometric concepts, spatial visualization, and relations; (b) number concepts, numerical relations, and operations; and (c) mathematical language.

Karen Fuson, Self-employed, Fallbrook, CA Lynn Kuske, Self-employed, Bellevue, WA

Session 111 Intermediate (3-5) Strand 3 **Marriott Downtown: Marriott Ballroom 8-9 Transforming Mathematics Classrooms: Aiding the Transition to Differentiated Instruction**

Whether your goal is strengthening Tier I instruction for your Response to Intervention (RtI) success, or simply meeting the needs of struggling learners, this session identifies three key components to a differentiated classroom and offers a roadmap for transforming mathematics teaching. Explore ways to help teachers understand, embrace, and apply critical differentiation concepts.

Susan O'Connell, Quality Teacher Development, Ellicott City, MD

Session 112 Intermediate (3–5) Strand 2 JW Marriott: 204-205

Supporting Change Through a Coaching Model

As districts make changes to their mathematics curricula, professional development is vital. A coaching model can provide teachers with the individual and small group support needed to sustain change. Engage in a discussion of the lessons learned from a coach and elementary teachers experiencing this model for the first time.

Stephanie Martin, University of Rochester, Rochester, NY

Session 113 Middle (6–8) Strand 1 **Marriott Downtown: Marriott Ballroom 7** The Impact of Teacher Professional Development on **Student Achievement**

Does inquiry-based instruction improve student achievement? This session will investigate the relationships among professional development, teacher instructional practice, and student achievement using classroom observations and state test data. Results show that students in settings with a high level of implementation of inquiry-based instruction show significantly more growth in test scores.

Patty Lofgren, Mathematics Education Collaborative, Tigard, OR

John Mayer, University of Alabama at Birmingham, Birmingham, AL

Bernadette Mullins, Birmingham-Southern College, Birmingham, AL

Session 114: Math Solutions Sponsor Showcase

Intermediate 3-5, General Marriott Downtown: Santa Fe Let's Talk About Mathematics: Key Discussion **Topics and Problems**

Suzanne Chapin, Boston University, Boston, MA Using classroom discussions effectively can be challenging. How do you facilitate a discussion so that it leads to student insight and discovery? This session presents problems and questions that help students develop deep understanding. Complimentary resources will be given to first 50 attendees.

Session 115: Didax Education Technology Showcase

Primary PK-2

Marriott Downtown: Lincoln

Improve Mathematics Instruction with Kathy **Richardson's Formative Assessment**

Kathy Richardson, Math Perspectives Teacher Development Center, Bellingham, WA

Learn more about the power of early assessment and how it can impact instruction to improve student learning. Participants will get hands-on experience using AMC Web, the web-based version of Richardson's Assessing Math Concepts. Learn how to use assessment results to provide targeted instruction.

Monday 9:30-11:30 (Double)

Session 116	General
Strand 4	JW Marriott: 201-202
Danaly The Mosting of t	he Minder The Euture of STEM

Panel: The Meeting of the Minds: The Future of STEM Education

Instead of thinking about where science, technology, engineering, and mathematics are today, join us for a discussion of what the future holds.

Karen Cator, U.S. Department of Education Office of Educational Technology, Washington, DC

Larry Gilliam, Lockheed Martin, Colorado Springs, CO

Thomas Keller, National Academy of Sciences, Board on Science Education, Washington, DC

Diana Thomas, Montclair State University, Upper Montclair, NJ

Moderator: Suzanne Mitchell, NCSM President-Elect

Session 117Intermediate (3–5)Strand 1Marriott Downtown: Marriott Ballroom 2-3What Mathematics Instruction Should Look,
Sound, and Feel Like in the 21st Century: Helping
Administrators Make Sense of It All

It can be challenging to discern if elementary teachers are providing strong mathematics instruction. Understanding elements of such is key to improving student learning. Participants will leave with tools to frame classroom observations and determine if what is being seen, heard, and felt will deliver the goods for the 21st Century.

Christine Moynihan, Independent Educational Consultant, Holliston, MA

Session 118Intermediate (3–5)Strand 2Marriott Downtown: Marriott Ballroom 4Learning from Analysis of Student Learning

This session shares an experience that provided educators with an opportunity to observe student learning. The educators observed one student, reflecting on that student's learning and also on their own learning, as well as the mathematical goal of the lesson. Student work and videos will be featured.

Andrea Miller, Allegheny Intermediate Unit, Homestead, PA Sam Shaneyfelt, Math & Science Collaborative of SWPA/ Allegheny Intermediate Unit, Homestead, PA Session 119 Strand 1 Middle (6–8) JW Marriott: 104

Facilitating the Use of Formative Assessment when Teaching Fractions: A Case of Research to Practice— Vermont Mathematics Partnership's (VMP) Ongoing Assessment Project (OGAP)

The Vermont Mathematics Partnership Ongoing Assessment Project (OGAP) is a formative assessment system based on mathematics education research concerning students' development of specific mathematics concepts. Participants will engage in activities focused on understanding of fraction concepts and the related mathematics education research that illustrate how OGAP has brought research to practice.

Marjorie Petit, Marge Petit Consulting (MPC), North Fayston, VT

Robert Laird, University of Vermont, Burlington, VT

Session 120 Strand 3 How to Roach the Upreachable in Algebra 1

How to Reach the Unreachable in Algebra I

What do you do with students who are in Algebra I but are not ready? Learn about a program that uses rich mathematical tasks and daily formative assessment to support these students. We will connect pedagogical and instructional strategies with classroom management to help students develop algebraic thinking and understanding.

Edward Nolan, Montgomery County Public Schools, Rockville, MD

Please turn cell phones off or put on vibrate while in sessions.
Student Recognition Certificates are available at the Registration Desk.
Nominate a leader in mathematics education for the Ross Taylor/Glenn Gilbert National Leadership Award. See details on page 82.

Monday 10:45-11:45

Session 121: Major Session

General

Marriott Downtown: Marriott Ballroom 5

Geometric Reasoning and Problem Solving: Keys to Success for English Language Learners

Mark Driscoll, Education Development Center, Inc. (EDC), Newton, MA

Presider: Timothy Kanold, NCSM Past President Middle grades mathematics teachers often lack ideas and strategies for engaging English Language Learners (ELLs) in classroom mathematical reasoning and production. Based on recent research and development, this presentation makes the case that regular problem solving opportunities—particularly in geometry—combined with strategies for ensuring access for ELLs, can lead to improved ELL success in mathematics. A critical component is the commitment of mathematics teachers to attend consistently to the development of academic language through real mathematical work on the part of ELLs.



Mark Driscoll has directed a range of teacher enhancement, leadership, and materials development projects at EDC. These include the MathPARTNERS tutoring materials, the Fostering Algebraic Thinking book and toolkit and the Fostering Geometric Thinking book and toolkit. He co-directs Fostering Mathematics

Success of English Language Learners, an NSF-funded research project. Driscoll received his PhD in mathematics (differential geometry) from Washington University in St. Louis and taught mathematics at Logos School, an alternative high school in inner-city St. Louis. He has been co-chair of the NCTM Task Force on Reaching All Students with Mathematics and a member of the writing team for NCTM's Assessment Standards for School Mathematics. From 2003-2007 Driscoll served as editor of the NCSM Journal of Mathematics Education Leadership. In 2010 he served on the writing team for the What Works Clearinghouse Practice Guide on mathematical problem solving. In April 2010 Driscoll received the NCSM Ross Taylor/Glenn Gilbert National Leadership Award.

Session 122 Strand 2

General

Strand 2 Marriott Downtown: Marriott Ballroom 6 Moving Beyond Typical Professional Development That Doesn't Work and Toward Effective Teacher Development (ETD) That Can Make a Real Difference

This session will begin with what we know and what research now confirms: Typical professional development has very little impact on teacher knowledge, teacher behavior, or student achievement. We'll look at why and use this as the basis for an example-laden exploration of the elements of Effective Teacher Development.

Steven Leinwand, American Institutes for Research, NCSM Past President, Washington, DC

Session 123 Strand 3

General JW Marriott: 204-205

Using Number Talks to Build Mental Mathematics and Computation Strategies

What are number talks and how do they help students build efficient, accurate, and flexible computation and mental mathematics strategies? Participants will engage in number talks and analyze classroom video clips of K–5 students. Participants will learn how to implement number talks that foster student reasoning and understanding of number.

Sherry Parrish, Mountain Brook Schools, Birmingham, AL

Session 124GeneralStrand 2Marriott Downtown: Marriott Ballroom 10Lessons Learned from Lesson Study: One School'sExperience in Strengthening Teachers' CollaborativeLearning and Instructional Leadership

Professional development can support teachers' changing beliefs and practices about how to reach all students. This workshop shares documentary videotapes that describe and illustrate the evolutions that resulted from five teachers' participation in a lesson study project supported by the U.S. Department of Education and Mills College.

Anne Nesbitt, Westport Board of Education, Westport, CT **Nancy Kovacic**, Westport Board of Education, Westport, CT

Session 125

General

Strand 2 Marriott Downtown: Austin/Boston A Framework of Understanding the Mediating Role of District Leaders as They Support Teachers During the Teacher/Curricular Interaction

Using data from observations and interviews with two teachers and a district mathematics leader, we will share the impact of the district leader's influence on the teachers' curricular interactions as she supported them during the implementation of standards-based curriculum material, in order to achieve a productive end.

Mary Gichobi, Iowa State University, Ames, IA Comfort Akwaji-Anderson, Iowa State University, Ames, IA

Session 126Intermediate (3–5)Strand 3JW Marriott: 101-102Common Core: Connecting the Standards for

Mathematical Practice to the Standards for Content— Number and Operations in Base Ten

Students need opportunities to explore mathematical ideas, with guidance that helps them use the structure and properties of our number system to build their number sense and computational facility. This session examines how to explicitly structure and facilitate those opportunities and connect standards for mathematical practice to standards for content.

Carolyn Felux, Math Solutions, Sausalito, CA

Monday 10:45–11:45 (continued)

Session 127	Intermediate (3–5)
Strand 3	Marriott Downtown: Marriott Ballroom 8-9

The Common Core State Standards: Examining the Standards for Mathematical Practice in Grades 3–5 and Their Impact on Effective Implementation of the Grades 3–5 Content Standards

The Standards for Mathematical Practice describe ways in which students should engage with mathematics as they are learning mathematical content. What does this look like in the elementary classroom? Examples, for coaches, elementary specialists, and leaders to help classroom teachers use and assess practice embedded with content, will be shared.

Linda Gojak, John Carroll University, NCSM Past President, University Heights, OH

Session 128

Strand 3

Secondary (9–12) JW Marriott: 203

Dynamic Geometric Pathways to Functions Promote Conceptual Understanding of the Variation of Variables and the Behavior of Functions

Geometric functions in Sketchpad 5 allow students to drag an input point that determines an output point via transformation or construction. Students' concrete experiences dragging the independent variable and observing the behavior of the function are particularly compelling, and open a window on domain, range, composition, and inverses. Classroom activities provided.

Scott Steketee, Key Curriculum Press, Emeryville, CA

Session 129 Secondary (9–12) Strand 3 Marriott Downtown: Marriott Ballroom 7 Exploring the Potential of Sorting Tasks in Developing Teachers' Mathematical Knowledge for Teaching Functions Across Representations

In this session, participants will engage in a sorting task designed to develop teachers' mathematical knowledge for

teaching the concept of function and analyze sorts created by teachers. Participants will also discuss how the task might be adapted to support the needs of the diverse teacher audiences with whom they work.

LuAnn Malik, University of Pittsburgh, Pittsburgh, PA Amy Hillen, Kennesaw State University, Kennesaw, GA

Session 130: Borenson and Associates, Inc. Sponsor Showcase

Grades 3–9

Marriott Downtown: Santa Fe

With Hands-On Equations® You Can Provide Your Students in Grades 3–9 with a Sound Introduction to Algebra!

Linda Bailey, Borenson and Associates, Inc., Allentown, PA Attend this session and experience this powerful instructional approach developed by Dr. Henry Borenson. By making algebraic concepts visual and kinesthetic, even young students can experience success with algebraic linear equations and word problems! Receive a free demonstration kit!

Session 131: Math Solutions Technology Showcase

General Marriott Downtown: Lincoln Face-to-Face vs. Online Professional Development? Do Both! The Power of the Blended Model

Paula Hidalgo, Math Solutions, Sausalito, CA Carolyn Felux, Math Solutions, Sausalito, CA Marji Freeman, Math Solutions, Sausalito, CA

Blended programs can yield higher performance due to the more frequent interactions between educators and coaches. These models combine face-to-face sessions with online follow-ups giving teachers opportunities to get timely, expert, and peer advice on instructional issues and topics.

Monday Box Lunch

Session 132 Sponsored by Didax Education and Math Teachers Press, Inc. JW Marriott: Griffin Hall

11:30 AM-12:45 PM (ticket required) • 12:45 PM-1:00 PM (waiting line, first come-first served)

The name Didax comes from the Greek, didaktikos, meaning "to teach." For over thirty years, Didax has specialized in helping educators to address individual learning styles and diverse student needs. Tested by teachers, parents, and children, each of their products is designed to meet a district educational need.





In 2010, Math Teachers Press celebrated 30 years since they published the 1980 edition of Moving with Math by Topic, a program developed to provide targeted, topic-specific intervention to students in grades 1 through 8. Despite all of the changes across the landscape of mathematics education, the mission at Math Teachers Press remains unchanged: to help

all students succeed in mathematics—especially those who struggle most—while making the job of the teacher easier with handy organizational tools, user-friendly lesson plans, and web-based assessment and reporting to monitor student progress and provide accountability.

Visit Didax at booth 421 in the sponsor display area and at www.didax.com. Visit Math Teachers Press at booth 321 in the sponsor display area and at www.movingwithmath.com.

Monday 12:15-1:15

Session 133: Major Session

General

Marriott Downtown: Marriott Ballroom 5

Understanding the Challenges Teachers Face in Using a Transformational Approach to **Mathematical Similarity**

Nanette Seago, WestEd, Riverside, CA Presider: Mari Muri, NCSM Regional Director

This session will explore the opportunity that a transformational approach offers to the teaching and learning of similarity in the middle grades. Using a video case example, we will analyze a video clip and consider specific issues around the work of teaching similarity such as interpreting and representing students' mathematical use of dilation and unpacking students' use of definitions in



solving problems.

Nanette Seago currently serves as principal investigator (PI) for DRK-12 NSF Learning and Teaching Geometry: Videocases for Mathematics Professional Development project. Additionally, she serves as co-PI for an Institute of Education Sciences (IES) project: Linear Functions for Teaching: An Efficacy Study of Learning and

Teaching Linear Functions. From 2003-2009 she served as co-PI for two other NSF projects, a ROLE project: Turning to the Evidence: What Teachers Learn by Using Classroom Records and Artifacts in Mathematics Instruction and a teacher enhancement project: Developing Facilitators of Practice-Based Professional Development. From 1998-2004 Seago served as co-PI for the NSF Video Cases for Mathematics Professional Development Project. In 2002 she collaborated with LessonLab in the development of the Third International Mathematics and Science Study-Repeat (TIMSS-R) public release videos and the design of an online course sponsored by Intel Corporation entitled: TIMSS Video Studies: Explorations of Algebra Teaching. Seago is lead author of Learning and Teaching Linear Functions: Video Cases for Mathematics Professional Development, 6-10.

Session 134 General Strand 3 JW Marriott: 204-205 Visible Thinking: A Pathway to Classroom Equity

Visible Thinking is a practical approach that can be used by teachers to meet diverse needs of learners. Mathematics classrooms engaged in Visible Thinking activities strongly support ongoing formative assessments and early response to intervention. Leaders will be engaged in Visible Thinking activities that promote equity in mathematics classrooms. Don Balka, Saint Mary's College, Retired, Notre Dame, IN Ted Hull. LCM: Leadership. Coaching. and Mathematics. NCSM Regional Director, Pflugerville, TX Ruth Harbin Miles, LCM: Leadership, Coaching, and Mathematics, Madison, VA

Session 135 Strand 2

General **Marriott Downtown: Marriott Ballroom 10 Tapping Teachers' Strengths to Develop the Mathematical Strengths in Each Child**

High-level cognitive tasks, student-centered discussions, concept mastery, and effective group work - all mathematics classrooms need these elements if all students are to succeed, vet some teachers struggle to implement them. Learn how to identify teachers' strengths and then differentiate your coaching moves to motivate all teachers to embrace classroom change.

Jane Kise, Differentiated Coaching Associates, LLC, Edina, MN

Session 136 General Strand 3 JW Marriott: 203 Quantiles—A Powerful New Way to Track Student Success

Quantiles are not just another number. Various assessments will provide you with a Quantile measure. Do you know how these measures will help you meet your Responses to Intervention (RtI) goals? Let's look at some issues and share highlights of how several schools have used their Quantile scores to help teachers differentiate instruction.

Jan Scott, Scholastic Inc., Watertown, MA

Session 137 Intermediate (3-5) Strand 1 Marriott Downtown: Marriott Ballroom 8-9 Assessment of and FOR Learning: How to Use **Summative Assessments to Inform Instruction**

Our classrooms are currently inundated with formal and informal data generating and data analysis. This workshop will explore both how to use data and how to design multiplechoice items in ways that maximize what we can learn about students, with the goal of improving learning and instruction.

Kathleen Pitvorec, University of Illinois, Chicago, IL Jan Haake, Benedictine University, Lisle, IL

Session 138 Intermediate (3–5) Strand 3 Marriott Downtown: Austin/Boston **Helping Teachers When Students Say That Their Teachers Talk and Write in a Secret Mathematics Code** and They Don't Get It!

As standards emphasize the need for intermediate students to begin building algebraic concepts, the leader needs to find ways to incorporate algebra into the curriculum and help teachers enable students to learn/understand "secret code" like $2b^2$, *lwh*, and x + 2y by using concrete manipulatives to build foundations for later abstract algebraic concepts.

Robert Jesberg, Private Consultant, Chalfont, PA Janie Zimmer, Research-Based Education, Reading, PA

Please turn cell phones off or put on vibrate while in sessions.

Monday 12:15–1:15 (continued)

Session 139 Middle (6–8) Strand 3 Marriott Downtown: Marriott Ballroom 6 **Designing and Teaching Mathematics Lessons to the** iGeneration

This session will examine how to design and teach meaningful and grade-appropriate mathematics to the Internet Generation (iGeneration). Participants will be provided with innovative strategies using technology that can lead to better motivation and understanding of mathematics (especially rational numbers) in grades 3-8.

Eric Milou, Rowan University, Glassboro, NJ

Middle (6-8) Session 140 Strand 3 **Marriott Downtown: Marriott Ballroom 1 Exploring Mathematics in the Middle Grades: Progress Being Made!**

What can be done to improve middle grades mathematics? Learn about an engaging mathematics curriculum at the middle grades! Learn from a grant project that has been working to improve performance on the EXPLORE assessment and prepare students for success in high school and beyond.

Janet Tassell, Western Kentucky University, Bowling Green, KY

Linda Sheffield, Northern Kentucky University - Emerita, Highland Heights, KY

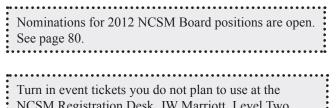
Session 141

Middle (6-8)

Strand 2 Marriott Downtown: Marriott Ballroom 7 **Developing Mathematics Professional Development Sessions: Planning Conversations and Instructional Decisions That Lead to Improved Mathematical** Knowledge for Teaching (MKT) in District Leaders

How do you develop Mathematical Knowledge for Teaching (MKT) in mathematics leaders? Engage in an algebraic content session used with district mathematics leaders to deepen their understanding of Proportional Reasoning. Learn about the planning discussions and instructional decisions that developed the mathematics in this big idea.

Beth Schefelker, Milwaukee Public Schools, Milwaukee, WI Melissa Hedges, Milwaukee Public Schools, Milwaukee, WI Connie Laughlin, University of Wisconsin Milwaukee, Milwaukee, WI



NCSM Registration	Desk, JW Marriott, l	Level Two.

Session 142 Strand 1

Secondary (9–12) JW Marriott: 101-102

Mathematical Habits of Mind for Teaching: Assessing Mathematical Knowledge for Teaching at the Secondary Level

How can "thinking like a mathematician" help teachers use mathematics effectively in teaching? We will introduce mathematical habits of mind for teaching as an organizing framework for secondary teachers' mathematical knowledge, share items to assess these habits, along with illustrative classroom examples, and discuss professional development approaches that support this work.

Ryota Matsuura, St. Olaf College Mathematics Department, Northfield, MN

Al Cuoco, Education Development Center, Inc., Newton, MA Glenn Stevens, Boston University, Boston, MA

Sarah Sword, Education Development Center, Inc., Newton, MA

Session 143: It's About Time Publishing Sponsor Showcase

Secondary 9–12

Marriott Downtown: Santa Fe Incorporating Technology with a Standards-**Based Program Produces Results**

James Kearns, It's About Time Publishing, Armonk, NY This workshop will explore algebra and geometry standards-based activities, that when integrated with appropriate technology, help students better visualize these topics. With a strong professional development program, this approach helped the presenter's school earn state and national awards.

Session 144: Carnegie Learning, Inc. Technology Showcase

Middle 6–8

Marriott Downtown: Lincoln

Launch of the Carnegie Learning[®] Mathematics Series Featuring Personalized Middle School **Mathematics Instruction**

Steve Ritter, Carnegie Learning, Inc., Pittsburgh, PA Experience the new Carnegie Learning® Mathematics Series, whose research-based instruction is framed within real-world contexts using humor and interesting topics. Learn how our software personalizes mathematics instruction to better engage and motivate students, and helps them master mathematics concepts and skills.

Submit an article for the NCSM Newsletter or Journal. See pages 83 and 84 for details.

Monday 12:30-2:30 (Double)

Session 145		General
Strand 2		JW Marriott: 103

Tracking Student Thinking Toward Student Success

In previous NCSM presentations, we introduced participants to Gillan's Problems Without Figures. In this session, we will examine student responses to additional problems, and report on results of a study comparing student performance across schools before and after practice with these types of problems, to determine impact on student thinking.

Patsy Wang-Iverson, Gabriella and Paul Rosenbaum Foundation, Bryn Mawr, PA

Richard Askey, University of Wisconsin, Madison, WI

Marian Palumbo, Bernards Township Public School, Basking Ridge, NJ

Dustin Acres, Kern High School District, Bakersfield, CA

Session 14	б				Intermediate (3–5)			
Strand 2						J	W Marrio	ott: 104
		-	 -		_			

Mathematics Coaches Leading Professional Learning Communities (PLCs)—Key Ingredients to Developing Mathematical Understanding

The Thinking Through a Lesson Protocol, developed by Dr. Margaret Smith and others at the University of Pittsburgh, engages educators to think deeply about lessons and how students learn mathematics. By anticipating, monitoring, selecting, sequencing, and connecting student work, teachers develop and deepen students' understanding of key mathematical ideas.

Michael Fierle, Allegheny Intermediate Unit, Homestead, PA **Corinne Murawski**, SW PA Math & Science Collaborative, Pittsburgh, PA

Session 147 Strand 3

Intermediate (3–5) Marriott Downtown: Marriott Ballroom 4

Computational Fluency in Multiplication: How Many Strategies Are There?

Using video and student work, participants will examine how computational fluency in multiplication develops and consider these questions: What contexts and representations support an understanding of multiplication? What is the importance of studying and comparing different strategies and algorithms? Connections will also be made to professional development for teachers.

Keith Cochran, TERC, Cambridge, MA Karen Economopoulos, TERC, Cambridge, MA

Session 148 Middle (6–8) Strand 3 JW Marriott: 201-202 Differentiating Problem Solving: Using Open and Parallel Tasks (Grades 3–8)

Collaborate with other educators to create problems that target big mathematical ideas by using Marion Small's strategy of developing open and parallel tasks. Use this approach as a powerful way to differentiate assessment for all students. In addition, use the process to design pretest tasks as formative assessments for intervention.

Cathy Brown, Teachers Inspiring Problem Solvers, Redmond, OR

Winnie Miller, Teachers Inspiring Problem Solvers, Redmond, OR

Mastering the Common Core: We have the Practices.

Make sense, persevere, generalize, apply, reason and critique, build mathematical models, use strategies, look for patterns and structure—these are the practices that the Common Core State Standards and leaders are saying "should be as much a goal of the mathematics curriculum as the learning of specific content." Come to the Math Forum, where the community has been **developing mathematical communication and problem solving skills** every day since 1992. With over 3.5 million visits each month, we're the world's leading online math education community. To learn more, call 800-756-7823 or visit mathforum.org. **Visit us in the Sponsor Display Area for free sample activities!**

"The Math Forum has given me opportunities to interact with colleagues that have challenged and extended my thinking about teaching and learning mathematics. The staff are remarkable thinkers and supporters to teacher and student success... The people I met at Math Forum institutes are still good friends and colleagues, well over 10 years later. I could not imagine a more important website community for math teachers than the Math Forum." — Evan Glazer, Ph.D., Principal, Thomas Jefferson High School for Science & Technology, Fairfax, Virginia (Ranked #1 High School in U.S. News and World Report)



Monday 1:30-2:30

Session 149: Major Session

General

Marriott Downtown: Marriott Ballroom 5 Implementing the More Challenging Aspects of **Common Core State Standards**

Diane Briars, NCSM President, Pittsburgh, PA

Presider: Diana Kendrick, NCSM Regional Director The Common Core State Standards (CCSS) are not "business as usual." Although some aspects of CCSS are familiar, others, such as some of the mathematical practices and topic learning progressions, are difficult to interpret and/or differ significantly from current practice. Learn what you can do now to help teachers and administrators understand and implement these newer, more challenging, aspects of CCSS, and how to use new NCSM tools to do so.



Diane J. Briars. NCSM President, is a mathematics education consultant and co-director of the Algebra Intensification Project, a joint venture of the Learning Science Research Institute, University of Illinois at Chicago, the Dana Center, University of Texas at Austin, and education technology company Agile Mind, Inc.

Previously, she was mathematics director for the Pittsburgh Public Schools. Under her leadership, the Pittsburgh Schools made significant progress in increasing student achievement through standards-based curricula, instruction, and assessment. She has served as a member of many national committees, including the National Commission on Mathematics and Science Teaching for the 21st Century, headed by Senator John Glenn, and in leadership roles for various national organizations, including the National Council of Teachers of Mathematics, the College Board, and the National Science Foundation. Briars earned a PhD in mathematics education and an MS and BS in mathematics from Northwestern University and did post-doctoral study in the Psychology Department of Carnegie-Mellon University. She began her career as a secondary mathematics teacher.

Session 150 Strand 2

General

Marriott Downtown: Marriott Ballroom 1 A Panel of NCSM Past Presidents Presents Potential **Solutions to Perplexing Problems: Leading with No** Money; Educating Unsupportive Bosses; Motivating **Reluctant Teachers**

Be enlightened by the epic eruption of energetic exchange on problems which confront most mathematics leaders. The three topics listed will be examined by the exceptional, eager, ever-knowledgeable, and empathic panel of esteemed past presidents. Emerge with earnest practical solutions to empower leaders to enhance mathematics education.

Larry Bradsby, Consultant, NCSM Past President, Lakewood, CO

Carole Greenes, Arizona State University, NCSM Past President, Tempe, AZ

Linda Gojak, John Carroll University, NCSM Past President, University Heights, OH

Steven Leinwand, American Institutes for Research, NCSM Past President, Washington, DC

Session 151 General Strand 2 Marriott Downtown: Austin/Boston Thriving, Not Just Surviving: Nurturing Mathematical Leadership in Elementary Classroom Teachers

Often, classroom teachers feel they must leave the classroom in order to grow professionally. The big losers are their students. This session will address ways in which mathematics leaders can energize teachers who wish to enhance their professional status, but who choose to remain in the classroom.

Dinah Chancellor, D R Chancellor, Inc., Southlake, TX Janie Schielack, Texas A&M University, College Station, TX

Session 152 General Strand 3 JW Marriott: 203 Lessons from Singapore: Can Singapore's Visual Models and Problem Solving Approach Help Teachers Move Students from Arithmetic to Algebra?

As Singapore's curriculum becomes more popular in the United States, we are learning it is much more than just strategies. This workshop will explore how representation of quantitative relationships and complex problem solving can help American students succeed as they move from arithmetic to algebra.

Andy Clark, Portland Public Schools (Retired), Portland, OR

Session 153 Strand 3

Intermediate (3-5) JW Marriott: 204-205

Implementing New Curriculum Well: What Does It Take?

What are the key dimensions of building a coherent and successful implementation? In this session, we will report on an NSF-funded study investigating the implementation of elementary mathematics instructional materials, with particular attention to the district activities and supports that are intended to strengthen the use of materials and implementation.

Julie Zeringue, Education Development Center, Newton, MA Katherine Schwinden, Education Development Center Inc, Newton, MA

Monday 1:30–2:30 (continued)

Session 154			Intermediate (3–5)
Strand 1			JW Marriott: 101-102
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Learning Together in the Classroom: Principals, Teachers, and Mathematics Coaches Listening to **Student Thinking**

How can principals, teachers, and mathematics coaches support student engagement by learning together in the classroom? In this session, we will share a professional learning structure where teachers, principals, and mathematics coaches spend time together in the classroom using a process to uncover student thinking and identify and clarify differentiation strategies.

Janice Bradley, New Mexico State University, Las Cruces, NM

Jan Cory, Pampa Independent School District, Pampa, TX Courtney Blackmon, Pampa Independent School District, Pampa, TX

Session 155 Middle (6–8) Strand 3 **Marriott Downtown: Marriott Ballroom 8-9 Ordering for Success: Integrating Literacy Strategies** and Graphic Organizers to Teach Mathematics Content

Literacy strategies and graphic organizers are not limited to teaching mathematics vocabulary. Student work samples show they are important tools for teaching mathematics content to all students, and especially benefit English Language Learners. Experience graphic organizers, stories, and sentence frames as tools to teach order of operations and related content.

Sue McMillen, Buffalo State College, Buffalo, NY Ellen Friedland, Buffalo State College, Buffalo, NY

Session 156 Middle (6-8) Strand 3 **Marriott Downtown: Marriott Ballroom 7** Readiness for Algebra I in Grade 8: What Does It Take to Provide Greater Access to Algebra in Our Urban Districts

This session addresses Boston's Grade 8 Algebra I Initiative, including how schools equitably identify students for this offering, what student supports we put in place, and how we support teacher practice. We will also discuss the importance of laving strong foundations for algebra in grades 4–7.

Linda Davenport, Senior Program Director of Elementary Mathematics, Boston Public Schools, Boston, MA Sherry Sajdak, Boston Public Schools, Boston, MA Connie Henry, Boston Public Schools, Boston, MA

Session 157 Strand 1

Middle (6–8)

Marriott Downtown: Marriott Ballroom 10 Why Is Learning About Formative Assessment in a **Networked Classroom Contagious?**

Participants will learn how two teams of teachers, who participated in a research project involving formative assessment in a networked classroom, assumed leadership roles and expanded the ideas to all teachers in their schools. The professional development the teachers helped design for their individual schools will be discussed.

Judith Olson, University of Hawaii at Manoa, Honolulu, HI Melfried Olson, University of Hawaii at Manoa, Honolulu, HI

Session 158 Secondary (9–12) Strand 3 **Marriott Downtown: Marriott Ballroom 6 High School Mathematics in a Common Core Era: Revolution, Regression, or Life as Usual?**

The Common Core State Standards (CCSS) call for redefining high school courses. What about Algebra I/II and Geometry vs. Integrated Mathematics? What 12th grade courses can help all students? Can we provide a coherent mathematics curriculum that implements CCSS, embraces Principles and Standards for School Mathematics, and focuses on reasoning/sense making?

Cathy Seeley, University of Texas-Charles A. Dana Center, Austin, TX

Session 159: ETA/Cuisenaire Sponsor Showcase

Marriott Downtown: Santa Fe

PK-8 Virtual Manipulatives? Interactive Whiteboards? What Does Hands-On Really Mean Today?

Sara Moore, ETA/Cuisenaire, Vernon Hills, IL Interactive whiteboards have brought virtual manipulatives into our classrooms. Learn to use these new tools in combination with traditional concrete manipulatives. See the technology in action and learn strategies for incorporating it into your own classroom, even before the hardware arrives.

Session 160: ExploreLearning Technology Showcase

Marriott Downtown: Lincoln

Using Online Simulations to Improve Conceptual Understanding in Mathematics

Thom O'Brien, ExploreLearning, Charlottesville, VA Designed for grades 3–12, Gizmos help you take advantage of research-proven instructional strategies that help students develop conceptual understanding. With Gizmos, you can enhance instruction with interactive visualizations of mathematics concepts. Attendees will receive a free 45-day trial of Gizmos.

Grades 3–12

Monday 2:45-3:45

Session 161: Major Session

General

Marriott Downtown: Marriott Ballroom 5

Light Masters in Mathematics Leadership: Helping Students Unlock the Doors

Carol Malloy, University of North Carolina, Chapel Hill, NC

Presider: Kay Gilliland, NCSM Past President

Motivation for learning often comes from a light master. Kathleen Parker, a 2010 Pulitzer Prize winner, calls her high school English teacher "the light master"; and holds this teacher with distinction in her life because he changed her life with a flicker of light. There are many students who never experience the turning on of lights in mathematics. A middle school student wrote, "I don't like anything that deals with math." It is hard to tell why this happens, but we as leaders and teachers are continually learning by looking at what works. This presentation will present the HOPE that emerges in the process of "Turning on the Lights." In this session, I use recent research on the relationships between middle school mathematics teachers' instructional strategies, student-identified classroom practices, and students' success in gaining conceptual understanding of mathematics.



Carol E. Malloy is very proud to have spent 20 years as a teacher of mathematics in several public school districts across the United States. Carol recently retired from being an associate professor in mathematics education in the School of Education at the University of North Carolina at Chapel Hill, where she taught courses in

secondary mathematics methods, geometry for middle and elementary preservice teaching students, and the professional seminar for PhD students.

Carol has been active in the Benjamin Banneker Association (BBA), NCTM, NCSM, and the Association of Mathematics Teacher Educators (AMTE). She was president of BBA (1996-98), served on the NCTM Board of Directors (1998-2002), and was a member of the NCTM Standards 2000 writing team.

Since 1995, Carol has been an author of Glencoe/McGraw Hill mathematics textbooks. Presently she is a lead author for the McGraw-Hill K-12 Mathematics Program. She has authored numerous national publications and books and has made major presentations at academic meetings.

Session 162 General Strand 2 Marriott Downtown: Marriott Ballroom 7 Productive Teacher Talk—How Does a Mathematics Coach Get It Generated?

Mathematics coaches and other instructional leaders will acquire the knowledge of how Southwestern Pennsylvania mathematics coaches structure sessions to engage educators in "high-level talk," talk specifically geared to improving the mathematics learning of all students. Activities that have been incorporated over a 5–6 month period will be experienced.

Sam Shaneyfelt, SWPA Math & Science Collaborative/ Allegheny Intermediate Unit, Homestead, PA

Session 163 General Strand 1 JW Marriott: 204-205 Translating the Common Core Effectively into Practice

The development of next generation items and assessments connected to the Common Core State Standards are touted as the most recent solution for connecting mathematics assessment, instruction, and feedback. This session discusses efficient rollout of new curriculum and assessments and the pros and cons of these plans, with some possible alternative solutions.

Pamela Paek, National Center for the Improvement of Educational Assessment, Austin, TX

Session 164 Intermediate (3–5) Strand 2 JW Marriott: 203

Research in Mathematics Instructional Coaching

This session describes initial results from a research study investigating knowledge that contributes to successful coaching in two domains: coaching knowledge and mathematics content knowledge. The project is examining the influence of these knowledge domains by investigating correlations between assessments of coach and teacher knowledge and practice in each domain.

David Yopp, Montana State University, Bozeman, MT **Elizabeth Burroughs**, Montana State University, Bozeman, MT

John Sutton, RMC Research Corporation, Denver, CO

Session 165 Strand 3 Intermediate (3–5) JW Marriott: 101-102

Addressing Equity by Strengthening the Mathematics Vocabulary of All Students Through the Use of High-Interest Manipulatives and Marzano's Six-Step Process

Consistent use of correct mathematical vocabulary is frequently a stumbling block for students' being able to achieve in mathematics. Leaders need to address this in curriculum and in professional development. Come and investigate how mathematics manipulatives, along with Marzano's sixstep strategy, may be used to teach and reinforce academic mathematical vocabulary.

Janie Zimmer, Research-Based Education, Reading, PA Robert Jesberg, Private Consultant, Chalfont, PA

Monday 2:45–3:45 (continued)

Session 166

Middle (6-8)

Strand 3 Marriott Downtown: Marriott Ballroom 8-9 **Differentiating Computational Problem Solving** Instruction for Special Education Students and Struggling Learners Through the Use of Model (Bar) Drawing

This powerful tool helps students translate words to visual models, thus they better understand word problems and the actions needed to solve them. Participants will see how the steps of model drawing provide a supportive framework for students while still allowing for differentiation of levels of thinking, mathematics skills, and solution approaches.

Patty Smith, Educational Resources Group, Inc., Charleston, SC

Session 167 Secondary (9–12) Strand 4 **Marriott Downtown: Marriott Ballroom 10** A Discussion on Essential Technology Tools and **Useful Tips for Mathematics Education Leaders**

The Common Core State Standards skirted the issues of technology in the mathematics classroom. This session initiates a discussion of the essential technology for teaching mathematics, introduces some online tools supporting collaboration, and outlines some useful digital tools for mathematics leaders. This presentation describes some developments that may significantly impact mathematics education.

Richard Seitz, NCSM Regional Director, Helena, MT

Session 168 Secondary (9–12) Strand 3 **Marriott Downtown: Marriott Ballroom 6** The Ethics of Using Computer Algebra Systems (CAS) and Other Advanced Technologies in High School **Mathematics**

Using CAS and other advanced technologies raises ethical questions in classrooms. Is it equitable (fair) for some students to have CAS while others don't? Is it ethical to prepare students with these technologies if they are not allowed on high-stakes tests? These and other ethical questions will be discussed.

Zalman Usiskin, The University of Chicago, Chicago, IL

Session 169

Strand 1

Student Involvement? Motivation? What Comes First? Using the Principles of Formative Assessment to **Motivate Urban Middle and High School Students**

After reflecting on what we learned from our formative assessment training, we decided to help students reflect on what they know and do not know. Come to hear about the lessons we learned at our urban middle and high schools. We will share the research and tools we use.

Nancy Zarach, Syracuse City School District, Syracuse, NY Melanie Cifonelli, Syracuse City School District, Syracuse, NY Session 170: CORD Communications, Inc. Sponsor Showcase

Secondary (9–12)

Marriott Downtown: Santa Fe

Professional Learning Communities: Building Faculty Cohesion for Teaching Mathematics the Way Students Learn

Sandra Harwell, CORD Communications, Inc., Waco, TX

Claudia Maness, CORD Communications, Inc., Waco, TX Contextual teaching is a proven strategy for meeting the Common Core State Standards. Creating Professional Learning Communities allows teachers time for professional development, evaluation, and support. This session focuses on building teams and equipping them with needed materials for student success.

Session 171: ORIGO Education, Inc. Technology Showcase

PK-8

Marriott Downtown: Lincoln

Facilitating Teachers' Professional Learning Through Online Resources

Rob Nickerson, ORIGO Education, Inc., St. Charles, MO James Burnett, ORIGO Education, Inc., St. Charles, MO Mathedology is a web-based professional learning resource that empowers teachers with professional learning, both when and where they need it—anytime, anywhere! Come and see how Mathedology, and other exciting online resources by ORIGO Education, can be used to inspire and educate teachers.

Monday 3:00–5:00 (Double)

Session 172 Strand 2

General JW Marriott: 104

Tracking a Course with Professional Learning: Coaching to Promote Mathematics Leaders

Why is coaching an emerging professional development strategy? What are characteristics of exemplary coaching initiatives? Examine data regarding the relationship between school-based coaching and student achievement, and lessons learned from six years of action research. Join us to explore coaching as transformative professional learning for mathematics education leaders.

Debra Wallace, AOP-G Regional S²MART Center, Clemson, SC

Secondary (9–12)

Marriott Downtown: Marriott Ballroom 1

Monday 3:00-5:00 (continued)

Session 173	Genera
Strand 3	JW Marriott: 201-202
Breaking the Cycle of Failure:	Middle and High

School Students and Teachers Learning Mathematics Together

Mathematics Education Collaborative's (MEC) groundbreaking work, in which students with long histories of failure learned mathematics for 14 full days alongside their teachers, has led to profound breakthroughs for both teachers and students. Hear students' stories of overcoming fears and failures and teachers' stories of changed beliefs about who can learn mathematics.

Ruth Parker, Mathematics Education Collaborative, Ferndale, WA

Lisa Mesplé, Mathematics Education Collaborative, Ferndale, WA

Session 174 General Strand 3 Marriott Downtown: Marriott Ballroom 2-3 Common Core State Standards Instructional Materials Analysis Tools

Learn about new tools for assessing the potential of instructional materials to support students' attainment of the Common Core State Standards for Mathematics (CCSS) including the Standards for Mathematical Practice. The tools, and supporting professional development materials, will be disseminated by the Council of Chief State School Officers and NCSM.

William Bush, University of Louisville, Louisville, KY Diane Briars, NCSM President, Pittsburgh, PA

Valerie Mills, NCSM Regional Director, Oakland Schools, Waterford, MI

Donna Simpson Leak, Rich Township School District #227, Olympia Fields, IL

Session 175 Primary (PK-2) Strand 1 Marriott Downtown: Marriott Ballroom 4 Inspiring PK-2 Students to Be Problem Solvers

Experience each of the components of quality mathematics problem solving lessons—including pretest tasks designed as formative assessments for Responses to Intervention (RtI). Participate in solving tasks intended to reach a diversity of student abilities. We will focus on questioning, scaffolding student sharing, and extending topics for depth using open and parallel tasks.

Winnie Miller, Teachers Inspiring Problem Solvers, Redmond, OR Virginia Christensen, Teachers Inspiring Problem Solvers, Portland, OR

Session 176		
Strand 2		

Intermediate (3–5) JW Marriott: 103

Analyzing Addition and Subtraction Strategies: Helping Teachers Help Students to Make Connections Across Multiple Representations and to Explain Their Reasoning

This interactive session will be based on print and video cases that will examine the mathematical ideas that underlie common strategies for adding and subtracting multi-digit numbers. Examining different ways students might represent and express their thinking, as well as teacher moves which support such reasoning will also be included.

Virginia Bastable, SummerMath for Teachers, South Hadley, MA Deborah Schifter, Education Development Center, Newton, MA

Monday 4:00-5:00

Session 177: Major Session

General

Marriott Downtown: Marriott Ballroom 5

Orchestrating Productive Mathematical Discussions: Helping Teachers Move Beyond "Showing and Telling"

Margaret Smith, University of Pittsburgh, Pittsburgh, PA

Presider: Susan Birnie, NCSM Regional Director This session will focus on a pedagogical model that

specifies five key practices that teachers can learn in order to use student responses more effectively: (1) anticipating likely student responses prior to the lesson; (2) monitoring students' responses as they engage with the task; (3) selecting particular students to present their mathematical responses; (4) purposefully sequencing the student responses that will be displayed; and (5) helping the class make mathematical connections between different students' responses (Stein, Engle, Smith, & Hughes, 2008; Smith, Hughes, Engle, & Stein, 2009). By making purposeful choices about which responses should be presented, and in what order, teachers can maximize the chances that their mathematical goals for the discussion will be achieved.



Margaret Smith is a professor in the School of Education and a senior scientist at the Learning Research and Development Center, both at the University of Pittsburgh. Over the past decade she has been developing research-based materials for use in the professional development of mathematics teachers and studying what

teachers learn from the professional development in which they engage. She is the author of numerous articles, chapters, and books, including Practice-Based Professional Development for Teachers of Mathematics (2001) and Implementing Standards-Based Mathematics Instruction: A Casebook for Professional Development (2009). She was a member of the Board of Directors of the National Council of Teachers of Mathematics (2006-2009). In 2006 she was selected to receive the Chancellor's Distinguished Teaching Award given annually to honor outstanding faculty at the University of Pittsburgh. In 2009 she received the Excellence in Teaching in Mathematics Teacher Education award from the Association of Mathematics Teacher Educators.

Session 178 General Strand 3 Marriott Downtown: Austin/Boston Everybody is Talking About Rigor, but No One is Talking About Rigor

Educational leaders use the term rigor regularly, but they rarely define it. When it is defined, by administrators or in official documents, the definitions are at times contradictory. This session will explore the various definitions of rigor used in education and the implications of these definitions for mathematics education teachers and leaders.

Sara Moore, ETA/Cuisenaire, Vernon Hills, IL William Bintz, Kent State University, Kent, OH

Monday 4:00-5:00 (continued)

Session 179	General
Strand 3	Marriott Downtown: Marriott Ballroom 6
What's the X? Develo	ping Algebraic Thinking Through
Explorations in Numb	per, Measurement, Geometry, and
Probability	-

Difficulty with algebra often stems from lack of experience with the big ideas of the subject. "What's the X?" identifies the big ideas for exploration before Algebra I, and demonstrates how learning fundamental ideas can grow and at the same time reinforce learning of number, measurement, geometry, and probability.

Carole Greenes, Arizona State University, NCSM Past President, Tempe, AZ

Session 180 General Strand 3 Marriott Downtown: Marriott Ballroom 7 How Do You Know Students Learned What You Just Taught?

Learning Intentions and Success Criteria (LI/SC) are the basis for strong mathematics instruction. Explore how including these seemingly simple concepts can improve both teaching and learning. Learn how teachers use curricular materials to anchor instruction around the important mathematics in the lesson, and share learning outcomes that empower students to succeed.

Bernard Rahming, Milwaukee Public School, Milwaukee, WI Lee Ann Pruske, Milwaukee Public Schools, Milwaukee, WI Rosann Hollinger, Milwaukee Public Schools, Milwaukee, WI

Session 181 Intermediate (3–5) Strand 3 Marriott Downtown: Marriott Ballroom 10 Helping Teachers Establish Environments and Embrace the Importance of Real-Life Problem Solving and the Development of Mathematical Thinking and Reasoning

Presenter will discuss the importance of using engaging, reallife problems; developing effective questioning strategies; and creating effective classroom environments as essential elements for helping teachers develop problem solving and reasoning skills with elementary and middle school students. Student work will be showcased, and participants will engage in reallife problem solving. Handouts provided.

Donna Knoell, Educational Consultant, Shawnee Mission, KS

Session 182 Intermediate (3–5) Strand 2 Marriott Downtown: Marriott Ballroom 1 Analyzing Student Work: A Powerful Professional Learning Experience

How does analyzing student work strengthen teacher content knowledge and promote high-quality mathematics instruction? Explore a professional development model that incorporates a multifaceted approach in developing understanding of key mathematics ideas. Discover strategies to focus coaching sessions on analyzing student misconceptions and exploring alternative instructional practices to deepen mathematical knowledge.

Ann Marie Spinelli, Bristol Public Schools, Bristol, CT Debbie Vitale, Bristol Public Schools, Bristol, CT

Session 183	
Strand 3	

Middle (6–8) JW Marriott: 101-102

Mathematics Leaders Make a Difference in the Accuracy of Mathematics Content Delivered in the Classroom

This interactive session will challenge mathematics leaders to use appropriate mentoring tools to ensure that mathematics teachers deliver accurate mathematics content. Content mis-examples, research, and role-playing will enhance the understanding of leaders who must find ways to correct teachers' mathematics content.

Suzanne Mitchell, Arkansas State University, NCSM President-Elect, State University, AR

Linda Griffith, University of Central Arkansas, Conway, AR

Session 184	Middle (6–8)
Strand 4	JW Marriott: 203
Techno Tools for Conceptual	Understanding

An exciting in-depth look at cutting-edge, technologybased, mathematics applications that develop students' conceptual understanding through game playing and hands-on experimentation with interactive visual tools. The presentation will also discuss implementation strategies, and highlight data that exemplifies what can be achieved with the right tools.

Nigel Nisbet, MIND Research Institute, Santa Ana, CA

Session 185	Middle (6–8)
Strand 1	JW Marriott: 204-205
Mathematics Assessment	Beyond Quizzes and Tests

Engage students in meaningful mathematics assessment investigations, and use mathematics projects linking mathematics to creativity and life applications. Have students be involved in best practices in vocabulary strategies, writing prompts, journaling, reflective thinking, and portfolios. Include the NCTM process standards throughout your mathematics instruction and assessment.

Edna Bazik, National-Louis University, Chicago, IL

Session 186Secondary (9–12)Strand 1Marriott Downtown: Marriott Ballroom 8-9Designing a Continuum of Learning to AssessMathematical Practice of the Common Core StateStandards

Using investigations published by NCTM in the book "Focus in High School Mathematics: Reasoning and Sense Making in Statistics and Probability," a "Continuum of Learning" will be provided that connects the Standards for Mathematical Practice to opportunities for assessing how students reason. Investigate ways to link the NCTM initiative and the Standards for Mathematical Practice.

Henry Kranendonk, Milwaukee Public Schools, Milwaukee, WI

Monday 4:00–5:00 (continued)

Session 187: Carnegie Learning, Inc. Sponsor Showcase

Middle 6–8

How Are We Getting Students to Think More Deeply About Mathematics?

Sandy Bartle, Carnegie Learning, Inc., Pittsburgh, PA **Amy McClure**, Richmond County School District, Augusta, GA

Laura Thomas, Richmond County School District, Augusta, GA

Come learn about the research-based and pedagogical approach taken to develop a middle school mathematics series based on individualization and increasing student motivation. This session will cover the field-testing conducted in the development process and the initial implementation in an urban district.

Session 188: Agile Mind Technology Showcase

Middle 6–8, Secondary 9–12 Marriott Downtown: Lincoln

Using Technology for Student Success in 6–12 Mathematics

Kathi Cook, Charles A. Dana Center, University of Texas at Austin, Austin, TX

Susan Hudson Hull, Charles A. Dana Center, University of Texas at Austin, Austin, TX

The Dana Center and Agile Mind have developed online materials that help teachers engage, motivate, and teach students important mathematics concepts. Participants will learn how the materials support both the Common Core State Standards for Mathematical Practice and for Mathematical Content.

Monday Reception

Session 189

Marriott Downtown: Santa Fe

Sponsored by Carnegie Learning, Inc.

5:45 PM-7:00 PM (ticket required)

JW Marriott: White River Ballroom

Carnegie Learning

Founded by cognitive and computer scientists from Carnegie Mellon University in conjunction with veteran mathematics teachers, Carnegie Learning has the courage to not only question the traditional way of teaching math, but re-invent it. Carnegie Learning, Inc. is a leading publisher of innovative, research-based math curricula for middle school, high school, and post-secondary students. They help students succeed in math, creating a gateway to graduation and preparing them for 21st century careers.



Visit Carnegie Learning at booth 509 in the sponsor display area or at www.carnegielearning.com.

Program Summary Information for Tuesday, April 12, 2011

See page 5 for Conference Strand descriptions.

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	Sponsor Display Area Open									
	JW Marriott 204–205 (100)	Session 208 Secondary (9–12), Strand 1 <i>Revuluri,</i> Can Three Wrongs Make a Right? Helping Teachers and Coaches Use Assessment Items to Drive Students' Thinking		Session 220 General, Strand 3 Clark, Rizzo, Helping	Teachers Understand and Implement the Standards for Mathematical Practice			Session 243 Secondary (9–12), Strand 3 Toncheff, Scott, On Track for Four Years of Mathematics! Discrete Mathematics and Modeling for High School Students AND Teachers		
ırriott Ballroom	JW Marriott 203 (74)	Session 203 General, Strand 2 Fonzi, Callard, Martin, Confronting the Challenges of Working with Low- Performing Schools: Some Strategies to Get Started		Session 224 Intermediate (3–5), Strand 2 LaFramenta, Teaching	Mathematics in Depth Using the NCTM Curriculum Focal Points			Session 235 General, Strand 3 <i>Anthony Scott, Inviting</i> <i>Children of African Descent</i> <i>into a Mathematics Lesson</i>		un: Marriott Ballroom
: Inc., Marriott Downtown: Ma	JW Marriott 201–202 (100)	Session 215 Secondary (9–12), Strand 4 Secondary (9–12), Strand 4 <i>Riser, Powerful Pedagogical</i> <i>Practices Program Serves</i> <i>as Catalyst for Statewide</i> <i>Move to High School</i> <i>Move to High School</i> <i>Problem–Based Curriculum</i> <i>Materials</i>				Session 231 General, Strand 2 Bunt Fierle Miller	Shaneyfelt, Developing	Teachers to Be Learning Professionals		struments, Marriott Downtow
uired), sponsored by Scholasti	JW Marriott 104 (50)	Session 214 Secondary (9–12), Strand 2 Kuehl, Hendrickson, Honey, Sutorius, Addressing the Perfect Storm: Professional Development for Secondary Teachers Focused on Reasoning and Sense			Session 230 General, Strand 2 Fitte Spedden Hunhs	Hanbury, Moving Beyond	Our Initial Vision of Coaching		quired), sponsored by Texas In	
7:30—8:30: Session 201: Tuesday Breakfast (ticket required), sponsored by Scholastic Inc., Marriott Downtown: Marriott Ballroom	JW Marriott 103 (50)	Session 217 College, Strand 3 Akwaji-Anderson, Gichobi, Leadership for Equity in Teacher Education: Inteacher Education: Leadership Framework into Methods Courses				Session 232 Intermediate (3–5), Strand 3 Leimberer Research to	Practice: You Know What	They Know, So, Now What?		12:15—2:15: Session 246, Tuesday Luncheon (ticket required), sponsored by Texas Instruments, Marriott Downtown: Marriott Ballroom
7:30-8:30: Session 201:	JW Marriott 101–102 (100)	Session 209 Secondary (9–12), Strand 3 <i>Southworth, CNECT-ing</i> <i>Mathematics and Career</i> <i>Technical Education</i>		Session 227 Secondary (9–12), Strand 1 Fetter, Using Screen	Capture Movies to Assess Quadrilateral Constructions in Sketchpad			Session 241 Niddle (6–8), Strand 4 Carman, Jenoure, Lazzaro, Using STEM to Link the Common Core State Standards for Mathematics and for English Language Arts & Literacy		12:15–2:15 : Session 24
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	JW Marriott 204–205 (100)	Session 255 Secondary (9–12), Strand 3 <i>Burrill, Research,</i> <i>Instructional Practices, and</i> <i>Technology in Secondary</i> <i>Schools</i>		
	JW Marriott 203 (74)		4:15–5:30 caucuses.	t Ballroom
mmary	JW Marriott 201–202 (100)	Session 258 General, Strand 2 Hull, Balka, Harbin Miles, Overcoming Resistance to Change: On Track for Equity	All Tuesday 4:15–5:30 sessions are caucuses.	Marriott Downtown: Marriot
Tuesday Summary	JW Marriott 104 (50)	Session 261 General, Strand 2 General, Strand 2 <i>Hearn, McGlone,</i> <i>Professional Learning</i> <i>Communities: PLC + You</i> <i>= Continuous Commitment</i> <i>to Student Learning</i>	Session 269 Seitz, Western Region 1 Caucus	5:45—7:00: Session 273, Tuesday Reception (ticket required), Sponsored by Pearson, Marriott Downtown: Marriott Ballroom
	JW Marriott 103 (50)	Session 260 General, Strand 2 Gat ely, Everett, Johnson, Staley, Everett, Johnson, Stalenhaar, Leading with Passion: Still No with Passion: Still No Uther	Session 272 Bradsby , NCSM Past Presidents Caucus	, Tuesday Reception (ticket rec
	JW Marriott 101–102 (100)	Session 251 General, Strand 2 General, Strand 2 <i>Kinzer, Bradley,</i> How do University Math Educators, Teachers, and Leaders Create a Partnership for Changing Teaching Practices for Increasing Student Learning?	Session 266 <i>Kendrick,</i> Eastern Region 2 Caucus	5:45-7:00: Session 273,
		2:45	4:15	5:30

	7:30-8:30: Session 201	: Tuesday Breakfast (ticket req	uired), sponsored by Scholasti	7:30—8:30 : Session 201: Tuesday Breakfast (ticket required), sponsored by Scholastic Inc., Marriott Downtown: Marriott Ballroom	rriott Ballroom	
	JW Marriott: White River Ballroom A (60)	JW Marriott: White River Ballroom B-C (110)	JW Marriott: White River Ballroom D (60)	JW Marriott: White River Ballroom E (550)	JW Marriott: White River Ballroom F (550)	JW Marriott: White River Ballroom G (60)
8:45	Session 206 Intermediate (3–5), Strand 3 Lawrence, Use Webinars to Deliver Real-Time, Interactive, Hands- on, Discovery-Based Tutoring and Professional Development	Session 216 Secondary (9–12), Strand 3 Lym, Ghoison, Algebra Intensification: Research- Informed Strategies to Help Struggling Students Succeed	Session 213 General, Strand 2 Miller, Coaching Mathematics Teachers to Use Research-Informed Best Practices to Ensure Success for All Students in Mathematics	Session 202: Major Session General Simpson Leak, The Will to Transform	Session 218 General, Strand 3 McCallum, Daro, Zimba, Schrock (moderator), Panel: Supporting Implementation of the Common Core State Standards in Mathematics	Session 210 Secondary (9–12), Strand 3 Lindaman, Fostering High- Level Thinking for All with Open-Ended Problems
9:45						
10:00 10:15	Session 221 General, Strand 2 <i>Bimbev</i> First Things First ⁻			Session 219: Major Session General		Session 226 Secondary (9–12), Strand 1 Dick Burrill Cohen
	Prioritizing Place Value in Professional Development for K-4 Mathematics			Barab, Dramatic Agency and Transformational Play: Why Should Educators Care		Orchestrating Mathematical Discourse—What Has Technology Got to Do with
10:45	leacners	Session 233 Middle (6–8), Strand 3 Knudsen. Shechtman.		About Videogames /		II.
200		Improvisation in Teaching				
11:15	Session 237 General, Strand 3 <i>Armstrong, Mabbott,</i> The Role of Electronic Media in Supporting Instruction	and Teacher Learning		Session 234: Major Session General Thomas, Sticking to Your Diet: A Mathematical Approach	Session 236 General, Strand 1 Forgione, Halka, Measuring the Common Core State Standards: Implications of Common Assessments for Mathematics Leaders and Teachers	Session 239 Intermediate (3–5), Strand 1 Bay-Williams, Karp, Using Diagnostic Interview Assessments to Steer Planning and Instruction
12:15						
	12:15–2:15 : Session 24	6, Tuesday Luncheon (ticket re	equired), sponsored by Texas lr	12:15—2:15: Session 246, Tuesday Luncheon (ticket required), sponsored by Texas Instruments, Marriott Downtown: Marriott Ballroom	n: Marriott Ballroom	

Tuesday Summary

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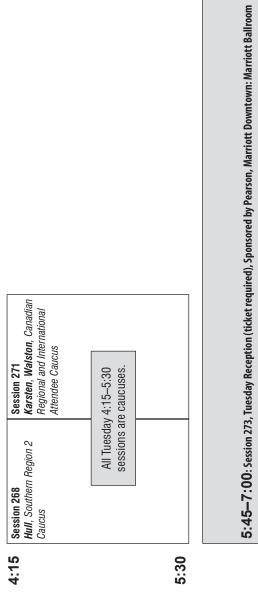
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JW Marriott: White River Ballroom G (60)	Session 248 General, Strand 2 General, Strand 2 Callard, Fonzi , Teachers, Teacher Leaders, and Admitsators Share Their Stories of Participation in a National Science Foundation Math and Science Partnership Project		Session 265 <i>Muri.</i> Eastern Region 1 Caucus		
JW Marriott: White River Ballroom F (550)	Session 250 General, Strand 1 <i>Kanold,</i> Becoming an Assessment Leader: Formative Assessment in a Summative Assessment World!		Session 263 <i>Mills</i> , Central Region 1 Caucus	All Tuesday 4:15–5:30 sessions are caucuses.	t Ballroom
JW Marriott: White River Ballroom E (550)	Session 247: Major Session General General <i>Shaughnessy, Salls,</i> <i>Martin,</i> Focus on Math Reasoning and Sense Making: NCTM's Long- term Initiative on Teaching Secondary Math		Session 270 <i>Munshin</i> , Western Region 2 Caucus	All Tuesday sessions are	Marriott Downtown: Marriott
JW Marriott: White River Ballroom D (60)	Session 262 Secondary (9–12), Strand 2 Secondary (9–12), Strand 2 <i>Steele, Arbaugh, Boyle,</i> <i>Enhancing the Reasoning-</i> <i>and-Proving Content of</i> <i>Textbook Tasks: A Site</i> <i>for Teacher Professional</i> <i>Development</i>				5:45—7:00: Session 273, Tuesday Reception (ticket required), Sponsored by Pearson, Marriott Downtown: Marriott Ballroom
JW Marriott: White River Ballroom B-C (110)	Session 259 General, Strand 2 Miller, Ten Key Ideas for Designing High Quality Professional Development		Session 267 Birmie, Southern Region 1 Caucus		, Tuesday Reception (ticket rec
JW Marriott: White River Ballroom A (60)	Session 249 General, Strand 3 <i>Martin, O'Clair,</i> <i>Responding to Intervention</i> <i>Through Mathematics</i> <i>Instruction</i>		Session 264 Schrock, Central Region 2 Caucus		5:45-7:00: Session 273
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room	Marriott Downtown: Santa Fe (66)	Session 211: Scholastic Inc. Sponsor Showcase PK–8 <i>Trow,</i> The Core Within the Core: The Common Core State Standards and Implications for Intervention		Session 228: CASIO AMERICA, INC. Sponsor Showcase General General <i>Horton</i> , Using Technology and Context to Foster Mathematical Thinking	Session 24: Key Curriculum Press Sponsor Showcase General Gee, Ignite! Speakers Enlighten the Room with Fresh Ideas in Mathematics	tt Ballroom
ırriott Ball	Marri	Session Inc. Spo PK–8 <i>Trow, Th</i> <i>the Core</i> <i>Core Sta</i> <i>Implicati</i>		Session 22 AMERICA, Showcase General Horton. Us and Contex Mathematia	Session 24 Curriculum Showcase General Coe, ignitel Fresh Ideas	/n: Marrio
c Inc., Marriott Downtown: Ma	Marriott Downtown: Lincoln (66)	Session 212: Texas Instruments Technology Showcase Grades 7–12 Bird, TI-Nspire Fosters an Interactive Experience with the TI-Nspire Navigator and an Interactive Whiteboard		Session 229: Math Teachers Press, Inc. Technology Showcase Grades 3–8 <i>Pierson, Johnson, Using</i> Moving with Math Web- Based Assessment for Response to Intervention (Rtl)	Session 245: Casio America, Inc. Technology Showcase General Reiners, Diel, Transforming Student Perspectives Through Color!	struments, Marriott Downtow
uired), sponsored by Scholastic	Marriott Downtown: Austin/Boston (40)	Session 204 General, Strand 2 <i>Strutchens, Fostering</i> <i>Secondary Teacher</i> <i>Leadership Through Multiple</i> <i>Venues</i>		Session 223 Intermediate (3–5), Strand 3 Smith, Sweary, Understanding and Addressing the Challenge of Teaching and Learning Measurement	Session 238 Primary (P.K2), Strand 3 Tickle, Showing Teachers the Importance of a Deep Understanding of Place Value to Aid the Development of Efficient Mental Strategies	quired), sponsored by Texas In
7:30—8:30: Session 201: Tuesday Breakfast (ticket required), sponsored by Scholastic Inc., Marriott Downtown: Marriott Ballroom	JW Marriott: White River Ballroom J (60)	Session 207 Middle (6–8), Strand 2 <i>Silbey,</i> Students Held Accountable Through Discourse and Performance: Listen and Learn		Session 222 Primary (PK–2), Strand 3 Tondevold, Erb, Assisting Struggling Students: Response to Intervention (Rtl) Tier 1 and 2 Activities That Build Mathematical Relationships	Session 240 Intermediate (3–5), Strand 2 <i>Freeman, Felux, Common</i> <i>Core State Standards—</i> <i>Supporting Instruction</i>	12:15—2:15: Session 246, Tuesday Luncheon (ticket required), sponsored by Texas Instruments, Marriott Downtown: Marriott Ballroom
7:30–8:30: Session 201:	JW Marriott: White River Ballroom H-I (110)	Session 205 Intermediate (3–5), Strand 3 <i>Storeygard, Garcia</i> , Guided <i>Mathematics Groups:</i> <i>Differentiated Learning for</i> <i>Response to Intervention</i>		Session 225 Middle (6–8), Strand 3 Dockterman, Research Meets Technology: New Ways to Differentiate Mathematics Instruction	Session 242 Secondary (9–12), Strand 3 Mills, Silver, Gosen, Devine, Strengthening Connections and Connections and Conterence: Learning Trajectories, Anchor Tasks, and Analysis of Student Work	12:15–2:15 : Session 24
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Tuesday Sessions by Strand

Strand 1: Assessment of Students/ Assessment of Teaching

Session	Location	Time
208	JW Marriott: 204-205	8:45–9:45
226	JW Marriott: White River Ballroom G	10:00-11:00
227	JW Marriott: 101-102	10:00-11:00
236	JW Marriott: White River Ballroom F	11:15-12:15
239	JW Marriott: White River Ballroom G	11:15-12:15
250	JW Marriott: White River Ballroom F	2:45–3:45

Strand 2: Developing Coaches/ Developing Teachers

Session	Location	Time
203	JW Marriott: 203	8:45-9:45
204	Marriott Downtown: Austin/Boston	8:45–9:45
207	JW Marriott: White River Ballroom J	8:45-9:45
213	JW Marriott: White River Ballroom D	8:45-10:15
214	JW Marriott: 104	8:45-10:15
221	JW Marriott: White River Ballroom A	10:00-11:00
224	JW Marriott: 203	10:00-11:00
230	JW Marriott: 104	10:45-12:15
231	JW Marriott: 201-202	10:45-12:15
240	JW Marriott: White River Ballroom J	11:15-12:15
248	JW Marriott: White River Ballroom G	2:45-3:45
251	JW Marriott: 101-102	2:45-3:45
253	JW Marriott: White River Ballroom J	2:45-3:45
258	JW Marriott: 201-202	2:45-4:15
259	JW Marriott: White River Ballroom B-C	2:45-4:15
260	JW Marriott: 103	2:45-4:15
261	JW Marriott: 104	2:45-4:15
262	JW Marriott: White River Ballroom D	2:45-4:15

Strand 3: Teaching & Learning

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Session	Location	Time
205	JW Marriott: White River Ballroom H-I	8:45-9:45
206	JW Marriott: White River Ballroom A	8:45-9:45
209	JW Marriott: 101-102	8:45-9:45
210	JW Marriott: White River Ballroom G	8:45-9:45
216	JW Marriott: White River Ballroom B-C	8:45-10:15
217	JW Marriott: 103	8:45-10:15
218	JW Marriott: White River Ballroom F	8:45-11:00
220	JW Marriott: 204-205	10:00-11:00
222	JW Marriott: White River Ballroom J	10:00-11:00
223	Marriott Downtown: Austin/Boston	10:00-11:00
225	JW Marriott: White River Ballroom H-I	10:00-11:00
232	JW Marriott: 103	10:45-12:15
233	JW Marriott: White River Ballroom B-C	10:45-12:15
235	JW Marriott: 203	11:15-12:15
237	JW Marriott: White River Ballroom A	11:15-12:15
238	Marriott Downtown: Austin/Boston	11:15-12:15
242	JW Marriott: White River Ballroom H-I	11:15-12:15
243	JW Marriott: 204-205	11:15-12:15
249	JW Marriott: White River Ballroom A	2:45-3:45
252	Marriott Downtown: Austin/Boston	2:45-3:45
254	JW Marriott: White River Ballroom H-I	2:45-3:45
255	JW Marriott: 204-205	2:45-3:45

Strand 4: STEM (Science, Technology, Engineering, & Mathematics)

Session	Location	Time
215	JW Marriott: 201-202	8:45-10:15
241	JW Marriott: 101-102	11:15-12:15

Tuesday Breakfast

Session 201

Sponsored by Scholastic Inc.

Marriott Downtown: Marriott Ballroom

7:30 AM-8:30 AM

(ticket required)

For nearly 90 years, Scholastic has recognized the importance of working with public, private, and non-profit organizations that share its mission and goals to improve the well-being of children. Scholastic's total commitment to social responsibility and educational outreach is demonstrated by its diverse partnerships, which address today's most critical issues facing communities, with an emphasis on reading and literacy.

■ SCHOLASTIC

Common Standards and Uncommon Teaching: Different Paths to the Same Goal

David Dockterman, Adjunct Lecturer on Education and Technology, Harvard Graduate School of Education, Chief Academic Officer at Scholastic Math Intervention

The Common Core State Standards provide us with a shared endpoint for mathematics instruction. However, not all students can or will follow the same instructional path or pace to reach those standards. Adaptive technology and data-informed teaching can help guide and manage those various paths.



David Dockterman is a nationally recognized pioneer in the development and implementation of technology for classroom instruction, especially its use and effectiveness with underperforming students. A former social studies teacher, David joined Tom Snyder Productions in 1982 while earning his EdD from the Harvard Graduate School of Education. At Tom Snyder, and later at Scholastic, David has designed several award-winning computer programs including Science Court, the Great Ocean Rescue, and FASTT Math. Most recently, Dr. Dockterman served as chief advisor for the development of Fraction Nation, published in 2010. Fraction Nation is a highly motivating supplemental technology program designed to support intermediate and middle school students who struggle with fractions and decimals. David is a frequent—and popular—speaker at NCSM. He is also a lecturer on education at the Harvard

Graduate School of Education where his courses in educational technology and instructional design draw students from around the world.

Visit Scholastic Inc. at booth 313 in the sponsor display area or at www.scholastic.com/mathintervention.

Attend an NCSM Summer Leadership Academy. See our ad behind the Conference Information tab.	
Support the Iris Carl Mathematics Leadership Fund. See page 82 for more information.	•••••
Attend your Regional Caucus on Tuesday afternoon. See page 56 for details.	

Tuesday 8:45–9:45

Session 202: Major Session

General

JW Marriott: White River Ballroom E

The Will to Transform

Donna Simpson Leak, Rich Township High School District 227, Olympia Fields, IL

Presider: Denise Walston, NCSM Second Vice President In today's world of education, there are a variety of learning opportunities and support systems to inform how we transform schools into high achieving centers of excellence. The real question for the leader is, "Do we have the will to actually do what we already know is best practice?" As leaders, we will address the concept of the "will," and how you, as a leader, can create this "will" in your team.



Donna Simpson Leak is the

superintendent of Rich Township High School District 227, an instructor for the NCSM Summer Leadership Academies, and the NCSM awards chairperson. Leak has worked as a high school mathematics teacher and elementary, middle, and high school administrator, as well as international

consultant with the Department of Defense and American Community Schools in Western Europe, Asia, and South America. She has trained thousands of teachers abroad and in large domestic areas such as New York, Detroit, Los Angeles, Atlanta, and Memphis. She has spoken at more than 200 conferences worldwide and represented the United States at the International Congress on Mathematical Education in Seville, Spain. Leak has served on the NCSM Board of Directors for 10 years in a variety of capacities and been a member of NCSM for close to 20 years.

Session 203 Strand 2

General JW Marriott: 203

Confronting the Challenges of Working with Low-Performing Schools: Some Strategies to Get Started

"Doom and gloom" hang over everyone's head in a lowperforming school. It permeates all discussions and significantly hampers attempts to improve. We will share some strategies that have helped our eight schools break through this culture and begin to create possibilities. The audience is encouraged to share successful strategies.

Judith Fonzi, University of Rochester, Rochester, NY Cynthia Callard, University of Rochester, Rochester, NY Stephanie Martin, University of Rochester, Rochester, NY

Session 204 General Strand 2 Marriott Downtown: Austin/Boston Fostering Secondary Teacher Leadership Through Multiple Venues

Participants will learn about a program designed to develop teacher leaders at the secondary level. Teachers in the program are working on advanced mathematics education degrees and attending leadership workshops designed to help them mentor and coach preservice and inservice teachers in inquiry-based mathematics teaching.

Marilyn Strutchens, President, Association of Mathematics Teacher Educators, Auburn University, Auburn, AL

Session 205Intermediate (3–5)Strand 3JW Marriott: White River Ballroom H-IGuided Mathematics Groups: Differentiated Learning
for Response to Intervention

We will engage participants in examples of guided mathematics groups from real practice, both from video and written episodes, in order to analyze the goals of these groups, and the strategies involved in forming and implementing these sessions. The focus will be on students who are having difficulty learning mathematics.

Judy Storeygard, TERC, Cambridge, MA Marta Garcia, Haw Creek Elementary School, Asheville, NC

Session 206

Intermediate (3–5) JW Marriott: White River Ballroom A

Strand 3 JW Marriott: White River Ballroom Use Webinars to Deliver Real-Time, Interactive, Hands-on, Discovery-Based Tutoring and Professional Development

Become actively engaged in learning how to use and deliver webinar-based tutoring for after school and inclusion programs, as well as professional development for teachers. Participate in a brief simulated webinar experience featuring Smartboard technology and Communicator Clearboards that focus on topics from geometry, basic operations, and number theory.

Paul Lawrence, LL Teach Inc, Bridgewater, NJ

Tuesday 8:45-9:45 (continued)

Session 207	Middle (6–8)
Strand 2	JW Marriott: White River Ballroom J
Students Held Account	table Through Discourse and
Performance: Listen a	nd Learn

Are we teaching our students to fish, or merely giving them fish every day? Participate in a lesson study simulation and summarize over 100 bell-to-bell classroom observations. Success rests on our students' ability to actively learn and be held accountable for their knowledge. You will personally experience how this can be accomplished.

Robyn Silbey, Montgomery County Public Schools, Gaithersbrug, MD

Session 208Secondary (9–12)Strand 1JW Marriott: 204-205Can Three Wrongs Make a Right? Helping Teachersand Coaches Use Assessment Items to Drive Students'Thinking

Teachers can do more with large-scale assessment items than test prep! Coaches and leaders can help teachers use items for more than drill, driving students' thinking to higher levels. Gain insight into test construction, and learn tools and professional development strategies to help teachers use test items to get at students' thinking.

Sendhil Revuluri, University of Illinois at Chicago, Chicago, IL

Session 209 Strand 3 CNECT-ing Mathematics and Career Technical Education

CNECT-Math establishes powerful collaborations between career technical education (CTE) and mathematics teachers in Maine. Regional Professional Learning Communities (PLC) of teachers make connections as they co-develop and co-teach lessons, integrating practical, real-world applications with content theory in the areas of measurement, data, and statistics.

Margaret (Meghan) Southworth, Maine Mathematics and Science Alliance, Augusta, ME

Session 210 Strand 3 Fostering High-Level Thinking for All with Open-Ended Problems

A professional development program for teacher leaders has enabled teachers to utilize, adapt, and create open-ended problems to use in their curricula. The advantage of openended tasks is that they engage all students in meaningful mathematics. We will provide ideas for adapting and creating open-ended problems in geometry, algebra, and data analysis.

Brian Lindaman, Montana State University, Bozeman, MT

Session 211: Scholastic Inc. Sponsor Showcase

PK-8

Grades 7–12

Marriott Downtown: Santa Fe

The Core Within the Core: The Common Core State Standards and Implications for Intervention

Marilyn Trow, Scholastic Inc., New York, NY

The Common Core State Standards strive for greater focus and coherence by focusing on key ideas and organizing principles. Learn how to identify the core foundations within the standards, in order to effectively reach your most struggling students.

Session 212: Texas Instruments Technology Showcase

Marriott Downtown: Lincoln

TI-Nspire Fosters an Interactive Mathematics Instruction and Assessment Experience with the TI-Nspire Navigator and an Interactive Whiteboard

Sean Bird, Covenant Christian High School, Indianapolis, IN

See how the TI-Nspire Navigator is used with interactive whiteboards for formative assessment or review/ preparation for high-stakes tests. Hear about inquiry learning resources from NASA, TI, and publishers focused on improving instruction of middle school and high school mathematics topics.

Receive admittance to Wednesday's NCTM Research Presession at the Indianapolis Convention Center by wearing your NCSM name badge. Submit a proposal to speak at the 2012 Annual Conference in Philadelphia. See page 81 for details. Look for an email next week inviting you to complete the Online Conference Feedback Survey.

Tuesday 8:45–10:15 (Extended)

Session 213

General

Strand 2 JW Marriott: White River Ballroom D **Coaching Mathematics Teachers to Use Research-**Informed Best Practices to Ensure Success for All **Students in Mathematics**

How do we coach teachers to help all students be successful? Examine a mathematics coaching model which has helped an Algebra I team lower their failure rate by establishing a Professional Learning Community, training teachers on "best practices," and leading teachers to perform their own peer observations.

Lisa Miller, Napa Valley Unified School District, Napa, CA

Session 214	Secondary (9–12)
Strand 2	JW Marriott: 104
Addressing the Perfect Sto	rm: Professional

Development for Secondary Teachers Focused on Reasoning and Sense Making

NCTM and the Common Core State Standards create a new vision for secondary mathematics. How do we support teachers as they rethink mathematics and how it is taught? We will discuss professional development that enhances teacher knowledge of mathematics for teaching, sharpens their focus on student thinking, and develops new pedagogical strategies.

Barbara Kuehl, Salt Lake City School District, Salt Lake City, UT

Scott Hendrickson, Brigham Young University, Provo, UT Joleigh Honey, Salt Lake City School District, Salt Lake City, UT

Janet Sutorius, Juab School District, Nephi, UT

Session 215 Secondary (9–12) JW Marriott: 201-202 Strand 4 **Powerful Pedagogical Practices Program Serves as**

Catalyst for Statewide Move to High School Problem-Based Curriculum Materials

How can we motivate our nation's high schools to embrace and move toward a new and innovative vision for mathematics teaching and learning, a STEM-Wise approach centered on problem-based instruction? Learn how Delaware intends to Race to the Top in its pursuit of a new "normal" for high school mathematics classrooms.

Jamila Riser, Delaware Mathematics Coalition, Felton, DE

Session 216 Secondary (9–12) Strand 3 JW Marriott: White River Ballroom B-C

Algebra Intensification: Research-Informed Strategies to Help Struggling Students Succeed

Today, all students must succeed in Algebra I, including those who are underprepared. Additional instructional time alone is not sufficient. Learn about comprehensive research-informed strategies from a current National Science Foundation (NSF) funded project to help underprepared students succeed in Algebra I. Highlighted strategies include those from mathematics learning, literacy, social psychology, and special education.

James Lynn, University of Illinois at Chicago, Chicago, IL Maisie Gholson, University of Illinois at Chicago, Chicago, IL

Session 217 College Strand 3 JW Marriott: 103 Leadership for Equity in Teacher Education: Infusing the NCSM PRIME Leadership Framework into **Methods Courses**

We will share our team's journey of infusing the NCSM PRIME Leadership Framework into our teacher education program through a mathematics methods course. Specific examples and the preservice teachers' end of semester reflections will be discussed to demonstrate the outcomes of our initial efforts.

Comfort Akwaji-Anderson, Iowa State University, Ames, IA Mary Gichobi, Iowa State University, Ames, IA

General

Tuesday 8:45–11:00

Session 218 Strand 3 JW Marriott: White River Ballroom F **Panel: Supporting Implementation of the Common Core State Standards in Mathematics**

We will describe various projects that are underway to support implementation of the Common Core State Standards in Mathematics, including a technical manual describing higher order structures in the standards, such as a flow of ideas or a tie between different domains; a collection of standards progressions describing the standards in narrative form by domain across grade levels, with commentary on particularly knotty areas of mathematics, or common areas of student difficulty; and the Illustrative Mathematics Project (illustrativemathematics.org), collecting sample tasks and problems illustrating the standards.

William McCallum, The University of Arizona, Tucson, AZ Phil Daro, America's Choice, Washington, DC Moderator: Connie Schrock, NCSM Regional Director

Tuesday 10:00-11:00

Session 219: Major Session

General JW Marriott: White River Ballroom E Dramatic Agency and Transformational Play: Why Should Educators Care About Videogames?

Sasha Barab, Indiana University, Bloomington, IN *Presider:* Richard Seitz, NCSM Regional Director



Over the last decade, video games and other online media have become one of the most significant forums for the enculturation of youth. Though many academics have little first-hand experience with videogames, two generations of adults have grown up with videogames, and a multi-billion dollar industry has developed alongside

these players. In most contemporary videogames, learners do not mindlessly click on buttons, but instead engage in rich narrative storylines and employ complex problem solving strategies as they come to master and appreciate the underlying game dynamics. In addition, videogames stimulate rich forms of participation that enlist membership and identity in ways that occur in only the most advanced curricular designs. In fact, scholars are increasingly documenting the discursive richness, depth of collaborative inquiry, complexity of game play, and multifaceted forms of learning and participation that videogames can support.

In this talk, I will begin with an overview of why educators should care about videogames. I will discuss a design methodology that we have used to support powerful learning and engagement as we foster a sense of dramatic agency as part of the learning experience. More than a theoretical discussion, I will ground these ideas in our work on the Quest Atlantis project where we have designed numerous curricular designs to support transformational play in which players take on the role of scientists, reporters, accountants, etc., who use academic content to resolve problematic fictional storylines that unfold in virtual worlds. Specifically, I will discuss the Quest Atlantis (QA) project (QuestAtlantis.org), an international learning and teaching project, that uses a 3D multi-user environment to immerse over 50,000 children, ages 9-15, in educational tasks. As preparation for this talk, please feel free to explore our site and learn more about this exciting project.

Sasha Barab is a professor in Learning Sciences and Cognitive Science at Indiana University, where he also holds the Barbara Jacobs Chair of Technology. His research has resulted in numerous grants, dozens of academic articles, and multiple chapters in edited books, which investigate knowing and learning in their material, social, and cultural context. The intent of this research is to develop rigorous claims about how people learn that have significant practical, pedagogical, and theoretical implications. His current work involves the research and development of rich learning environments, frequently with the aid of technology, that are designed to assist children and adults in developing their sense of purpose as individuals, as members of their communities, and as knowledgeable citizens of the world. His recent work involves combining strategies used in the commercial gaming environment with lessons from educational research on learning and motivation.

Session 220 General Strand 3 JW Marriott: 204-205 Helping Teachers Understand and Implement the Standards for Mathematical Practice

The third Standard for Mathematical Practice states that students should construct viable arguments and critique the reasoning of others. This session addresses this standard, what it looks and sounds like in a rich mathematical environment, and what teachers need to know and understand to engage students in these practices.

Patty Clark, Math Solutions, Sausalito, CA Nickie Rizzo, Math Solutions, Sausalito, CA

Session 221 General Strand 2 JW Marriott: White River Ballroom A First Things First: Prioritizing Place Value in Professional Development for K–4 Mathematics Teachers

Join us as we explore the critical role place value plays in teaching and learning number and operations concepts. This trainer-of-trainers session will focus on professional development strategies and content to help teachers make the connections between their practices and student learning. Each participant will receive a ready-to-use workshop.

Kimberly Rimbey, Rodel Foundation of Arizona, Scottsdale, AZ

Session 222 Primary (PK–2) Strand 3 JW Marriott: White River Ballroom J Assisting Struggling Students: Response to Intervention (Rtl) Tier 1 and 2 Activities That Build Mathematical Relationships

It is recommended that Response to Intervention focus on issues of number, including solving word problems, providing visual representations, and devoting 10 minutes of each session to basic facts. Participants will explore how to help intervention instructors combine all four recommendations by using activities that build mathematical relationships.

Christina Tondevold, Mathematically Minded, Boise, ID Gay Lynn Erb, Meridian School District, Meridian, ID

Tuesday 10:00-11:00 (continued)

Session 223	Intermediate (3–5)
Strand 3	Marriott Downtown: Austin/Boston
Understanding and Add	ressing the Challenge of
Teaching and Learning M	leasurement

United States students' learning of spatial measurement (length, area, volume) remains weak, and no consensus exists for how to improve it. This session will show how conceptual deficits in our elementary written curricula contribute to the problem, and how professional development using well-chosen measurement tasks can solve this problem.

Jack Smith, Michigan State University, East Lansing, MI Shannon Sweeny, Michigan State University, East Lansing, MI

Session 224 Intermediate (3–5) Strand 2 JW Marriott: 203 Teaching Mathematics in Depth Using the NCTM Curriculum Focal Points

What does it mean to teach mathematics in depth? How does the practice look to an elementary school teacher, and how can coaches make this instruction more transparent? Research from classrooms in a state that uses the NCTM Curriculum Focal Points as the structure for its mathematics standards will be presented.

Joanne LaFramenta, University of Florida, Gainesville, FL

Session 225 Middle (6–8) Strand 3 JW Marriott: White River Ballroom H-I Research Meets Technology: New Ways to Differentiate Mathematics Instruction

Emerging research in cognitive neuroscience, behavioral psychology, neuroeconomics, and mathematics education illuminates differences in student cognitive processing, motivation, attentiveness, background knowledge, language, and culture. This session invites participants to explore how that research can guide the development and use of innovative technology to support a rich, differentiated classroom learning environment.

David Dockterman, Scholastic Inc., Watertown, MA

Session 226 Secondary (9–12) Strand 1 JW Marriott: White River Ballroom G Orchestrating Mathematical Discourse—What Has Technology Got to Do with It?

Orchestrating productive mathematical discourse starts with worthwhile tasks, questions that promote sense making and reasoning, and opportunities for students to share their thinking with the teacher and with other students. Technology can play a powerful role in providing new opportunities for students to share their mathematical approaches, strategies, and solutions.

Thomas Dick, Oregon State University, Corvallis, OR Gail Burrill, Michigan State University, East Lansing, MI Jessica Cohen, Western Washington University, Bellingham, WA

Session 227 Strand 1

General

Grades 3–8

Secondary (9–12) JW Marriott: 101-102

Using Screen Capture Movies to Assess Quadrilateral Constructions in Sketchpad

In the online master's class I teach, which is focused on using Sketchpad in grades 6 to Calculus, my students make movies to record their interactions with the technology. I've since supported my students' implementation of videos to document and assess their own students' work. We'll focus on examples featuring quadrilateral constructions.

Annie Fetter, The Math Forum @ Drexel, Philadelphia, PA

Session 228: CASIO AMERICA, INC. Sponsor Showcase

Marriott Downtown: Santa Fe

Using Technology and Context to Foster Mathematical Thinking

Robert Horton, Clemson University, Clemson, SC PRIZM, and its correlated book series, offers intriguing, meaningful, investigations targeting "big ideas" in secondary mathematics. Our books build on students' interests and intuition to foster rich mathematical thinking. Never again hear, "When will I ever use this?" Receive a PRIZM and related materials!

Session 229: Math Teachers Press, Inc. Technology Showcase

Marriott Downtown: Lincoln

Using Moving with Math Web-Based Assessment to Improve Achievement and Differentiate Instruction for Response to Intervention (RtI)

Caryl Pierson, Math Teachers Press, Inc., Minneapolis, MN

Amy Johnson, Math Teachers Press, Inc., Minneapolis, MN

Participants will access the Moving with Math Web-Based Assessment to learn how easy our summative and formative reports make it to interpret data to improve instructional quality, differentiate instruction, monitor progress, and provide accountability. Reports include state and national standards.

Receive admittance to Wednesday's NCTM Research Presession at the Indianapolis Convention Center by wearing your NCSM name badge. Submit a proposal to speak at the 2012 Annual Conference in Philadelphia. See page 81 for details.

Look for an email next week inviting you to complete the Online Conference Feedback Survey.

•••••

Tuesday 10:45–12:15 (Extended)

Session 230 General1 Strand 2 JW Marriott: 104

Moving Beyond Our Initial Vision of Coaching

What do you do when your established coaching program stalls? This session will discuss how one district used a "coach the coach" model to jump start its stalled program. We'll explore one coach's growth in using coaching moves, and its impact on classroom teachers' instructional practice.

Linda Fitte, Virginia Beach City Public Schools, Virginia Beach, VA

Suzie Spedden, Virginia Beach City Public Schools, Virginia Beach, VA

Teresa Hughs, Virginia Beach City Public Schools, Virginia Beach, VA

Jon Hanbury, W.T. Cooke Elementary, Virginia Beach, VA

Session 231 General Strand 2 JW Marriott: 201-202 **Developing Teachers to Be Learning Professionals**

How do teachers lead the way to student learning? Join the principal investigator and project staff to explore lessons learned about developing teacher leadership. Drawing from the final report (Fall 2010) of Southwest Pennsylvania Math and Science Partnership's seven years, explore the characteristics of individuals and districts that experienced progress.

Nancy Bunt, SW PA Math & Science Collaborative, Homestead, PA

Michael Fierle, Allegheny Intermediate Unit, Homestead, PA Andrea Miller, Alleghenv Intermediate Unit, Homestead, PA Sam Shaneyfelt, Math & Science Collaborative of SWPA/ Allegheny Intermediate Unit, Homestead, PA

Session 232 Intermediate (3–5) Strand 3 JW Marriott: 103 Research to Practice: You Know What They Know, So, Now What?

Well designed assessment tools can tell you tons about student understanding. We will look at how these tools are helping teachers better define what it means to "get it," and then describe models and strategies being built into a comprehensive curriculum to help teachers reach more students.

Jennifer Leimberer, University of Illinois at Chicago, Chicago, IL.

Session 233 Middle (6-8) Strand 3 JW Marriott: White River Ballroom B-C Improvisation in Teaching and Teacher Learning

We present the results of an experiment to increase teachers' content and pedagogical knowledge-using improvisational theater methods. When teachers were taught to improvise with a set of teaching moves, they were better able to use their content knowledge in supporting higher-level student discourse. Handson use of sample materials included.

Jennifer Knudsen, SRI International, Menlo Park, CA Nicole Shechtman, SRI International, Menlo Park, CA

Tuesday 11:15–12:15

Session 234: Major Session

General

JW Marriott: White River Ballroom E

Sticking to Your Diet: A Mathematical Approach Diana Thomas, Montclair State University, Upper Montclair, NJ

Presider: Donna Karsten, NCSM Regional Director Research on university learning has demonstrated that students are most engaged by working on problems that are relevant to them. With two out of three Americans deemed overweight, most students identify and respond to applications surrounding weight loss and weight maintenance. The dynamics of weight loss and maintenance can be described using the first law of thermodynamics, and the mathematics can be introduced to students as early as precalculus.

Born from this teaching exercise conducted over four years ago, was an explosion of research using mathematical models to predict and monitor weight loss in patients. I am currently working with several weight change experiment sites using mathematics to foster compliance to target diets, identify eating habits, and retrospectively analyze compliance in weight change experimental results. In this presentation, I will describe our exciting collaborations where we take the research of weight management from the mathematical laboratory bench straight to the patient's bedside.



Diana Thomas is an associate professor of mathematics at Montclair State University. She is the author of over 20 research articles and serves on the editorial board for the International Journal of Difference Equations. She has spent over a decade modeling various biological phenomena and her mathematical model of the West Nile

Virus appeared as the July 2003 cover story in New Scientist. Thomas is highly committed to fostering student interest through engaging mathematical applications. She has co-authored numerous articles with students and she was the organizer for the Undergraduate Research Poster Session sponsored by the Mathematical Association of America from 2005-2010. Her recent interest in mathematics applied to obesity related issues was initiated by her own successful weight loss. Thomas received her BA in mathematics from the University of Montana and her doctorate in mathematics from the Georgia Institute of Technology. After receiving her doctorate, she held a postdoctoral fellowship at the United States Military Academy and the Army Research Laboratory in Adelphi, Maryland.

Tuesday 11:15-12:15 (continued)

Session 235	General
Strand 3	JW Marriott: 203
Inviting Children of African D	escent into a
Mathematics Lesson	

Students of African descent are generally left in the margin of the instructional pedagogy. This presentation is designed to demonstrate how various activities center the life, family, culture, and history of the students into the mathematics lesson. These openings are designed to "invite" the students into the lesson.

Kwame Anthony Scott, Retired, Chicago, IL

Session 236 General Strand 1 JW Marriott: White River Ballroom F Measuring the Common Core State Standards: Implications of Common Assessments for Mathematics Leaders and Teachers

Consortia of states are collaborating to create common measures for student performance and growth, based on the Common Core State Standards. This session will share the work of one consortium to create assessments that signal good instructional practice and support mathematics leaders' work to improve student learning and teacher development.

Kaye Forgione, Achieve, Washington, DC

Tracy Halka, Achieve, Washington, DC

Session 237 General Strand 3 JW Marriott: White River Ballroom A The Role of Electronic Media in Supporting Instruction

Public displays of tasks, discussion points, and key mathematical concepts are critical in effective instruction. However, not all opportunities for making this happen involving technologies are equal. Participants will consider the advantages and limitations for student learning of interactive whiteboards, presentation software (including PowerPoint), and web-based mediums, such as web-conferencing.

Calvin Armstrong, Appleby College, Burlington, Ontario, Canada

Art Mabbott, Seattle Public Schools, Seattle, WA

Session 238 Primary (PK-2) Strand 3 Marriott Downtown: Austin/Boston Showing Teachers the Importance of a Deep Understanding of Place Value to Aid the Development of Efficient Mental Strategies

This session is designed to show the importance of developing a deep understanding of the concept of place value at an early age, if all students are to develop strong number sense and efficient mental computation strategies.

Brian Tickle, Math Education Consultant, Taree, New South Wales, Australia

Session 239 Strand 1

Intermediate (3–5) JW Marriott: White River Ballroom G

Using Diagnostic Interview Assessments to Steer Planning and Instruction

In order to navigate the Common Core State Standards (CCSS) and individual student learning needs, we must use effective assessment tools. Diagnostic interviews illustrate students' "peak performance" while helping teachers stay "on track." We will share a framework, example interviews, and tools for helping teachers develop their own.

Jennifer Bay-Williams, University of Louisville, Louisville, KY

Karen Karp, University of Louisville, Louisville, KY

Session 240 Intermediate (3–5) Strand 2 JW Marriott: White River Ballroom J Common Core State Standards—Supporting Instruction

Standards identify for educators what students need to learn. This session supports supervisors in helping teachers implement standards by addressing these three questions— What mathematics is embedded in the standard? What do I need to understand and plan to do to teach this standard? How will I know what students learned?

Marji Freeman, Math Solutions, Sausalito, CA Carolyn Felux, Math Solutions, Sausalito, CA

Session 241 Middle (6–8) Strand 4 JW Marriott: 101-102 Using STEM to Link the Common Core State Standards for Mathematics and for English Language Arts & Literacy

Standards for English Language Arts & Literacy in History/ Social Studies, Science, and Technical Subjects can provide an opportunity to enhance STEM classrooms with rich mathematical experiences through an integrated lens. What really links the Common Core State Standards for Mathematics to this?

Elaine Carman, The College Board, New York, NY Sandra Jenoure, Hunter College, New York, NY Christopher Lazzaro, The College Board, New York, NY

Tuesday 11:15-12:15 (continued)

Session 242 Strand 3

Secondary (9–12)

Strand 3 JW Marriott: White River Ballroom H-I Strengthening Connections and Coherence: Using Learning Trajectories, Anchor Tasks, and Analysis of Student Work to Enhance Teachers' Practice

This session presents a professional development model for grades 7–12 teachers designed to link mathematical ideas across lessons and courses. Participants will explore the professional development design, beginning with teaching/ learning trajectories that make visible the development of big ideas in algebra, and include cognitively demanding tasks used to assess students' progress along the trajectories.

Valerie Mills, NCSM Regional Director, Oakland Schools, Waterford, MI

Edward Silver, University of Michigan Dearborn, Dearborn, MI

Dana Gosen, Oakland Schools, Waterford, MI

Geraldine Devine, Oakland Schools, Waterford, MI

Session 243	Secondary (9–12)
Strand 3	JW Marriott: 204-205

On Track for Four Years of Mathematics! Discrete Mathematics and Modeling for High School Students AND Teachers

Learn what it takes to build a rigorous 4th year curriculum beyond Algebra II, AND give teachers the content knowledge to teach the course. Participants will experience components of the exciting modeling curriculum, and walk away with sample artifacts, "big ideas" for the course, and Assessment for Learning (AfL) strategies.

Mona Toncheff, Phoenix Union High School District, Phoenix, AZ

Jeanette Scott, Cesar Chavez HS, Phoenix Union High School District, Laveen, AZ

Session 244: Key Curriculum Press Sponsor Showcase

General

Marriott Downtown: Santa Fe

Ignite! Speakers Enlighten the Room with Fresh Ideas in Mathematics

Karen Coe, Key Curriculum Press, Emeryville, CA Presenters entice the audience with five-minutes of fun, upbeat, and informative talks that pique interest, provoke, entertain, and educate. In the Ignite format, timeframes are strictly enforced: five-minutes per presentation and 20 slides that auto-forward every 15 seconds, ready or not.

Session 245: CASIO AMERICA, INC. Technology Showcase

General

Marriott Downtown: Lincoln

Transforming Student Perspectives Through Color!

Mike Reiners, Christ Household of Faith, St. Paul, MN **John Diel**, Retired, Chicago, IL

PRIZM fosters deeper understanding of concepts via a brilliant 65,000 color high-resolution display. Natural Symbolic & Graphical Display removes any technological barriers to learning, while Picture Plot allows students to use real-life pictures for true inquiry-based learning. Receive a PRIZM & emulator software!

Attend your Regional Caucus on Tuesday afternoon. See page 56 for details.

Student Recognition Certificates are available at the Registration Desk.

Nominate a leader in mathematics education for the Ross Taylor/Glenn Gilbert National Leadership Award. See details on page 82.

Tuesday Lunch

Session 246

12:30 PM-2:30 PM (ticket required)

Sponsored by Texas Instruments

Marriott Downtown: Marriott Ballroom



Making STEM Real and Accessible for All

J. Scott Eddins, Tennessee Mathematics Director (ret); COO & Mathematics Consultant, TLJ Consulting Group, Nashville, TN

What does STEM mean to you? We all know that the acronym STEM represents Science, Technology, Engineering, and Mathematics, but what does it really mean when put into practice, and how can it help us accomplish our goals? We are seeing STEM included in Race to the Top, Common Core State Standards, and President Obama's "Educate to Innovate" campaign, not to mention countless other sources. Let's talk about what it can mean in terms of a teacher, a classroom, and a school district. How can in-classroom coaching help our STEM focus? Where can our teachers turn to find mentors in STEM? In mathematics we are used to arriving at one solution—but in this case there are many. Let's open our minds to an out-of-the box discussion to stretch our potential.



Scott Eddins served as the mathematics director at the Tennessee State Department of Education under Governor Bredesen's administration. He directed the Mathematics and Science Partnerships (MSP) Grants, and facilitated STEM professional development with Tennessee's First to the Top grant. He has served as the

president of the Association of State Supervisors of Mathematics (ASSM). He also served as a reviewer for the Common Core State Standards in Mathematics. Scott has spent many years teaching all levels of secondary mathematics in Metro Nashville and Williamson County. Currently, he is teaching and consulting to implement some of the many STEM programs recently developed with Tennessee's grant efforts. He received his doctor of education degree from Trevecca Nazarene University, with an emphasis in mathematics curriculum. Scott has two children beginning school, who occupy his time when he is not thinking about mathematics education.

Nominations for 2012 NCSM Board positions are open. See page 80.

5th Annual Presentation of the Iris Carl Travel Grants



Iris Carl was an international leader in mathematics education, an NCSM Past President, and a Glenn Gilbert Award recipient, who worked tirelessly to support other mathematics education leaders. NCSM honors her through the presentation of the NCSM Iris Carl Travel Grant.

NCSM established the Iris Carl Mathematics Leadership Fund, within the NCSM Charitable Trust, which endows the Grant. As long as there are sufficient funds, NCSM will annually provide up to three Iris Carl Travel Grants to eligible NCSM members to attend the NCSM Annual Conference.

The fund continues to grow through generous contributions. NCSM will mail a thank you letter suitable for use in informing the IRS that no goods or services were provided in return for the contribution.

The Iris Carl Travel Grant application and criteria can be found at mathedleadership.org.

2011 Grant Recipients



Lisa Scott, Billings, MT; Virginia Michelle Mitchell, Katy, TX; Suzanne DeWeese, Baltimore, MD

Submit an article for the NCSM Newsletter or Journal. See pages 83 and 84 for details.

Tuesday 2:45-3:45

Session 247: Major Session

General

JW Marriott: White River Ballroom E

Focus on Mathematical Reasoning and Sense Making: New and Continuing Efforts in NCTM's Long-term Initiative on the Teaching of Secondary Mathematics

J. Michael Shaughnessy, NCTM President, Reston, VA **Jenny Salls**, Sparks High School, Sparks, NV

Gary Martin, Auburn University, Auburn, AL

Presider: Connie Schrock, NCSM Regional Director This past year the National Council of Teachers of Mathematics launched a long-term effort to infuse Mathematical Reasoning and Sense Making into all secondary mathematics classrooms. Starting with a series of publications on Reasoning and Sense Making, the Council is currently developing web-based resources, creating a video library of classroom clips of students engaged in mathematical reasoning, and developing a special conference for secondary teachers and teacher leaders devoted to mathematical reasoning and sense making for the summer of 2011. This session will share the Council's vision and progress on this new secondary initiative, and discuss how this work in Reasoning and Sense Making connects to the new Common Core State Standards.



J. Michael Shaughnessy received his PhD in mathematics education from the Department of Mathematics at Michigan State University in 1976. He worked in the Department of Mathematics at Oregon State University from 1976 until 1991, and subsequently at Portland State University in the Department of

Mathematics & Statistics, where he also was the director of the doctoral program in mathematics education. Shaughnessy has taught mathematics content courses and directed professional development experiences for mathematics teachers at all levels, K-12, community college, and university. He has authored or co-authored over 60 articles, books, and book chapters on issues in the teaching and learning of mathematics education.

Throughout his career, Shaughnessy's principal research interests have been in the teaching and learning of both geometry, and statistics and probability. He has explored students' understanding of chance and data since his graduate student days, and has attempted to synthesize and build on the contributions of psychologists and math/stat educators alike to explore our understanding of student learning in these areas.

Shaughnessy served as a member of the NCTM Board of Directors from 2001-2004 and is currently serving a two-year term as NCTM President.

Session 248 Strand 2

General JW Marriott: White River Ballroom G

Teachers, Teacher Leaders, and Administrators Share Their Stories of Participation in a National Science Foundation Math and Science Partnership Project to Deepen Mathematics Content Knowledge

Based on participation in an National Science Foundation (NSF) Math and Science Partnership (MSP) Project, teachers, teacher leaders, and administrators wrote stories about their personal journeys in the classroom and as leaders. What impacted them? What challenged them? We will share some of these stories and reflect on what we can learn from them.

Cynthia Callard, University of Rochester, Rochester, NY Judi Fonzi, University of Rochester, Rochester, NY

Session 249 General Strand 3 JW Marriott: White River Ballroom A Responding to Intervention Through Mathematics Instruction

Denver Public Schools began its journey to include mathematics in Response to Intervention with a focus on instruction grounded in our core mathematics programs. We'll share tools that we created during the selection process and a guide for teachers to differentiate classroom instruction (grades 1–12), and trace our successes and challenges.

Cathy Martin, Denver Public Schools, Denver, CO Kris O'Clair, Denver Public Schools, Denver, CO

Session 250

General

Strand 1 JW Marriott: White River Ballroom F Becoming an Assessment Leader: Formative Assessment in a Summative Assessment World!

This highly motivational message will provide deep insight into how a school mathematics leader and coach systemically unveil and eliminate student inequities caused by wide variance in the rigor, writing, grading, and quality of unit and chapter exams. Key research findings for formative assessment cycle development will be presented.

Timothy Kanold, NCSM Past President, Chicago, IL

Session 251 General Strand 2 JW Marriott: 101-102 How do University Mathematics Educators, Teachers, and Leaders Create a Partnership for Changing Teaching Practices for Increasing Student Learning?

Our partnership between university mathematics educators, leaders, and teachers in a school district is grounded in research and practical wisdom using an inquiry process, protocols, and feedback cycles to study, refine, and build generative knowledge to implement effective mathematics teaching and learning practices.

Cathy J. Kinzer, New Mexico State University, Las Cruces, NM

Janice Bradley, New Mexico State University, Las Cruces, NM

Tuesday 2:45–3:45 (continued)

Session 252 Primary (PK-2) Strand 3 Marriott Downtown: Austin/Boston **Strategies for Embedding Mathematical Discourse Through Shared Storybook Reading**

This session presents initial results from a study on the effect of instructing early education teachers to embed mathematical discourse in shared storybook reading as a means of increasing "math talk" in the classroom. Discussion will focus on shared reading as a strategy to develop early numeracy skills of children.

Lynn Columba, Lehigh University, Bethlehem, PA

Session 253 Intermediate (3-5) Strand 2 JW Marriott: White River Ballroom J **Learning Mathematics Through Collaborative Action** Research

Action research is a powerful and engaging model of teacher learning that improves instruction. It can also provide teachers with a safe, supported atmosphere to explore mathematics instruction deeply. This session will share research findings and highlight strategies that will assist teacher leaders as they consider action research.

Ruth Dawson, Elementary Teachers' Federation of Ontario, Toronto, Ontario, Canada

Jane Bennett, Elementary Teachers' Federation of Ontario, Toronto, Ontario, Canada

Session 254

Strand 3

Middle (6–8) JW Marriott: White River Ballroom H-I Improve Mathematics Instruction for Students

with Learning Disabilities by Providing Powerful **Professional Development for Teachers**

Experience professional development activities that help teachers make their lessons more accessible to students with learning disabilities, while maintaining the integrity of the mathematics content. Learn about effective practices, and use a lesson planning process for aligning strategies with students' needs. Leave with professional development activities to use with teachers in your district.

Amy Brodesky, Education Development Center, Inc., Newton, MA

Session 255 Secondary (9–12) Strand 3 JW Marriott: 204-205 **Research, Instructional Practices, and Technology in Secondary Schools**

Research suggests instructional practices help or hinder student understanding, depending on their enactment. Participants will consider common practices, such as "launch" of a lesson, recording and discussing student work, and bringing closure in light of research and the potential of interactive technology to make these practices effective in enabling learning.

Gail Burrill, Michigan State University, East Lansing, MI

Session 256: ORIGO Education, Inc. Sponsor Showcase

PK-8

Marriott Downtown: Santa Fe

ORIGO Education: Your Source of Inspiration

James Burnett, ORIGO Education, Inc., St. Charles, MO Rob Nickerson, ORIGO Education, Inc., St. Charles, MO ORIGO Education inspires teachers to develop deep understanding of mathematics with an environment rich in language, thinking skills, games, and visual models. Come and be inspired by ORIGO's Australian president and senior author representing the newest source in innovative mathematics resources.

Session 257: Scholastic Inc. Technology Showcase

Grades 3-8 **Marriott Downtown: Lincoln** Using Adaptive Technology to Target Fluency and **Facility with Math Facts, Fractions, and Decimals**

Jaclyn Ruszala, Scholastic Inc., Waterton, MA Diane Glass, Scholastic Inc., New York, NY A student's career-readiness is influenced early in their learning. If students haven't mastered the critical foundations for algebra, it impacts their potential for success. Learn how to target struggling students and

effectively differentiate instruction using adaptive technology.

Tuesday 2:45-4:15 (Extended)

Session 258	General
Strand 2	JW Marriott: 201-202
Overcoming Resistance to	Change: On Track for
Equity	

Overcoming resistance to change is a major factor in forging effective mathematics programs, yet it is rarely discussed. Mathematics coaches and leaders often feel their efforts at improving instruction are being blocked or thwarted. This session provides insights on resistance and strategies that transform classrooms so that all students are successful.

Ted Hull, LCM: Leadership, Coaching, and Mathematics, NCSM Regional Director, Pflugerville, TX

Don Balka, Saint Mary's College, Retired, Notre Dame, IN **Ruth Harbin Miles**, LCM: Leadership, Coaching, and Mathematics, Madison, VA

Session 259 General Strand 2 JW Marriott: White River Ballroom B-C Ten Key Ideas for Designing High Quality Professional Development

Good professional development design is critical to achieving the goal of deepening teacher content knowledge, and both empirical research and insights of practitioners inform what good design entails. Ten key ideas are presented, dissected, debated, and applied toward the goal of designing the highest quality professional development.

Barbara Miller, Education Development Center, Newton, MA

Session 260 General Strand 2 JW Marriott: 103 Leading with Passion: Still No Compromise!... Four Years Later

What does passion for mathematics education look like? Four years ago we began this journey to "recharge the batteries" of site-based mathematics leaders so that they might have a greater impact on the teachers they work with daily. Join us in this discussion of lessons learned and plans for the future.

John Staley, Baltimore County Office of Mathematics, Baltimore, MD

Maria Everett, Baltimore County Public Schools, Baltimore, MD

Leslie Johnson, Baltimore County Public Schools, Baltimore, MD

Janice Siebenhaar, Baltimore County Public Schools, Baltimore, MD

Session 261 Strand 2

General JW Marriott: 104

Professional Learning Communities: PLC + You = Continuous Commitment to Student Learning

Professional Learning Communities (PLCs) can be an effective way to examine personal views about mathematics teaching and learning. In this safe environment, participants will explore two separate PLCs and discuss strengths and weakness of each. Finally, based on this experience, participants will compose their own outline.

Meghan Hearn, Howard County Public Schools, Ellicott City, MD

Chadd McGlone, Trinity School of Durham, Durham, NC

Session 262 Secondary (9–12) Strand 2 JW Marriott: White River Ballroom D Enhancing the Reasoning-and-Proving Content of Textbook Tasks: A Site for Teacher Professional Development

Reasoning-and-proving is a critical topic in secondary mathematics, yet recent analyses show that most textbooks provide few strong reasoning-and-proving tasks. This session presents strategies that can be used to modify textbook tasks to increase the reasoning-and-proving potential, compare modified tasks, and discuss how these strategies can be used in professional development.

Michael Steele, Michigan State University, East Lansing, MI Fran Arbaugh, The Pennsylvania State University, University Park, PA

Justin Boyle, University of Pittsburgh, Pittsburgh, PA

Caucuses, Tuesday 4:15–5:30

The Caucuses provide opportunities for all NCSM members' voices to be heard! Your NCSM Regional Director, as the Caucus facilitator, will share information on NCSM initiatives, national issues, and future events. Come network and celebrate regional success with fellow mathematics leaders. There will also be drawings for door prizes. We hope to see you there!

Session 263



JW Marriott: White River Ballroom F Central Region 1 Caucus Valerie Mills, NCSM Regional Director, Waterford, MI Illinois, Indiana, Kentucky, Michigan, Ohio

Session 264



JW Marriott: White River Ballroom A Central Region 2 Caucus Connie Schrock, NCSM Regional Director, Emporia, KS Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Wisconsin

Session 265

JW Marriott: White River Ballroom G Eastern Region 1 Caucus Mari Muri, NCSM Regional Director,

Mari Muri, NCSM Regional Director, Middletown, CT

Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont, Military State AE (Armed Forces Africa, Canada, Europe, and Middle East)

Session 266



JW Marriott: 101-102 Eastern Region 2 Caucus

Diana Kendrick, NCSM Regional Director, Upper Marlboro, MD Delaware, District of Columbia, Maryland, New Jersey, Pennsylvania, West Virginia

Session 267

JW Marriott: White River Ballroom B-C Southern Region 1 Caucus

Susan Birnie, NCSM Regional Director, Alexandria, VA

Bermuda, Florida, Georgia, North Carolina, Puerto Rico, South Carolina, Virginia, Virgin Islands, Military State AA (Armed Forces America)

Session 268



JW Marriott: White River Ballroom H-I Southern Region 2 Caucus Ted Hull, NCSM Regional Director, Pflugerville, TX Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, Texas

Session 269

JW Marriott: 104 Western Region 1 Caucus

Richard Seitz, NCSM Regional Director, Helena, MT Alaska, Arizona, Colorado, Idaho, Montana,

Nevada, New Mexico, Utah, Wyoming

Session 270



JW Marriott: White River Ballroom E Western Region 2 Caucus

Sara Munshin, NCSM Regional Director, Los Angeles, CA

California, American Samoa, Federated States of Micronesia, Guam, Marshall Islands, Northern Mariana Islands, Palau, Hawaii, Oregon, Washington, Military State AP (Armed Forces Pacific)

Session 271





JW Marriott: White River Ballroom J Canadian Regional and International Attendee Caucus

Donna Karsten, NCSM Regional Director, Halifax, Nova Scotia, Canada

Denise Walston, NCSM Second Vice President, Norfolk, VA

Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Quebec, Saskatchewan, Yukon and anyone from outside the United States and Canada

Session 272



JW Marriott: 103 NCSM Past Presidents Caucus Larry Bradsby, NCSM Past President, Lakewood, CO NCSM Past Presidents



NCSM thanks ETA/Cuisenaire for their generosity in providing snacks for the caucuses.

Visit ETA/Cuisenaire in the sponsor display area at booth 316 or at www.etacuisenaire.com

Tuesday Reception

Session 273

Sponsored by Pearson

5:45 PM-7:00 PM (ticket required)

Marriott Downtown: Marriott Ballroom

PEARSON

Pearson is an international company with world-wide businesses in education, business information, and consumer publishing. The company helps children and adults to learn, business people to make good decisions, and readers to enjoy a good book.





Visit Pearson at booth 304 in the sponsor display area and at www.Pearson.com.

Notes	

Program Summary Information for Wednesday, April 13, 2011

See page 59 for Conference Strand descriptions.

	7:30–8:30: Wednesday	Breakfast (ticket required), sp	7:30—8:30 : Wednesday Breakfast (ticket required), sponsored by America's Choice, JW Marriott: White River Ballroom	W Marriott: White River Ballro	шо	
	JW Marriott 101–102 (100)	JW Marriott 103 (50)	JW Marriott 104 (50)	JW Marriott 201–202 (100)	JW Marriott 203 (74)	JW Marriott 204–205 (100)
8:45	Session 307 Intermediate (3–5), Strand 3 Adams, The Lastinger STEM Initiative: Job-Embedded Professional Development for Mathematics and Science Teachers	Session 314 General, Strand 2 Neihaus , The Intel Math Program and K–8 Teacher Content Knowledge in Mathematics	Session 316 Intermediate (3–5), Strand 3 <i>Pierson, Johnson, Proven</i> <i>Besearch-Based Strategies</i> <i>Supporting Assessment and</i> <i>Instruction on Multiplication,</i> <i>Division, and Fractions for</i> <i>Response to Intervention</i> (<i>Rti</i>)	Session 315 General, Strand 3 General, Strand 3 Hamada, Mikles, Student- Centered Secondary Mathematics Classrooms: How to Implement Change as You Support Teachers' Success and Student Achievement	Session 308 Secondary (9–12), Strand 2 McDougal, Caref, Clark , Transforming Teacher Culture and Practice by Coupling Content Workshops, Lesson Study, and Regular Tearn Meetings	
9:45 10:00	Session 325					Session 324
10:15	Middle (6–8), Strand 4 Greenhaus, Middle School Mathematics Can Be Dynamic Using Sketchpad					Intermediate (3–5), Strand 3 <i>Russell, Schifter, Bastable,</i> <i>Building Elementary</i> <i>Strudents' and Teachers'</i>
	to Engage and Increase					Understanding of Proof
10:45 11-00	טווטפו אנמומוווץ	Session 331 Intermediate (3–5), Strand 3 Trow, Rebuilding Students'	Session 328 General, Strand 2 Lynch, Using NCTIM's	Session 332 Intermediate (3–5), Strand 3 <i>Franco, Ramirez, "Math</i>		
		Cognitive Structures for	Freely Available Reflection	Pathways and Pitfalls"		
11:15	Session 342 Middle (G–8), Strand 2 Alejandre, Miller, Developing Leadership in Our Mathematics Community: Identifying and Supporting Teacher Leaders	Understanding Mathematics	Guides to Provide Professional Development to Mathematics Learning Communities	Connect Mathematics Concepts and Language Development	Session 339 Intermediate (3–5), Strand 4 Zocchi, Potter, SCRATCH Brings MATH to Life!	Session 336 General, Strand 2 Sutton, Burroughs, Heidema, Mitchell, Developing and Supporting Consumers of Coaching: Expectations and Responsibilities
12:15						
	12:30–2:30: Session 34	44, Wednesday Luncheon (ticke	12:30–2:30: Session 344, Wednesday Luncheon (ticket required), sponsored by CASIO AMERICA, INC. and Houghton Mifflin Harcourt, JW Marriott: White River Ballroom	O AMERICA, INC. and Houghton	n Mifflin Harcourt, JW Marriott	: White River Ballroom
2:45	Session 347 Leonard, Toward Pedagogies of Teaching for Social Justice	Session 346 Restivo, Enhance Students' Problem Solving Skills Using the Mathematical Olympiads for Elementary and Mirddle Schools	Session 348 McGione, Barta, Walking Our Talki NCSM PRIME Strategies for Mathematics Education Leaders to Promote and Achieve Furity	Session 352 <i>Toncheff</i> , <i>Emerging</i> <i>Leaders: Focus Question/</i> <i>Answer Time</i>		Session 353 Franco, Edwards, Equity in Mathematics Education: TODOS
		(MOEMS)		All Wednesday 2:45–4:00 sessions are special interest groups.	Wednesday 2:45–4:00 sessions are special interest groups.	
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	Downtown Marnott: Austin/Boston (40)	Downtown Marriott: Lincoln (66)	Downtown Marriott: Marriott Ballroom 1 (60)	Downtown Marriott: Marriott Ballroom 2-3 (100)	Downtown Marriott: Marriott Ballroom 4 (60)	Downtown Marriott: Marriott Ballroom 5 (510)
8:45	Session 305 General, Strand 1 Schrock, Seitz, Great Tasks for Leading the Common Core State Standards	Session 312: Houghton Mittlin Harcourt Sponsor Showcase PK-12 Pavlovich, Success Is the Intersection Where Opportunity and Preparation Meet	Session 310 Secondary (9–12), Strand 1 Wootton, Mikles, Assessment: Why Bother?	Session 317 Secondary (9–12), Strand 3 Sylianides, Smith, The Use of Narrative Cases to Develop Teachers' Knowledge About Reasoning-and-Proving	Session 313 General, Strand 3 Papakonstantinou, Parr , A Blueprint for Student Success on High-Stakes Tests: A Plan from the Rice University School Mathematics Project	Session 302 General, Strand 1 <i>Burkhardt, Hopp, Panel:</i> Reshaping Assessment
9:45				-		
10:00	Session 322 Primary (PK-2), Strand 3	Session 327: America's Choice Sponsor Showcase	Session 320 General, Strand 1			
2	Jayon Cur, Sowing Discipline Problems Using Academic, Social, Learning, and Emotional	Daro , The Common Core State Standards: Getting Ahead of the Curve for	Fruster, O pren, A Formative Assessment System That Really Works			
10:45	Empowerment tor Elementary, Middle, and High School Classrooms	Implementation		Session 329 General, Strand 2 Cameron, Stabic	Session 330 General, Strand 3 Mavfield-Indram Coates	
200				Berkowitz, lacoviello,	Designing Equitable	
11:15	Session 341 Middle (G–8), Strand 3 Barnes, Wray, Providing Professional Development to Meet Common Core State Standards		Session 337 General, Strand 2 Wohlhuter, Roth McDuffie, Breyfogle, Supporting Curricular Reasoning as a Way of Developing Effective Teachers	Assessing the Effect of Coaching: Using Video Journals to Document Coach and Teacher Growth over Time	Lessons That Positively Impact Students ' Mathematics Identity	Session 333: Major Session General Deshler, Moving the Mathematics Achievement Needle for Struggling Learners
12:15						
	12:30–2:30: Session 3-	44, Wednesday Luncheon (tick	12:30–2:30: Session 344, Wednesday Luncheon (ticket required), sponsored by CASIO AMERICA, INC. and Houghton Mifflin Harcourt, JW Marriott: White River Ballroom	IO AMERICA, INC. and Houghto	n Mifflin Harcourt, JW Marriott	: White River Ballroom
2:45	Session 357 Forgione, Defining Assessment Targets for the 21st Century GED Mathematics Assessment		Session 355 Sheffield, Improving Student Achievement by Expanding Opportunities for Mathematically Promising Students: A New NCSM Position Paper	Session 350 Bezuk, Strutchens, Association of Mathematics Teacher Educators (AMTE)	Session 354 Norris , Educational Consultants: A Networking Opportunity	
				All Wednesday 2:45- sessions are spec interest groups.	All Wednesday 2:45–4:00 sessions are special interest groups.	
4:00						

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7:30–8:30: Wednesday Breakfast (ticket required), sponsored by America's Choice, JW Marriott: White River Ballroom

	Downtown Marriott: Marriott Ballroom 6 (510)	Downtown Marriott: Marriott Ballroom 7 (60)	Downtown Marriott: Marriott Ballroom 8-9 (100)	Downtown Marriott: Marriott Ballroom 10 (60)	Downtown Marriott: Santa Fe (66)
8:45	Session 303 General, Strand 1 <i>Burns, Learning from</i> <i>Students' Written Work:</i> <i>A Guide for Professional</i> <i>Development, Grades K–6</i>	Session 304 General, Strand 2 <i>Birnie, West, Taking</i> <i>Coaching to the Systemic</i> <i>Level</i>	Session 306 Intermediate (3–5), Strand 2 Shaughnessy, Suzuka, Boerst, Jacobs, Developing Teaching Expertise @ Mathematics: Practice- Based Professional Development for Elementary Math Teachers	Session 306 Session 309 Intermediate (3–5), Strand 2 Secondary (9–12), Strand 3 Shaughnessy, Suzuka, Baching Expertise @ Knicl, Hill, Leadership: It Mathematics: Practice- Based Professional Takes a Team Development for Elementary Math Teachers	Session 311: MIND Research Institute Sponsor Showcase General Wisbet, Engage and Inspire: How the Right Technology Tools Can Transform Mathematics Teaching and Learning
2140					
10:00	Session 318 General, Strand 3 General, Strand 3 Kepner, The Common Correstes Standards and Evolving Assessment Consortia — History, Status,	Session 323 Session 319 Intermediate (3–5), Strand 2 Session 319 Intermediate (3–5), Strand 2 General, Strand 2 Echols, Cunningham, Ramirez, Confer, Cameron, Developing Co- Voices, One Purpo Teaching Models to Link the Principals, Coaching Practices of Special and and Teachers Unit	Session 319 General, Strand 2 Ramirez, Confer, Three Voices, One Purpose: Principals, Coaches, and Teachers United in	Session 321 General, Strand 20 Mills, Munshin, Activating the CCSS for Math Practice Through NCSM's Professional Development	Session 326: Pearson Sponsor Showcase General Lehnertz, Pearson's New Digits Program—Where Math Clicks!
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11:15		Session 338	Session 340	Session 335	Session 343: Texas	
	General, Strand 2 Primary (PK–2), Strand	Primary (PK-2), Strand 3	Intermediate (3–5), Strand 2 General, Strand 2	General, Strand 2	Instruments Sponsor	
	West, Kise, Addressing	Forbringer, Response	Dixon, Transforming	Zimmermann, Jain, How	Showcase	
	Difficult Issues in Coaching	to Intervention (Rtl):	Teaching: Examples That	to Achieve the Vision of the	General	
	Conversations	Mathematics Interventions	Support Taking Teachers	NCSM PRIME Teaching and Bernabei-Rorrer, Airhart,	Bernabei-Rorrer, Airhart,	
		for Struggling Learners		Learning Principle: From	The TI MathForward	
				Words to Actions	Program Experience, an	
					Algebra-Readiness Program	
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12:30–2:30: Session 344, Wednesday Luncheon (ticket required), sponsored by CASIO AMERICA, INC. and Houghton Mifflin Harcourt, JW Marriott: White River Ballroom 12:15

All Wednesday 2:45-4:00 sessions are special interest groups.	
Session 351 Session 351 <i>Charischek, Weksler,</i> Math <i>Charischek, Weksler,</i> Math <i>Collaborative Teaching and</i> <i>Learning Mathematics with</i> <i>Internet-Based Tools</i>	
Session 349 Nikula, Gorman, Lesson Study Networking: Join Practitionens, Researchers, and Leaders in Sharing Lesson Study Resources and Questions	
Session 356 Session 349 Newsom, Hudson Hull, Session 349 Urban Mathematics Study Networking: Join Urban Mathematics Study Networking: Join Leadership Network (UMLN) Practitioners, Researchers, and Leaders in Sharing Forum Lesson Study Resources and Questions and Questions	
2:45 Session 345 General, Strand 3 General, Strand 3 <i>Weiss,</i> NCSM/NCTM Special Interest Group Session: Understanding the Influence of the Common Core State Standards in Mathematics: What Do We Need to Know and When Do We Need to Know It?	
2:45	4:00

Wednesday Sessions by Strand

Strand 1: Assessment of Students/ Assessment of Teaching

Session	Location	Time
302	Marriott Downtown: Marriott Ballroom 5	8:45-9:45
303	Marriott Downtown: Marriott Ballroom 6	8:45-9:45
305	Marriott Downtown: Austin/Boston	8:45-9:45
310	Marriott Downtown: Marriott Ballroom 1	8:45-9:45
320	Marriott Downtown: Marriott Ballroom 1	10:00-11:00

Strand 2: Developing Coaches/ Developing Teachers

Session	Location	Time
304	Marriott Downtown: Marriott Ballroom 7	8:45-9:45
306	Marriott Downtown: Marriott Ballroom 8-9	8:45-9:45
308	JW Marriott: 203	8:45-9:45
314	JW Marriott: 103	8:45-10:15
319	Marriott Downtown: Marriott Ballroom 8-9	10:00-11:00
321	Marriott Downtown: Marriott Ballroom 10	10:00-11:00
323	Marriott Downtown: Marriott Ballroom 7	10:00-11:00
328	JW Marriott: 104	10:45-12:15
329	Marriott Downtown: Marriott Ballroom 2-3	10:45-12:15
334	Marriott Downtown: Marriott Ballroom 6	11:15-12:15
335	Marriott Downtown: Marriott Ballroom 10	11:15-12:15
336	JW Marriott: 204-205	11:15-12:15
337	Marriott Downtown: Marriott Ballroom 1	11:15-12:15
340	Marriott Downtown: Marriott Ballroom 8-9	11:15-12:15
342	JW Marriott: 101-102	11:15-12:15

Strand 3: Teaching & Learning

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Session	Location	Time
307	JW Marriott: 101-102	8:45-9:45
309	Marriott Downtown: Marriott Ballroom 10	8:45-9:45
313	Marriott Downtown: Marriott Ballroom 4	8:45-10:15
315	JW Marriott: 201-202	8:45-10:15
316	JW Marriott: 104	8:45-10:15
317	Marriott Downtown: Marriott Ballroom 2-3	8:45-10:15
318	Marriott Downtown: Marriott Ballroom 6	10:00-11:00
322	Marriott Downtown: Austin/Boston	10:00-11:00
324	JW Marriott: 204-205	10:00-11:00
330	Marriott Downtown: Marriott Ballroom 4	10:45-12:15
331	JW Marriott: 103	10:45-12:15
332	JW Marriott: 201-202	10:45-12:15
338	Marriott Downtown: Marriott Ballroom 7	11:15-12:15
341	Marriott Downtown: Austin/Boston	11:15-12:15
345	Marriott Downtown: Marriott Ballroom 6	2:45-4:00

Strand 4: STEM (Science, Technology, Engineering, & Mathematics)

Session Location Time 325 JW Marriott: 101-102 10:00-11:00 339 JW Marriott: 203 11:15-12:15		5	•
JW Marriott: 101-102 JW Marriott: 203	Session	Location	Time
JW Marriott: 203	325	JW Marriott: 101-102	10:00-11:00
	339	JW Marriott: 203	11:15-12:15

Notes	

Wednesday Breakfast

Session 301

Sponsored by America's Choice

7:30 AM-8:30 AM (ticket required)

JW Marriott: White River Ballroom

America's Choice's has researched the highest performing education systems in the world to create a set of internationallybenchmarked solutions tailored to American schools. The company's comprehensive designs and instructional systems for mathematics and literacy have been implemented in more than a thousand schools across the country, helping over a million students reach higher standards.





The Common Core State Standards: The Latest in a Nutshell

Phil Daro, America's Choice, Washington, DC

Phil Daro, a member of the Mathematics Work Group for the Common Core State Standards and a senior fellow at America's Choice, will share his thoughts on how to implement the Common Core State Standards and prepare for the new assessments to be administered in 2014–2015.

Phil is a senior fellow for mathematics at America's Choice, where he focuses on programs for students who struggle in mathematics and algebra. He also directs the Strategic Education Research Partnership (SERP)-San Francisco, an alliance of the University of California, Stanford University, and others with

the San Francisco Unified School District. This partnership focuses on strengthening the mathematics and science learning of students learning English or developing academic English. The group also develops research agendas and projects that address priorities identified in the school district.

Phil has served as a director, an adviser, and a consultant for a wide range of mathematics-education projects. The most extensive and intensive engagements include NAEP Validity Studies, Achieve, Inc., FAM (Foundations of Mathematics) program development for America's Choice, the Balanced Assessment Project (co-director), Mathematics Assessment Resources (MARS), the El Paso Collaborative (consultant), Pittsburgh School District, Los Angeles Unified School District, New York City Board of Education, the state of Georgia, and the New Standards Project. From the mid 1980s until the 1990s, Phil was the state director of the California Mathematics Project for the University of California. He has also worked with reading and literacy experts and panels on problems related to academic-language development, especially in mathematics classroom discourse.

Visit America's Choice at booth 408 in the sponsor display area or at www.Americaschoice.org.

Submit a proposal to speak at the 2012 Annual Conference in Philadelphia. See page 81 for details. Look for an email next week inviting you to complete the Online Conference Feedback Survey.

Wednesday 8:45-9:45

Session 302 General Strand 1 Marriott Downtown: Marriott Ballroom 5 **Panel: Reshaping Assessment**

The power of formative assessment for improving student learning is well established – provided it is well done. The associated need for professional development is substantial. The influence of summative assessment on what happens in most classrooms is clear. The Smarter Balanced Assessment Consortium is one of two multi-state assessment partnerships that received federal funding to development a next generation assessment system to measure the Common Core State Standards.

The panel will discuss the status of the goals and current work on developing assessments, formative assessment lessons, professional development support modules, and prototype summative tests and how they may be used. In addition, they will describe and illustrate Formative Assessment Lessons, Professional Development Support Modules, and Prototype Summative Tests, as well as how they may be used.

Hugh Burkhardt, Mathematics Assessment Project, Shell Centre for Mathematical Education at the University of Nottingham, Nottingham, UK

Dan Hopp, SMARTER Balanced Assessment, Maine Department of Education, Augusta, ME

Moderator: Valerie Mills, NCSM Regional Director

Session 303 General Strand 1 **Marriott Downtown: Marriott Ballroom 6** Learning from Students' Written Work: A Guide for Professional Development, Grades K-6

Too often, students see the goals of mathematics assignments to "do the page" rather than to "do the math." This session presents guidelines for assignments that provide students opportunities to reveal how they reason, and suggests ways for using student work in professional development to help teachers inform their instruction.

Marilyn Burns, Math Solutions Professional Development, Sausalito, CA

Session 304 General Strand 2 **Marriott Downtown: Marriott Ballroom 7 Taking Coaching to the Systemic Level**

Learn how coaches create a cascading effect on practice by cultivating the capacity of teacher leaders, developing lab site classrooms, focusing the lens of principals on evidence of student and adult learning, and increasing the understanding of truly effective instruction. Video clips will be used and handouts will be provided.

Susan Birnie, NCSM Regional Director, Alexandria Public Schools, Alexandria, VA

Lucy West, Metamorphosis Teaching Learning Communities, New York, NY

Session 305 Strand 1 Marriott Downtown: Austin/Boston

Great Tasks for Leading the Common Core State Standards

"Great Tasks" has been updated and revised to reflect the Common Core State Standards. In this session, teachers, coaches, specialists, and leaders will explore how to implement open tasks that support the infusion of formative assessment into classrooms, districts, and state levels.

Connie Schrock, NCSM Regional Director, Emporia State University, Emporia, KS

Richard Seitz, NCSM Regional Director, Helena High School, Helena, MT

Session 306

Intermediate (3–5)

General

Strand 2 **Marriott Downtown: Marriott Ballroom 8-9 Developing Teaching Expertise @ Mathematics: Practice-Based Professional Development for Practicing Elementary Mathematics Teachers**

Presenters share a distinctive form of web-based professional development materials for elementary mathematics teachers and intending mathematics specialists that integrate core elements of professional learning, and that ground learning opportunities in teaching practice. Session participants explore these core elements and discuss the challenges involved in facilitating practice-based professional development.

Meghan Shaughnessy, University of Michigan, Ann Arbor, MI Kara Suzuka, University of Michigan, Ann Arbor, MI Timothy Boerst, University of Michigan, Ann Arbor, MI Judith Jacobs, University of Michigan, Ann Arbor, MI

Session 307 Strand 3

Intermediate (3–5) JW Marriott: 101-102

The Lastinger STEM Initiative: Job-Embedded Professional Development for Mathematics and Science Teachers

The Lastinger STEM Initiative, led by the presenter, provides a comprehensive job-embedded professional development experience for mathematics and science teachers in high-need, low-resourced middle and high schools. The initiative includes five primary components: professor in residence, job-embedded graduate degree, summer residential experience, visiting scholars, and fellows program.

Thomasenia Adams, University of Florida, Gainesville, FL

Session 308 Strand 2

Secondary (9–12) JW Marriott: 203

Transforming Teacher Culture and Practice by Coupling Content Workshops, Lesson Study, and Regular Team Meetings

This presentation provides an early report on the progress of a university-school partnership designed to help teachers at three Chicago high schools change mathematics instruction to meet students' needs. By using lesson study and regular team meetings to reinforce content-focused professional development, the project supports transformation of the professional culture at each school.

Thomas McDougal, DePaul University, Chicago, IL Carol Caref, Chicago Vocational Career Academy, Chicago, IL Lydia Clark, Chicago Vocational Achievement Academy, Chicago, IL

Wednesday 8:45-9:45 (continued)

Session 309	Secondary (9–12)
Strand 3	Marriott Downtown: Marriott Ballroom 10

Leadership: It Takes a Team

District curriculum coordinators will share how using the NCSM PRIME Leadership Framework and Educational Development Center's (EDC) Secondary Lenses on Learning shifted our district to a larger community of mathematics leaders and problem solvers.

Leslie Knicl, Champaign Unit 4 Schools, Champaign, IL Polly Hill, Champaign Unit 4 Schools, Champaign, IL

Session 310 Secondary (9–12) Strand 1 Marriott Downtown: Marriott Ballroom 1

Assessment: Why Bother?

With students taking so many high-stakes tests, why should a mathematics teacher use valuable class time testing what is being done in class? With the right type of assessment, however, students can actually learn. Participants will look at the different assessments with an eye toward what will promote student learning.

Karen Wootton, College Preparatory Mathematics, CPM Educational Program, Sacramento, CA

Chris Mikles, College Preparatory Mathematics, CPM Educational Program, Sacramento, CA

Session 311: MIND Research Institute Sponsor Showcase

PK-12

Marriott Downtown: Santa Fe

Engage and Inspire: How the Right Technology Tools Can Transform Mathematics Teaching and Learning

Nigel Nisbet, MIND Research Institute, Santa Ana, CA Discover the MIND Research Institute's research-based ST Math Program, where students learn mathematics visually and conceptually. Students become successful problem solvers playing Spatial Temporal computer games that start purely visually and then gradually introduce symbols and language.

Session 312: Houghton Mifflin Harcourt Sponsor Showcase

PK-12

Marriott Downtown: Lincoln

Success Is the Intersection Where Opportunity and Preparation Meet

Meaghan Pavlovich, Houghton Mifflin Harcourt, Wilmington, MA

The Common Core State Standards are the opportunity, so how do we prepare? The new standards will impact current practices in teaching and learning. As leaders, it is our responsibility to assess the needs of our teachers, students, and community and prepare for the Common Core State Standards.

Wednesday 8:45–10:15 (Extended)

Session 313 General Strand 3 Marriott Downtown: Marriott Ballroom 4 A Blueprint for Student Success on High-Stakes Tests: A Plan from the Rice University School Mathematics Project

This session describes the development and implementation of a year-long plan to prepare students for high-stakes tests using stems from released standardized tests. Error analysis, remediation plans, test-taking strategies, and test-day tips will be discussed. Attendees will create interventions based on stems from several standardized tests.

Anne Papakonstantinou, Rice University, Houston, TX Richard Parr, Rice University, Houston, TX

Session 314 General Strand 2 JW Marriott: 103 The Intel Math Program and K–8 Teacher Content Knowledge in Mathematics

Intel Math is an 80-hour professional development program for K–8 teachers in mathematics. The course is based in problem solving, and focuses on the main themes of the K–8 curriculum. We will discuss the program, its strategy, and the evaluation reports from the past three years.

Aubrey Neihaus, The Institute for Mathematics and Education at the University of Arizona, Tucson, AZ

Session 315 Strand 3

General JW Marriott: 201-202

Student-Centered Secondary Mathematics Classrooms: How to Implement Change as You Support Teachers' Success and Student Achievement

A key finding in the research is that student-centered classrooms positively impact student achievement. What does that really look like in a secondary mathematics classroom? How do you implement this? What are the benefits and the pitfalls to avoid? How will you, as the administrator, recognize a truly student-centered classroom?

Lori Hamada, College Preparatory Mathematics, CPM Educational Program, Sacramento, CA

Chris Mikles, College Preparatory Mathematics, CPM Educational Program, Sacramento, CA

Wednesday 8:45-10:15 (continued)

Session	316				Intermediate (3–5)
Strand	3				JW Marriott: 104
		-	-		

Proven Research-Based Strategies Supporting Assessment and Instruction on Multiplication, Division, and Fractions for Response to Intervention (Rtl)

Research-based strategies related to formative assessment and differentiated instruction will be applied to NCTM Curriculum Focal Points and Common Core State Standards. Lessons using manipulatives, games, and vocabulary that integrate basic skills and problem solving will be presented. Appropriate for special needs and ELL students. Participants will receive handouts of activities and research.

Caryl Pierson, Math Teachers Press, Inc., Minneapolis, MN **Amy Johnson**, Math Teachers Press, Inc., Minneapolis, MN

Session 317 Secondary (9–12) Strand 3 Marriott Downtown: Marriott Ballroom 2-3 The Use of Narrative Cases to Develop Teachers' Knowledge About Reasoning-and-Proving

In this session, participants will engage in a discussion and analysis of a narrative case. This case is the first in a series of cases and other materials that comprise a practice- and research-based curriculum designed to develop teachers' mathematical and pedagogical knowledge related to reasoningand-proving in secondary school mathematics.

Gabriel Stylianides, University of Oxford, Oxford, UK **Margaret Smith**, University of Pittsburgh, Pittsburgh, PA

Wednesday 10:00-11:00

Session 318

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General

Strand 3 Marriott Downtown: Marriott Ballroom 6 The Common Core State Standards and Evolving Assessment Consortia—History, Status, and WHAT ARE THE NEXT STEPS?

For two years, the standards and assessment movements have been dominated by political entities whose approach differs strikingly from that of the NCTM professional organization's effort started in the 1980's. Learn about this new process, including current involvement efforts and NEXT STEPS for NCTM, NCSM, and other professional teacher organizations.

Henry Kepner, University of Wisconsin-Milwaukee, Milwaukee, WI

Session 319 General Strand 2 Marriott Downtown: Marriott Ballroom 8-9 Three Voices, One Purpose: Principals, Coaches, and Teachers United in Mathematics Success

When the mathematical thoughts and voices of teachers, coaches, and leaders work in concert with each other, children will excel in mathematics. This session will take its participants along a journey that an underperforming school traveled to reach a 10-year sustainable level of excellence in mathematics.

Marco Ramirez, Associates for Educational Success, Tucson, AZ

Christine Confer, Associates for Educational Success, Tucson, AZ

Session 320GeneralStrand 1Marriott Downtown: Marriott Ballroom 1A Formative Assessment System That Really Works

How does a large K–8 urban school improve mathematics instruction and student achievement for all students? Come and learn how your school can benefit from this two-year implementation study that has resulted in increased student achievement on classroom-based formative assessments and district benchmark tests.

Lee Ann Pruske, Milwaukee Public Schools, Milwaukee, WI Kim O'Brien, Milwaukee Public Schools, Milwaukee, WI

Wednesday 10:00-11:00 (continued)

Session 321	
Strand 2	Marriott Downtown: Marriott I

Strand 2 Marriott Downtown: Marriott Ballroom 10 Activating the Common Core State Standards for Mathematical Practice Through NCSM's Professional Development Model That Incorporates the Inside Mathematics Website Materials

NCSM, in collaboration with the Noyce Foundation-sponsored Inside Mathematics website, has developed a series of PowerPoint presentations showing how the Standards for Mathematical Practice can be implemented at various grade levels. Participants will have a hands-on experience that will include high cognitive tasks, re-engagement with the tasks, and a discussion of task implementation.

Valerie Mills, NCSM Regional Director, Oakland Schools, Waterford, MI

Sara Munshin, NCSM Regional Director, Los Angeles, CA

Session 322 Primary (PK–2) Strand 3 Marriott Downtown: Austin/Boston Solving Discipline Problems in Mathematics Class Using Academic, Social, Learning, and Emotional Empowerment for Elementary, Middle, and High School Classrooms

Sometimes the most difficult problems to solve in mathematics class are the discipline problems! In this session, we will analyze specific discipline problems in elementary, middle, and high school mathematics classrooms. We will explore ways to solve these problems using four types of student empowerment—academic, learning, social, and emotional.

Jennifer Taylor-Cox, Montgomery County Public Schools, Silver Spring, MD

Session 323Intermediate (3–5)Strand 2Marriott Downtown: Marriott Ballroom 7Developing Co-Teaching Models to Link the Practicesof Special and General Educators

Interactions between special and general educators are rare and often difficult. To help foster collaboration, Aurora Public Schools developed a model of professional development that joined regular and special educators. Members of this collaborative used a co-planning/co-teaching model of professional development to challenge and transform each other's beliefs and practices.

Cherie Echols, Aurora Public Schools, Aurora, CO Jo Cunningham, Aurora Public Schools, Aurora, CO Antonia Cameron, Metamorphosis Teaching Learning Communities, New York, NY

Session 324 Strand 3

General

Intermediate (3–5) JW Marriott: 204-205

Building Elementary Students' and Teachers' Understanding of Proof

We will present examples, in the context of regular classroom arithmetic instruction, of how elementary students can engage in proving, what teacher learning is needed to provide such instruction to a range of learners, and how one group of teachers learned to integrate work on proof into their instruction.

Susan Jo Russell, TERC, Cambridge, MA

Deborah Schifter, Education Development Center, Newton, MA

Virginia Bastable, SummerMath for Teachers, South Hadley, MA

Session 325 Middle (6–8) Strand 4 JW Marriott: 101-102 Middle School Mathematics Can Be Dynamic! Using Sketchpad to Engage and Increase Understanding

Experience engaging, dynamic mathematics using the Geometer's Sketchpad. Help your middle schools' students see and experience number sense, algebra, geometry, and other middle school mathematics concepts by integrating technology effectively and efficiently. See how Sketchpad is a tool to increase students' mathematical understanding and achievement.

Karen Greenhaus, Key Curriculum Press, Emeryville, CA

Session 326: Pearson Sponsor Showcase

Middle (6–8) Marriott Downtown: Santa Fe Pearson's New Digits Program—Where Math Clicks!

Elizabeth Lehnertz, Pearson, Boston, MA

Pearson's new program uses the power of technology to bring best practices of teaching into the classroom. Learn about this exciting new program built for today's digital student, with all interactive whiteboard lessons, online homework and assessments, and automatic grading and reporting.

Session 327: America's Choice Sponsor Showcase

General

Marriott Downtown: Lincoln

The Common Core State Standards: Getting Ahead of the Curve for Implementation

Phil Daro, America's Choice, Washington, DC

Phil Daro, a member of the Mathematics Work Group for the Common Core State Standards, will discuss the impact of the Common Core on teaching and learning mathematics. This discussion will focus on implications for professional development and student resources as we help schools and classes prepare for the Common Core assessments to be administered in 2014–2015.

Wednesday 10:45–12:15 (Extended)

Session 328 General Strand 2 JW Marriott: 104 Using NCTM's Freely Available Reflection Guides to Provide Professional Development to Mathematics Learning Communities

Reflection Guides for NCTM journals provide teacher leaders and coaches with a rich resource for professional development. A motivating article from Mathematics Teaching in the Middle School, "Using Students' Work as a Lens on Algebraic Thinking," by Driscoll and Moyer, will be the focus to model a professional development session for teachers.

Monique Lynch, NCTM, Reston, VA

Session 329

General

Strand 2 Marriott Downtown: Marriott Ballroom 2-3 Assessing the Effect of Coaching: Using Video Journals to Document Coach and Teacher Growth over Time

What evidence is there that coaching actually impacts and changes teacher practice? In this session, we will use video journals to document coach and teacher growth over time, share tools developed to document that growth, and provide artifacts of student learning directly impacted by changes in practice.

Antonia Cameron, Metamorphosis Teaching and Learning Communities, New York, NY

Stephanie Slabic, Math in the City, New York, NY Naomi Berkowitz, NYC DOE, PS 134, New York, NY Danielle Iacoviello, NYC DOE, PS 503, Brooklyn, NY

Session 330 General Strand 3 Marriott Downtown: Marriott Ballroom 4 Designing Equitable Lessons That Positively Impact Students' Mathematics Identity

The pedagogical strategies a teacher utilizes when designing lessons greatly impacts how students see themselves as mathematics learners. Participants will gain information about the development of a student's mathematics identity, and experience activities that enable teachers to provide students from diverse backgrounds opportunities to demonstrate their mathematics understanding.

Karen Mayfield-Ingram, University of California Berkeley, EQUALS, Berkeley, CA

Grace Coates, University of California Berkeley, EQUALS, Berkeley, CA

Session 331 Strand 3 Rebuilding Students' Cogn

Intermediate (3–5) JW Marriott: 103

Rebuilding Students' Cognitive Structures for Understanding Mathematics

There is a basic knowledge core for mathematics that forms the basis for decoding mathematics. Uncover what everyone is concerned about covering to reveal the core structure and connectivity of mathematics. The focus is on helping students make sense of what they've been taught, rather than on reteaching missed skills/concepts.

Marilyn Trow, Scholastic Inc, New York, NY

Session 332Intermediate (3–5)Strand 3JW Marriott: 201-202"Math Pathways and Pitfalls" Connect MathematicsConcepts and Language Development

The "Math Pathways and Pitfalls" program integrates best practices for learning mathematics concepts, developing mathematical language, and confronting common "pitfalls." The lessons and strategies have had a significant impact on student achievement for diverse student populations in urban, suburban, and reservation schools.

José Franco, WestEd, Oakland, CA Alma Ramirez, WestEd, Oakland, CA

Wednesday 11:15-12:15

Session 333: Major Session

General Marriott Downtown: Marriott Ballroom 5 Moving the Mathematics Achievement Needle for Struggling Learners

Donald Deshler, University of Kansas, Lawrence, KS Presider: Suzanne Mitchell, NCSM President-Elect As the expectations for increased achievement in mathematics and science grow, one of the greatest instructional challenges is figuring out ways to close the gap for those students who do not have the foundational competencies to respond to rigorous curricular demands. This presentation will discuss possible strategies of modifying school-wide structures to better accommodate academic diversity among students, as well as describe what research is pointing to as the most effective instructional practices.



Donald D. Deshler is the Williamson Family Distinguished Professor of Special Education and director of the Center for Research on Learning (CRL) at the University of Kansas. Deshler serves as an advisor on adolescent achievement to several organizations including the Carnegie Corporation of New York, National

Governor's Association, Alliance for Excellent Education, Council on Families and Literacy, and the U.S. State Department. He has presented on matters of educational policy regarding adolescent literacy to the nation's governors at the James B. Hunt Institute for Educational Leadership and Policy and has testified in Congress and several state legislatures on secondary school reform. Through the Aspen Institute, he has worked with members of Congress to shape policies addressing the challenges of high school reform.

Session 334 Strand 2

General Marriott Downtown: Marriott Ballroom 6 Addressing Difficult Issues in Coaching Conversations

How might a coach confront critical issues with teachers in ways that open possibilities and avoid shutting down conversations? This interactive session will address problematic moments in coaching, using case studies, role plays, video clips, and examples of coaching moves that differentiate for teacher sensitivities and belief systems.

Lucy West, Metamorphosis Teaching Learning Communities, New York, NY

Jane Kise, Differentiated Coaching Associates, LLC, Edina, MN

Session 335 Strand 2

General

Marriott Downtown: Marriott Ballroom 10 How to Achieve the Vision of the NCSM PRIME **Teaching and Learning Principle: From Words to** Actions

This workshop will present how lesson study is used with mathematics teachers to implement the NCSM PRIME Indicators for Teaching and Learning in order to bring rigor, meaning, and relevance to the teacher planning and student learning experience. The session will include sample lessons and participant interaction.

Gwen Zimmermann, Adlai E. Stevenson High School, Lincolnshire, IL

Darshan Jain, Adlai E. Stevenson High School, Lincolnshire, IL

Session 336 General Strand 2 JW Marriott: 204-205 **Developing and Supporting Consumers of Coaching: Expectations and Responsibilities**

Coaching is a collaborative process that is done with teachers, not to teachers, to increase teacher effectiveness and student achievement. Learn what you as a mathematics leader can do to develop and support teachers as good consumers of coaching by understanding the expectations and responsibilities for coaches and teachers.

John Sutton, RMC Research Corporation, Denver, CO Elizabeth Burroughs, Montana State University, Bozeman, MT Clare Heidema, RMC Research Corporation, Denver, CO Arlene Mitchell, RMC Research Corporation, Denver, CO

Session 337 General Strand 2 **Marriott Downtown: Marriott Ballroom 1** Supporting Curricular Reasoning as a Way of **Developing Effective Teachers**

Curricular reasoning includes the thinking processes teachers engage in when working with curriculum to plan, implement, and reflect on instruction. Our work with teachers generated approaches for school leaders to use in supporting teachers' curricular reasoning development. Participants will also share their ideas about helping teachers effectively use curriculum materials.

Kay Wohlhuter, University of Minnesota Duluth, Duluth, MN Amy Roth McDuffie, Washington State University Tri-Cities, Richland, WA

Lynn Breyfogle, Bucknell University, Lewisburg, PA

Wednesday 11:15–12:15 (continued)

Session 338	Primary (PK–2)
Strand 3	Marriott Downtown: Marriott Ballroom 7
Response to Interv	vention (Rtl): Mathematics
Interventions for S	truggling Learners

Are you trying to implement RtI math? We will discuss the What Works Clearinghouse's recommendations for using RtI to support students who struggle with mathematics. Participants will experience evidence-based intervention strategies, explore materials, hear ideas for organizing the classroom to provide differentiated support, and receive handouts containing references and resources.

Linda Forbringer, Southern Illinois University Edwardsville, Edwardsville, IL

Session 339	Intermediate (3–5)
Strand 4	JW Marriott: 203
CONTCUD CONTRACTOR INCO	

SCRATCH Brings MATH to Life!

Animation brings number sense, operations, geometry, integers, and Cartesian planes to life. SCRATCH, a new programming language, was integrated into our curriculum. Igniting interest in STEM, in both tech-poor and tech-rich elementary schools, is a priority. SCRATCH was developed at the Massachusetts Institute of Technology and is free!

Mary Zocchi, DC Public Schools - Capitol Hill Cluster School, Washington, DC

Ann Potter, Retired, Vienna, VA

Session 340Intermediate (3–5)Strand 2Marriott Downtown: Marriott Ballroom 8-9Transforming Teaching: Examples That SupportTaking Teachers from Dissonance to Depth

Teaching for depth is widely supported in the Common Core State Standards. However, what it means to teach for depth is elusive. Explore authentic, classroom-tested examples that contrast common teaching practices with practices that cultivate deep conceptual understanding creating disequilibrium that leads to necessary changes for teachers to teach for depth.

Juli Dixon, University of Central Florida, Orlando, FL

Session 341 Middle (6–8) Strand 3 Marriott Downtown: Austin/Boston Providing Professional Development to Meet Common Core State Standards

Leaders will examine a professional development prototype designed to provide a rich experience for one teacher or a group of teachers. The emergence of the Common Core State Standards coupled with decreased funding for professional development has created an opportunity for collaboration among school districts. See how one district responded.

Bill Barnes, Howard County Public School System, Ellicott City, MD

Jonathan Wray, Howard County Public School System, Ellicott City, MD

Session 342 Strand 2

Middle (6–8) JW Marriott: 101-102

Developing Leadership in Our Mathematics Community: Identifying and Supporting Teacher Leaders

Examine a model of professional development from the Math Forum @ Drexel that provides opportunities for teachers to build their understanding of mathematical concepts, explore ways to create similar experiences for students, and learn more about resources and support, enabling them to become and thrive as leaders in this community.

Suzanne Alejandre, Drexel University/The Math Forum, Philadelphia, PA

Ashley Miller, China Grove Middle School, China Grove, NC

Session 343: Texas Instruments Sponsor Showcase

Middle (6–8), Secondary (9–12) Marriott Downtown: Santa Fe The TI MathForward Program Experience, an Algebra-Readiness Program

Pamela Bernabei-Rorrer, Texas Instruments, Dallas, TX **Eva Airhart**, Texas Instruments, North Canton, OH Participants will engage in an interactive MathForward classroom that integrates the TI-Nspire handhelds and the TI-Navigator system. The program components will be highlighted, and research on the program's effectiveness at increasing student achievement in large urban districts will be shared.

Wednesday Lunch

Session 344 Sponsored by CASIO AMERICA, INC. and Houghton Mifflin Harcourt 12:30 PM-2:30 PM (ticket required) JW Marriott: White River Ballroom

CASIO creates electronic products such as calculators, dictionaries, pianos, digital cameras, and cash registers with innovative functions for use in today's educational settings. The company also provides professional development, support materials, down-loadable programs and the education rewards program for free products. This is consistent with CASIO's creed, "creativity and contribution."





Houghton Mifflin Harcourt, Microsoft's 2008 Education Partner of the Year, publishes textbooks, instructional technology, assessments, and other educational materials for students and teachers. HARCOURT The company also publishes an extensive line of reference works and fiction and non-fiction books.

Math-Busting with MythBusters!

Kari Byron and Grant Imahara, from the Discovery Channel's hit show MythBusters, will link scientific method and discovery-based learning to CASIO's new color graphing calculator PRIZM.



Electronics and radio-control specialist Grant Imahara is a former animatronics engineer and model maker for Industrial Light & Magic, where he worked on such movies as The Lost World: Jurassic Park, Star Wars: Episode 1—The Phantom Menace, and A.I.: Artificial Intelligence. In addition to operating R2-D2 (one of only a handful of official operators), Grant has

another claim to beloved-character fame: developing a custom circuit to cycle the Energizer Bunny's arm beats and ears at a constant rate, even serving as the bunny's driver and crew supervisor on numerous commercials.

A native of Los Angeles, Grant earned a bachelor of science degree in electrical engineering from the University of Southern California. He's also the author of the book, Kickin' Bot: An Illustrated Guide to Building Combat Robots. His own machine, Deadblow, is a former BattleBots champion.



Kari Byron has trained to be on MythBusters since she was a child. By the age of 5 she was experimenting on her sister and using dolls as crash-test dummies. After graduating from San Francisco State University and traveling the world, Kari began her career as a sculptor and painter, holding successful exhibitions at some of San Francisco's

leading galleries. Her sculpting skills and love for odd jobs soon led her into the field of model-making and toyprototyping, which led to a job with Jamie Hyneman at M5 Industries. It was at M5 that Kari got her big break with MythBusters. Kari brings a unique perspective to the show as an artist, a science chick and a working mom.

29th Annual Presentation of the Ross Taylor/ **Glenn Gilbert National Leadership Award**

Each year, the Ross Taylor/Glenn Gilbert National Leadership Award is presented in memory of two dedicated mathematics educators, Bennett "Ross" Taylor and Glenn Gilbert. Ross was a part of the heart and soul of NCSM for the past 4 decades, a "Leader of Leaders" in mathematics education, and a driving force behind the birth of NCSM. Glenn, a long time member of NCSM, was a mathematics teacher and leader from Boulder, Colorado who served as NCSM Treasurer for five years, from 1976 until his untimely death in 1981.

The Glenn Gilbert Award was first established in 1982 to honor its namesake and to provide a vehicle to annually recognize a person who exhibited the same kind of unique and dedicated contributions to mathematics education. In 1995, the name of the award was changed to the "Glenn Gilbert National Leadership Award" to further recognize Glenn's legacy and capture the respect and stature that the award symbolizes within the mathematics education community.

In 2009, the award was renamed the "Ross Taylor/Glenn Gilbert National Leadership Award" to further exemplify the prestige of this national recognition and to further distinguish

the unique dedication and contribution of its recipients. It is most fitting that this award should now bear the name of two mathematics educational giants, Ross Taylor and Glenn Gilbert.

Today, we recognize another individual who, like Ross and Glenn, has demonstrated leadership in and has made outstanding, unique, and dedicated contributions to the field of mathematics education.



/isit CASIO AMERICA, INC. at booth 504 and at www.casioeducation.com and Houghton Mifflin Harcourt at booth 416 and at www.hmhco.com.

Mark Driscoll 2010 Ross Taylor/ Glenn Glibert Awardee

Previous Ross Taylor/Glenn Gilbert Awardees

2010 Mark Driscoll

- 2009 Solomon Garfunkel
- 2008 James M. Rubillo
- 2007 Glenda T. Lappan
- 2006 L. Carey Bolster 2005 Charleen Mitchell
- DeRidder
- 2004 Irvin E. Vance
- 2003 Mary Laycock
- 2002 Miriam A. Leiva
- 2001 Margaret (Peg)
- Kenney 2000 Francis (Skip) Fennell
- 1999 F. Joe Crosswhite
- 1998 Robert B. Davis
- 1997 Franklin Demana and
- Bert Waits 1996 Marilyn Burns 1995 James D. Gates 1994 Zalman P. Usiskin 1993 Dale Seymour 1992 Iris M. Carl 1991 Dorothy S. Strong 1990 Stanley J. Bezuszka 1989 David R. Johnson 1988 Tom Rowan 1987 Al Shulte 1986 Shirley Frye 1985 Ross Taylor 1984 Alexander Tobin 1983 John Del Grande

An NCSM Tribute to Thomas E. Rowan



On January 23, 2011, NCSM lost a long-time mathematics education leader, NCSM Past President, and Glenn Gilbert Awardee, Thomas E. Rowan. Tom was a mathematics educator who influenced the field at the classroom, district and national level as a state and district mathematics supervisor, university professor, researcher and author.

In 1957, Tom earned a bachelor's degree in science education from what is now known as Frostburg University, Maryland, and soon began his life-long career in education as a "junior high" mathematics and science teacher in Montgomery County, Maryland. After 5 years he became a full-time graduate assistant at the University of Maryland, earning an MA in mathematics education in 1964. Tom then joined Maryland State Department of Education where he was the State Supervisor of Mathematics for 8 years. While working as the State Supervisor, Tom completed his PhD in mathematics education at the University of Maryland. He then accepted a position as Coordinator of Elementary Mathematics for Montgomery County Public Schools, Maryland, where he worked for 22 years. Not one to retire, Tom worked as an adjunct professor and lecturer at the University of Maryland, McDaniel College, and Johns Hopkins University and consulted with the American Institutes for Research in Washington, DC, where he continued to influence the work of pre-service and in-service mathematics educators.

Tom had an active professional career, serving as an advisor/consultant/author for curriculum and assessment efforts as diverse as the School Mathematics Study Group (SMSG) at Stanford University, the first National Assessment of Educational Progress, and NCTM's *Curriculum and Evaluation Standards for School Mathematics*, both serving as one of the writers of the K-4 grade band of the *Standards* and then as chairperson of NCTM's Task Force defining the NCTM *Standards Addenda* series. Tom also served as a member of NCTM's Research Advisory Committee (1980–1983), championing the principle that research in mathematics education should inform and support practice in meaningful ways.

Tom worked tirelessly for NCSM, serving as its sixth president (1979–1981). In the NCSM 35th Anniversary Booklet, Tom stated, "As president, one of my goals was to clarify the issue of where higher education people fit into the organization and expand the view of leadership/ supervision." According to Shirley Frye, who succeeded Tom as NCSM President "This was particularly important since the membership of NCSM in the early years had mainly been the supervisors and leaders of mathematics education in large school districts." Tom's numerous efforts on behalf of mathematics education were recognized by NCSM in 1988 when he received the Glenn Gilbert National Leadership Award.

Subsequently, Tom served as the co-principal investigator for Project IMPACT, a National Science Foundationfunded research effort addressing elementary mathematics reform in urban schools. Identifying the school as the unit of change, Project IMPACT addressed elementary mathematics instruction and teacher knowledge within schools bordering Washington D.C. As such, it not only impacted the culture of these urban schools, it also characterized the nature of Standards-based instruction that encouraged students to question and build mathematical meaning. Recognizing that the children in Project IMPACT classrooms were eagerly secure and resourceful as they actively investigated mathematics, Tom noted that the students were "thinking like mathematicians." With Barbara Bourne, Tom authored *Thinking Like Mathematicians: Putting* the NCTM Standards into Practice (Heinemann, 1994, 2001), coupling case studies and vignettes with discussions of instructional strategies, assessment techniques and programmatic guidelines. Tom's NCSM Annual Conference presentations about young children as mathematics learners influenced and inspired many mathematics education leaders.

Tom had a life separate from his professional endeavors, as he played saxophone in two local bands (A Band for all Seasons and Big Band Traditions) and relished interactions with his family. He is survived by Sandy, his wife of 48 years, his son (Doug) and daughter (Wendi) and their spouses, as well as four grandsons (Jacksun, Zachary, Mason and Nicholas).

In the words of Tom's friend and colleague Patricia Campbell, University of Maryland, "With the passing of Tom Rowan, mathematics education has lost a guiding light who quietly worked tirelessly with commitment and skill to advance the field and to promote the form of mathematics instruction that he fervently believed all children deserve – instruction that challenges and supports each child's efforts to make sense of the math." Or, as Francis (Skip) Fennell, former NCTM President, fellow Glenn Gilbert Awardee, and long-time friend, wrote to Tom's wife, "Tom Rowan really valued deeply the opportunity for children to develop as mathematics learners - to get it, to understand - on their terms. What a nice legacy." NCSM applauds the work and efforts of this remarkable person and leader. He will be fondly remembered and greatly missed by all of us in mathematics education.

Wednesday 2:45–4:00, Special Interest Groups

Session 345: Joint Session of NCSM and the NCTM **Research Presession**

Strand 3

Marriott Downtown: Marriott Ballroom 6 Understanding the Influence of the Common Core State Standards in Mathematics: What Do We Need to Know and When Do We Need to Know It?

Iris Weiss, Horizon Research, Inc., Chapel Hill, NC

The Common Core State Standards in Mathematics (CCSSM) were released in June 2010, billed as a set of "fewer, clearer, and higher standards" that would be appropriate for all students. The idea is that having common standards across states, with explicit connections across the grades in terms of both mathematics content and mathematical practices, will add focus and coherence to mathematics education across the United States. There are lots of views about the likely impact of the CCSSM, ranging from unbridled optimism about a fully aligned system, to skepticism that any changes will be meaningful ones, to predictions of dire outcomes, e.g., that teachers will not be able to tailor the curriculum to meet the needs of their particular students. This presentation will describe a project that is underway to develop a research agenda for tracking the influence of the CCSSM over time, including: (1) describing the extent to which the mathematics education system is changing consistent with the CCSSM; and (2) assessing the extent to which the alignment/lack of alignment is having positive and negative impacts on teaching and learning.



Iris R. Weiss is president of Horizon Research, Inc. (HRI), a contract research firm in Chapel Hill, NC specializing in science and mathematics education research and evaluation. She has had extensive experience in science and mathematics education evaluation and policy research. Dr. Weiss received a

bachelor's degree in biology from Cornell University, a master's degree in science education from Harvard University, and a PhD in curriculum and instruction from the University of North Carolina at Chapel Hill. Before establishing HRI in 1987, Dr. Weiss was senior educational research scientist at the Research Triangle Institute (RTI). While at RTI, she directed numerous education research, development, and evaluation projects, including the 1977 and 1985-86 National Surveys of Science and Mathematics Education. Shortly before leaving RTI, Dr. Weiss conducted an assessment of policy options available to NSF for helping to improve middle school science education.

Dr. Weiss has directed many of HRI's research, development, and evaluation projects and is responsible for quality control of all operations. She has provided

consultation to the National Science Foundation. US Department of Education, American Association for the Advancement of Science, National Science Teachers Association. National Council of Teachers of Mathematics. Congressional Office of Technology Assessment, Council of Chief State School Officers, and National Assessment of Educational Progress. Dr. Weiss is currently principal investigator of a knowledge management and dissemination project for NSF's Math-Science Partnership program.

Session 346

JW Marriott: 103 **Enhance Students' Problem Solving Skills Using the Mathematical Olympiads for Elementary and Middle** Schools (MOEMS)

MOEMS contests will deepen students' and teachers' mathematical thinking. Discussion will center on the benefits of pursuing "outside-the-box" problem solving for all students, while demonstrating how using these problems will ensure greater mathematical success for all students.

Nicholas Restivo, Mathematical Olympiads for Elementary & Middle Schools, Bellmore, NY

Session 347

JW Marriott: 101-102 **Toward Pedagogies of Teaching for Social Justice**

The Benjamin Banneker Association embraces theories and frameworks that move the field of mathematics toward teaching for social justice. The purpose of the discussion is to provide practical examples supervisors and teachers can use to prepare students to use mathematics for empowerment and self-determination.

Jacqueline Leonard, University of Colorado Denver, Denver, CO

Session 348

JW Marriott: 104

Walking Our Talk! NCSM PRIME Strategies for **Mathematics Education Leaders to Promote and Achieve Equity**

Leaders recognize mathematics teaching and learning occur when diverse students engage in mathematical tasks set in a culturally meaningful context. North American Study Group on Ethnomathematics (NASGEm) invites participants to discuss ways to use this knowledge to enhance instructional effectiveness with a focus on equity, using NCSM PRIME strategies.

Chadd McGlone, Trinity School of Durham, Durham, NC James Barta, Utah State University - Salt Lake City, Salt Lake City, UT

Wednesday 2:45–4:00, Special Interest Groups (continued)

Session 349

Marriott Downtown: Marriott Ballroom 8-9 Lesson Study Networking: Join Practitioners, **Researchers, and Leaders in Sharing Lesson Study Resources and Questions**

Lesson study is growing in the United States, yet most teams lack opportunities to connect with others. This Special Interest Group is for networking-identifying common interests, challenges, and questions. Sharing resources (e.g., research lessons, research questions) is encouraged. Those new to lesson study are welcome.

Johannah Nikula, Education Development Center, Newton, MA Jane Gorman, Cambridge Public Schools, Cambridge, MA

Session 350 Marriott Downtown: Marriott Ballroom 2-3 Association of Mathematics Teacher Educators (AMTE)

AMTE's focus is on the improvement of mathematics teacher education. Join us in this session for discussion of topics of mutual interest, such as mathematics specialists in the elementary grades, teacher preparation policies and practices, and K-12 mathematics education leadership development.

Nadine Bezuk, San Diego State University, San Diego, CA

Marilyn Strutchens, AMTE President, Auburn University, Auburn, AL

Session 351 Marriott Downtown: Marriott Ballroom 10 Math 2.0: New Opportunities for Collaborative Teaching and Learning Mathematics with Internet-**Based Tools**

An expanding community of mathematics educators and software developers are utilizing a variety of social networking environments to share new ideas in mathematics education. Join us for a round-table discussion to find out how teachers are taking advantage of these Web 2.0 communities to enhance mathematics learning.

Ihor Charischak, Council for Technology in Math Education (CLIME), White Plains, NY

David Weksler, Council for Technology in Math Education (CLIME), Tenafly, NJ

Session 352

JW Marriott: 201-202

Emerging Leaders: Focus Question/Answer Time

After a conference filled with ideas on "Mathematics Leaders Making a Difference," this session will allow for an open discussion regarding the "how to." Collaborate with other new mathematics leaders to create a network of support.

Mona Toncheff, Phoenix Union High School District, Phoenix, AZ

Session 353 JW Marriott: 204-205 **Equity in Mathematics Education: TODOS**

Do you teach Latino/Hispanic Students? Are you ready to share vour successes and challenges with other educators? Do you want to learn more about TODOS and how you can contribute

to the organization? We invite you to participate in the TODOS business meeting and dialogue to shape future discussions.

José Franco, WestEd, Oakland, CA

Carol Edwards, Chandler-Gilbert Community College, Chandler, AZ

Marriott Downtown: Marriott Ballroom 4 Session 354 **Educational Consultants: A Networking Opportunity**

Join our discussion to share expertise and strategies. Hear from others as to how they got started, and marketing techniques they may have used. This is our time to gain from our collective knowledge and support our work. This session was well attended last year-hope you will join us!

Kit Norris, Self Employed, Southborough, MA

Session 355 Marriott Downtown: Marriott Ballroom 1 Improving Student Achievement by Expanding **Opportunities for Mathematically Promising Students: A New NCSM Position Paper**

NCSM Position Papers are designed to provide members with support on critical issues, and support of mathematically promising students is one of the most critical. Join us at this session to discuss the draft of this new position paper, and give your input to the Special Interest Group before it is finalized.

Linda Sheffield, Northern Kentucky University - Emerita, Highland Heights, KY

Session 356 Marriott Downtown: Marriott Ballroom 7 Urban Mathematics Leadership Network (UMLN) Forum

The UMLN is composed of mathematics directors from some of the country's largest and most influential urban districts. UMLN invites leaders from urban districts to join this open forum about issues that are of particular interest, such as how to support the implementation of the Common Core State Standards.

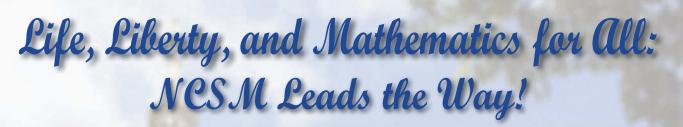
Brian Newsom, Charles A. Dana Center, University of Texas at Austin, Austin, TX

Susan Hudson Hull, Charles A. Dana Center, University of Texas at Austin, Austin, TX

Session 357 Marriott Downtown: Austin/Boston **Defining Assessment Targets for the 21st Century GED Mathematics Assessment**

The GED test, which targets adults who have not attained a high school diploma, is undergoing major revisions. It will reflect the Common Core State Standards and define multiple levels of readiness. This session provides an opportunity to learn about and offer feedback on this work.

Kaye Forgione, Achieve, Washington, DC



The **2012 NCSM Annual Conference** will be held in **Philadelphia**, **PA**. We look forward to a great conference that will support your work with teachers to "lead the way" in providing all students a high quality mathematics education. The conference strands address the many aspects of our work as leaders, including:

- 1. Bridging the Knowing-Doing Gap: Implementing the Common Core State Standards
- 2. All Means All: Promoting Equity in Mathematics Education
- 3. *Mathematics Leaders Translate Vision to Practice:* Developing and Supporting Coaches, Specialists and Teacher Leaders
- 4. *Making Mathematics Learning Visible:* Implementing Formative and Summative Assessments to Support Student Learning
- 5. Leadership to Enhance Mathematics Teaching and Learning: Helping Administrators and Other Leaders Support High Quality Mathematics Instruction for All

44тн NCSM Annual Conference April 23–25, 2012 PHILADELPHIA PENNSYLVANIA

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Speaker Proposals:

Deadline for speaker proposals: **June 3, 2011** Proposals must be submitted online at: **mathedleadership.org**

2012 NCSM Conference Committee











Cathy Carroll Denise Walston Conference Program Chair Coordinator

n Diana Kendrick volunteer Recruitment Chair & Regional Host Sherry Lane Ann Webb Sponsor Liaison Sponsor Liaison

Suzanne Mitchell NCSM President

ell Terri Belcher Int NCSM Executive Director

LEADERSHIP IN MATHEMATICS EDUCATION NETWORK COMMUNICATE SUPPORT MOTIVATE

National Council of Supervisors of Mathematics mathedleadership.org

NCSM Mission

The National Council of Supervisors of Mathematics (NCSM) is a mathematics leadership organization for educational leaders that provides professional learning opportunities necessary to support and sustain improved student achievement.

NCSM Vision

NCSM envisions a professional and diverse learning community of educational leaders that ensures every student in every classroom has access to effective mathematics teachers, relevant curricula, culturally responsive pedagogy, and current technology.

To achieve our NCSM vision, we will:

N Network and collaborate with stakeholders in education, business, and government communities to ensure the growth and development of mathematics education leaders

C Communicate to mathematics leaders current and relevant research, and provide up-to-date information on issues, trends, programs, policies, best practices, and technology in mathematics education

S Support and sustain improved student achievement through the development of leadership skills and relationships among current and future mathematics leaders

M Motivate mathematics leaders to maintain a life-long commitment to provide equity and access for all learners

Over Four Decades of NCSM Presidents

We honor the legacy of Former NCSM Presidents and value their contribution, support, and leadership.

2009–2011	Diane J. Briars	1987–1989	Iris M. Carl
2007–2009	Timothy D. Kanold	1985–1987	David R. Johnson
2005-2007	Linda M. Gojak	1983–1985	Sally Sloan
2003-2005	Kay Gilliland	1981–1983	Shirley Frye
2001-2003	Carole Greenes	1979–1981	Thomas Rowan
1999–2001	Jerry Cummins	1977–1979	Dorothy Strong
1997–1999	Bonnie Walker	1975–1977	Alexander Tobin
1995–1997	Steven Leinwand	1973–1975	Arthur Frier
1993–1995	L. Carey Bolster	1971–1973	Ross Taylor
1991–1993	Henry Kepner	1969–1971	Louis Scholl
1989–1991	Larry Bradsby		

2010–2011 NCSM Board Members

Elected

President – Diane J. Briars President Elect – Suzanne Mitchell 1st Vice President – Sandie Gilliam 2nd Vice President – Denise M. Walston Regional Directors: Canadian Region – Donna Karsten Central Region 1 – Valerie L. Mills Central Region 2 – Connie Schrock Eastern Region 1 – Mari Muri Eastern Region 2 – Diana G. Kendrick Southern Region 1 – Susan Birnie Southern Region 2 – Ted H. Hull Western Region 1 – Richard Seitz Western Region 2 – Sara Munshin

Appointed

Awards Chair – Donna Simpson Leak Conference Coordinator – Cathy Carroll eNEWS and Web Editor – Don W. Scheuer, Jr. Journal Editor – Linda Ruiz Davenport Membership & Marketing Chair – Ruth Harbin Miles NCTM Representative – Jerry Cummins Newsletter Editor – Kay Gilliland Nominations Chair – Kim Hall Position Papers Editor – Kit Norris Secretary – Janet Sinopoli Sponsor Liaisons – Janet R. Falkowski & Mary Lynn Raith Treasurer – Randy Pippen

2011–2012 NCSM Board Members

Elected

President – Suzanne Mitchell Immediate Past President – Diane J. Briars 1st Vice President – Denise M. Walston 2nd Vice President – Diana G. Kendrick Regional Directors: Canadian Region – Donna Karsten Central Region 1 – Valerie L. Mills Central Region 2 – Laura Godfrey Eastern Region 1 – Mari Muri Eastern Region 2 – Jim Bohan Southern Region 1 – Susan Birnie Southern Region 2 – Ted H. Hull Western Region 1 – Richard Seitz Western Region 2 – Hope Bjerke

Appointed

Awards Chair – Noemi Lopez 2009–2012 Conference Coordinator – Cathy Carroll 2013–2014 Conference Coordinator – Dianne DeMille eNEWS Editor – Mike Hall Journal Editor – Linda Ruiz Davenport Membership & Marketing Chair – Ruth Harbin Miles NCTM Representative – John W. Staley Newsletter Editor – Kay Gilliland Nominations Chair – Beverly K. Kimes Position Papers Editor – Vena Long Secretary – Aimee Evans Sponsor Liaisons – Sherry Lane & Ann Webb Treasurer – Randy Pippen

NCSM Professional Services 2010–2011

Executive Director – Terri K. Belcher Annual Conference Housing Bureau – Wyndham Jade Journal Technical Editor – Bonnie Katz Member & Conference Services – Dorothy Shadrick & Melissa Anacker, ACE Management Newsletter Technical Editor – Deborah Anker, BesType

Technology Liaison – Charlene Chausis

Web Management - Gino Bossetto, Stellar IT Solutions

2011-2012

Executive Director – Terri K. Belcher Annual Conference Housing Bureau – Wyndham Jade Journal Technical Editor – Bonnie Katz Member & Conference Services – Dorothy Shadrick & Melissa Anacker, ACE Management Newsletter Technical Editor – Deborah Anker, BesType Technology Liaison – Charlene Chausis Web Management – Gino Bossetto, Stellar IT Solutions

2011-2012 Conference Planning Committee

Philadelphia, PA, April 23–25, 2012

Suzanne Mitchell NCSM President Jacksonville, Arkansas

Cathy Carroll Conference Coordinator San Mateo, California

Denise M. Walston Program Chair Norfolk, Virginia

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Volunteer Recruitment and Management Chair/ Regional Host Fort Washington, Maryland *Sherry Lane* Sponsor Liaison Alma, Arkansas

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Melissa Anacker & Dorothy Shadrick NCSM Member and Conference Services Denver, Colorado

NCSM Member and Conference Services

To join NCSM, renew your NCSM membership, and to register for the NCSM Annual Conference, Regional Events and Leadership Academy, contact:

NCSM Member and Conference Services 6000 E Evans Ave Ste 3-205 Denver, CO 80222 Phone: (303) 758-9611 Fax: (303) 758-9616 office@mathedleadership.org

Request for Nominations

2012 NCSM Board Positions

The following positions are open for the 2012 Board:

- President Elect
- Second Vice President
- Regional Director, Canada
- Regional Director, Southern 1
- Regional Director, Western 1

Visit mathedleadership.org for details about the positions, the nomination procedure, and the nomination form.

The deadline for nominations for the NCSM Board positions is Tuesday, May 15, 2011.

Request for Speaker Proposals

44th NCSM Annual Conference Philadelphia, Pennsylvania April 23–25, 2012

Theme: *Life, Liberty, and Mathematics for All: NCSM Leads the Way!*

As leaders in mathematics education, we are charged with supporting teachers to provide all students access to a high quality mathematics program. To this end, the 2012 NCSM Annual Conference will provide sessions that enhance our work as mathematics leaders. We invite proposals that focus on the following conference strands:

- 1. *Bridging the Knowing-Doing Gap: Implementing the Common Core State Standards* This strand focuses on important leadership issues related to the Common Core State Standards. Sessions will support leaders in understanding the standards and developing strategies to support implementation.
- 2. *ALL Means ALL: Promoting Equity in Mathematics Education* The focus of the strand is on structures that become institutionalized and part of the fabric of a district or state to embrace equity for all. How are we making it actionable?
- 3. *Mathematics Leaders Translate Vision to Practice:* Developing and Supporting Coaches, Specialists, and Teacher Leaders

This strand focuses on mathematics coaches, specialists, teacher leaders, and PD providers, and the work they do to support and encourage teachers for education reform in enhancing mathematics teaching and learning in their classrooms

4. *Making Mathematics Learning Visible:* Implementing Formative and Summative Assessments to Support Student Learning

This strand focuses on strategies leaders can share with teachers to ensure accurate monitoring of student learning and adjustment of teacher instruction for every student on an ongoing basis.

5. Leadership to Enhance Mathematics Teaching and Learning for All: Helping Administrators and Other Leaders Support High Quality Mathematics Instruction

This strand supports the work of mathematics instructional leaders—focusing on strategies for helping enhance the mathematics instruction in the classroom, as well as on strategies for communicating about important mathematics education issues with parents and other stakeholders.

All speaker proposals must be submitted online at mathedleadership.org.

The deadline for submission of speaker proposals is June 3, 2011.

NCSM Grants, Awards, and Certificates

Support the NCSM Iris Carl Leadership Fund

The NCSM Iris Carl Mathematics Leadership Fund endows up to three travel grants per year to NCSM members who have not attended an NCSM conference for the past three years.

The Fund is supported by generous donations from individuals who may mail a check in any amount payable to *NCSM Iris Carl Leadership Fund* to:

Randy Pippen, NCSM Treasurer 6000 E. Evans Ave Ste 3-205 Denver CO 80222

Information about the *Travel Grant* and an application form are available on the NCSM Website, *mathedleadership.org*.

Ross Taylor/Glenn Gilbert National Leadership Award

Nominations are open for the 2012 Ross Taylor/Glenn Gilbert National Leadership Award. Any member of NCSM may submit a nomination.

The Ross Taylor/Glenn Gilbert National Leadership Award annually recognizes an individual who has demonstrated leadership in, and has made outstanding, unique, and dedicated contributions to the field of mathematics education.

Award criteria and nomination procedures are available on the NCSM Website, *mathedleadership.org*.

The deadline for nominations for the 2012 Award is November 1, 2011.

Mathematics Student Recognition Award

The Mathematics Student Recognition Program was created to provide a means for honoring outstanding students who excel in the study of mathematics. All public, parochial, and private schools, colleges, and universities that have at least one NCSM member in the area are eligible to participate. The number of awards should not exceed two per year per graduating class or grade level.

Award certificates are available at the Conference Registration desk, or may be ordered from NCSM Member and Conference Services, 6000 E. Evans Ave Ste 3-205, Denver, CO 80222, (303) 758-9611, *office@ mathedleadership.org*.

More information about the recognition criteria and certificates is available at mathedleadership.org.

Important Future NCSM Dates

Future NCSM Annual Conferences

44th NCSM Annual Conference

Life, Liberty, and Mathematics for All: NCSM Leads the Way April 23–25, 2012 Philadelphia, Pennsylvania

45th NCSM Annual Conference April 15–17, 2013 Denver, Colorado

46th NCSM Annual Conference April 7–9, 2014 New Orleans, Louisiana

47th NCSM Annual Conference April 13–15, 2015 Boston, Massachusetts

48th NCSM Annual Conference April 11–13, 2016 San Francisco, California

Future NCSM Regional Events

2011 NCSM Leadership Academy

Mathematics Leadership at Work: Moving the Common Core State Standards From Vision to Action June 21–23, 2011 Atlanta, Georgia

See the ad behind the "Wednesday Program" tab or visit mathedleadership.org for details.

2011 NCSM Fall Leadership Seminars: Tools and Strategies for Implementing the Common Core State Standards

Atlantic City, New Jersey October 19, 2011

St. Louis, Missouri October 26, 2011

Albuquerque, New Mexico November 2, 2011

Also visit *mathedleadership.org* for NCSM membership events scheduled during the 2011 NCTM Regionals in Atlantic City, St. Louis, and Albuquerque. Current and new NCSM members are welcome to participate.

Leadership Academy

15th Annual NCSM Leadership Academy

"Mathematics Leadership at Work: Moving the Common Core State Standards From Vision to Action"

June 21–23, 2011 Atlanta, Georgia

See the ad behind the "Monday Program" tab or visit mathedleadership.org for more details.

NCSM Journal of Mathematics Education Leadership

The editors of the *NCSM Journal of Mathematics Education Leadership* are interested in manuscripts addressing issues of leadership in mathematics education and reflecting a broad spectrum of formal and informal leadership at local, regional, national, and international levels.

Categories for submittal include

- Key topics in leadership and leadership development
- Case studies of mathematics education leadership work in schools and districts or at the state level and the lessons learned from this work
- Reflections on what it means to be a mathematics education leader and what it means to strengthen one's leadership practice
- · Research reports with implications for mathematics education leaders
- Professional development efforts including how these efforts are situated in the larger context of professional development and implications for leadership practice
- · Brief commentaries on critical issues in mathematics education
- · Brief reviews of books that would be of interest to mathematics education leaders

Other categories for submittal will also be considered if they otherwise support the goals and mission of the journal.

Deadlines for Submissions

Winter 2011 NCSM Journal of Mathematics Education Leadership—July 1, 2011

Spring 2012 NCSM Journal of Mathematics Education Leadership—January 1, 2012

Submission and review procedures are posted on the NCSM Website, mathedleadership.org.

NCSM Newsletter

The *NCSM Newsletter* promotes networking and collaboration among NCSM members and other stakeholders in the education community and welcomes submission from members. The purpose of the *NCSM Newsletter* is to advance the mission and vision of NCSM by informing the membership of the ongoing activities of the NCSM Board and by publishing current information about issues, trends, programs, policy, and practice in mathematics education.

Deadlines for Submissions

Summer 2011 NCSM Newsletter—April 25, 2011 Fall 2011 NCSM Newsletter—August 10, 2011 Winter 2011–2012 NCSM Newsletter—October 5, 2011 Spring 2012 NCSM Newsletter—December 5, 2011

The *NCSM Newsletter* is published four times a year—fall, winter, spring, and summer and is mailed only to NCSM members as a benefit of membership.

Submission procedures and deadlines are posted on the NCSM Website, *mathedleadership.org*.

NCSM Webinars

This year, through the generous support of Carnegie Learning, Inc., NCSM has added webinars to its professional growth learning opportunities. The webinars are free and open to everyone. The first two webinars were:

- *Getting Started with the Common Core State Standards: First Steps for Mathematics Education Leaders*
- Deeper Dive into the Common Core State Standards for Mathematics: Leading with the Mathematical Practice

Visit mathedleadership.org for future topics and dates. If you are unable to join us during live webinars or want to review the webinar, visit mathedleadership.org to listen to the webinar recordings any time after they are posted.

Podcasts

NCSM has a podcast library. NCSM Position Papers are podcasts and selected NCSM Annual Conference sessions (2007 to 2010) have been recorded and are posted at mathedleadership.org. NCSM podcasts are provided as part of the educational services NCSM provides members and visitors to the NCSM Website.

Visit the NCSM Website, mathedleadership.org.

Position Paper Series: Improving Student Achievement

The NCSM Board proudly offers our membership the Improving Student Achievement Position Paper series. We hope that these papers are informative, supportive, and challenging as our members lead the effort in their local districts to improve student achievement in mathematics.

The process of developing research-informed leadership position papers on issues critical to the future of mathematics education began in the summer of 2006. Past President Steven Leinwand made a strong recommendation to the NCSM Board to provide a long-term series of practical, research-informed Position Papers as part of the NCSM's strategic plan. Tim Kanold pursued the initiative during his presidency (2007–2009), and he created the format for all of the papers to follow:

The stated Position of NCSM: A summary of the research that supports the Position; Specific leadership actions that will help to implement the Position; References that support further investigation into the Position.

The process for developing each paper begins with identifying an author to create an initial draft on a specific topic. The draft is edited and then sent out to individuals for critique. The paper is revised based on that feedback, returned to the author, and then sent to NCSM's Board of Directors for review. The paper undergoes a final edit and then is submitted again to the board for approval. This extensive and collaborative process reflects our collective voices and contributes to the power of these Position Papers.

Recently released Position Papers include:

Improving Student Achievement by Leading Effective and Collaborative Teams of Mathematics Teachers (Fall 2007)

Improving Student Achievement by Leading Sustained Professional Learning for Mathematics Content and Pedagogical Knowledge Development (Fall 2007)

Improving Student Achievement by Leading the Pursuit of a Vision for Equity (Spring 2008)

Improving Student Achievement in Mathematics for Students with Special Needs (Fall 2008)

Improving Student Achievement in Mathematics by Addressing the Needs of English Language Learners (Winter 2008)

Improving Student Achievement by Leading Highly Effective Assessment Practices (Spring 2009)

Improving Student Achievement in Mathematics by Promoting Positive Self-Beliefs (Spring 2010)

Improving Student Achievement in Mathematics by Systematically Integrating Appropriate Technology (Spring 2011)

Soon to be released:

Improving Student Achievement by Expanding Opportunities for Mathematically Promising Students (Summer 2011) Our thanks and appreciation to all who contributed to this series.

Primary Contributors

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Notes			

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Annual Conference Professional Reading:

The Teacher Development Continuum in the United States and China: Summary of a Workshop, NAS Report

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Henry Borenson, Ph.D. President Phone: (800) 993-6284 henry@borenson.com

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- Deeper Dive into the Common Core State Standards for Mathematics: Leading with the Standards for Mathematical Practice

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Math Solutions

Annual Conference Literary Gift: Classroom Discussions: Using Math Talk to Help Students Learn, Grades K-6. Second Edition. Suzanne H. Chapin, Catherine O'Connor, and Nancy Canavan Anderson

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Scholastic Inc.

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Scholastic Inc. 100 Talcott Avenue Watertown, MA 02472 Website: www.scholastic.com/ mathintervention

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All Sponsor Showcase Sessions will be held in Santa Fe on the 2nd Floor of the Marriott Downtown, unless otherwise noted.

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v		
9:30 AM - 10:30 AM	Math Solutions, Session 114: Let's Talk About Mathematics: Key Discussion Topics and Problems	
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12:15 PM – 1:15 PM	It's About Time Publishing, Session 143: Incorporating Technology with a Standards-Based Program Produces Results	
1:30 PM – 2:30 PM	ETA/Cuisenaire , Session 159: Virtual Manipulatives? Interactive Whiteboards? What Does Hands- On Really Mean Today?	
2:45 PM – 3:45 PM	CORD Communications, Inc. , Session 170: Professional Learning Communities: Building Faculty Cohesion for Teaching Mathematics the Way Students Learn	
4:00 PM - 5:00 PM	Carnegie Learning, Inc. , Session 187: How Are We Getting Students to Think More Deeply About Mathematics?	
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10:00 AM - 11:00 AM	CASIO AMERICA, INC., Session 228: Using Technology and Context to Foster Mathematical Thinking	
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10:00 AM - 11:00 AM	America's Choice, Session 327: The Common Core State Standards: Getting Ahead of the Curve for Implementation (NOTE: This session will be held in Lincoln, Marriott Downtown, Level Two)	
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Technology Showcase Sessions

All Technology Showcases will be held in Lincoln on the 2nd Floor of the Marriott Downtown.

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9:30 AM – 10:30 AM	Didax Education , Session 115: Improve Mathematics Instruction with Kathy Richardson's Formative Assessment
10:45 AM - 11:45 AM	Math Solutions, Session 131: Face-to-Face vs. Online Professional Development? Do Both! The Power of the Blended Model
12:15 PM – 1:15 PM	Carnegie Learning, Inc. , Session 144: Launch of the Carnegie Learning Mathematics Series Featuring Personalized Middle School Mathematics Instruction
1:30 PM – 2:30 PM	ExploreLearning , Session 160: Using Online Simulations to Improve Conceptual Understanding in Mathematics
2:45 PM – 3:45 PM	ORIGO Education, Inc. , Session 171: Facilitating Teachers' Professional Learning Through Online Resources
4:00 PM - 5:00 PM	Agile Mind, Session 188: Using Technology for Student Success in 6–12 Mathematics
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8:45 AM – 9:45 AM	Texas Instruments , Session 212: TI-Nspire Fosters an Interactive Mathematics Instruction and Assessment Experience with the TI-Nspire Navigator and an Interactive Whiteboard
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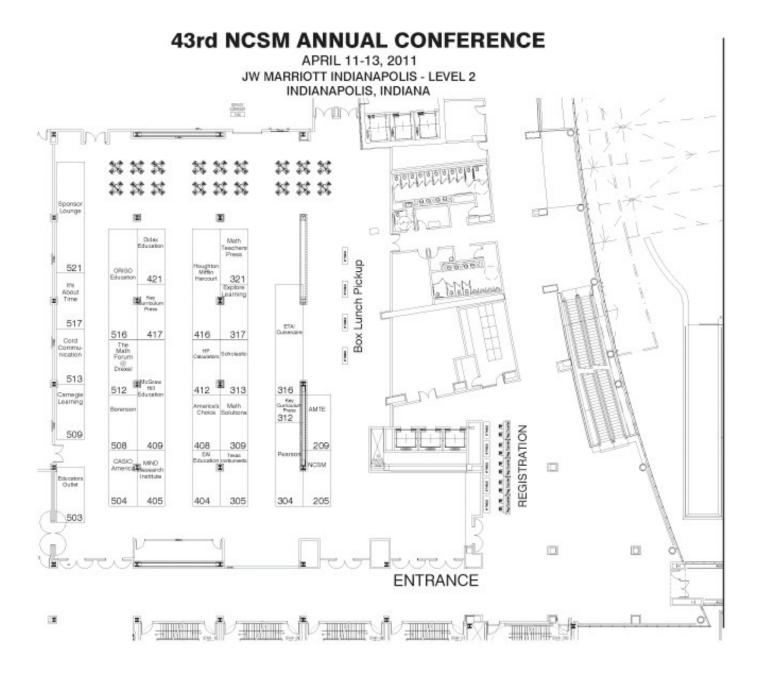
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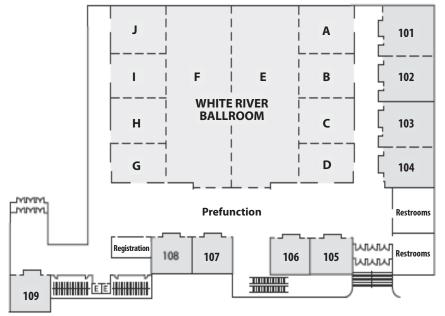
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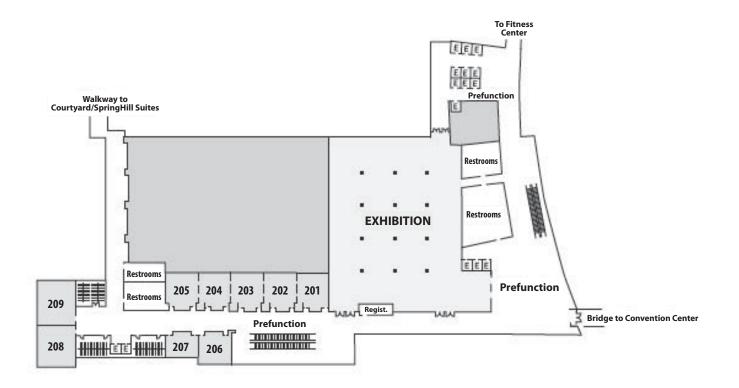
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Sponsor Display Area





First Floor



Second Floor



2011 Conference Planner

Date and Time	Event	Session # Location
Monday, April 11		
6:45 AM – 5:00 PM	Advance & On-site Registration	Level Two, JW Marriott
6:45 AM – 7:30 AM	Complimentary Continental Breakfast –	White River Foyer, JW Marriott
	MIND Research Institute	
7:30 AM – 9:00 AM	Opening Session & Keynote	White River Ballroom, JW Marrie
9:30 AM – 10:30 AM		JW Marriott & Marriott Downtow
9:30 AM – 11:30 AM		
10:45 AM - 11:45 AM		
11:00 AM - 5:45 PM	Sponsor Displays	Griffin Hall, JW Marriott
11:30 AM – 12:45 PM	Box Lunch – Didax & Math Teachers Press	Griffin Hall, JW Marriott
	(ticket required) Any remaining lunches will be	
	available on a first-come, first-served basis at	
	12:45 PM.	
12:00 PM – 2:00 PM		JW Marriott & Marriott Downtow
12:15 PM – 1:15 PM		
1:30 PM – 2:30 PM		
2:45 PM – 3:45 PM		
2:45 PM – 4:45 PM		
4:00 PM – 5:00 PM		
5:45 PM – 7:00 PM	Reception – Carnegie Learning, Inc.	White River Ballroom, JW Marrie
	(ticket required)	
Tuesday, April 12		
6:45 AM–12:15 PM	Advance & On-site Registration	Level Two, JW Marriott
7:30 AM – 8:30 AM	Breakfast – Scholastic Inc. (ticket required)	Marriott Ballroom, Marriott
7.50 AW = 0.50 AW	Dicakiast – Scholastic Inc. (lickel required)	Downtown
8:30 AM –12:30 PM	Sponsor Displays	Griffin Hall, JW Marriott
8:45 AM – 9:45 AM		JW Marriott & Marriott Downtow
8:45 AM – 10:15 AM		
10:00 AM - 11:00 AM		
10:30 AM – 12:00 PM		
11:15 AM – 12:15 PM		
12:30 PM – 2:30 PM	Luncheon – Texas Instruments	Marriott Ballroom, Marriott
12.501101 2.501101	(ticket required)	Downtown
2:30 PM – 4:00 PM	Sponsor Displays	Griffin Hall, JW Marriott
2:30 PM - 5:00 PM	Advance & On-site Registration	White River Foyer, JW Marriott
2:45 PM – 3:45 PM		JW Marriott & Marriott Downtow
2:45 PM – 4:15 PM		
4:15 PM – 5:30 PM	Caucus Meetings	
5:45 PM – 7:00 PM	Reception – Pearson (ticket required)	Marriott Ballroom, Marriott
5.15 INI 7.00 INI	Reception Tearson (nonci requirea)	Downtown
Wednesday, April 13	1	
7:30 AM – 10:30 AM	Advance & On-site Registration	Level Two, JW Marriott
7:30 AM – 8:30 AM	Breakfast – America's Choice (ticket required)	White River Ballroom, JW Marrie
$\frac{7.50 \text{ AM} - 8.50 \text{ AM}}{8:45 \text{ AM} - 9:45 \text{ AM}}$	Dicariast – America's Choice (lickel regulieu)	JW Marriott & Marriott Downtow
8:45 AM - 9.43 AM		
$\frac{10:00 \text{ AM} - 10.13 \text{ AM}}{10:00 \text{ AM} - 11:00 \text{ AM}}$		+
10:30 AM - 12:00 PM		+
11:15 AM - 12:15 PM		+
$\frac{11:13 \text{ AM} - 12:13 \text{ PM}}{12:30 \text{ PM} - 2:30 \text{ PM}}$	Luncheon – CASIO AMERICA, INC. &	White River Ballroom, JW Marrio
12.30 FIVI - 2.30 FIVI	Houghton Mifflin Harcourt (ticket required)	winte Niver Daniouni, 5 w Marrio
2:45 PM – 4:00 PM		JW Marriott & Marriott Downtow
2:45 PM – 4:00 PM 2:45 PM – 4:00 PM	Special Interest Group Meetings Joint Session of NCSM and NCTM Research	Marriott & Marriott Downtow Marriott Downtown, Level Two
	TIOTH DESSION OF INCOMPANDING INCLIME RESEARCH	IVIATION DOWNOWN, Level IWO

Notes		