




# THURSDAY PLANNER

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THURSDAY

 Learn↔Reflect Strand     Teaching Mathematics to Students Who Struggle Strand     Exhibitor Workshop

## Highlights

- New Member and First Timers' Orientation (Presentation 2)
- Learn↔Reflect Kickoff (Presentation 40)
- New and Preservice Teachers Workshop (Presentation 125)
- Learn↔Reflect Reflection Session (Presentation 127)

Registration Hours  
7:00 a.m.–4:00 p.m.

Exhibit Hours  
8:00 a.m.–4:00 p.m.

Bookstore and Member  
Showcase Hours  
7:00 a.m.–4:00 p.m.

### Fire Codes

We have made every attempt to provide adequate seating for participants at the conference, but for your safety and because of fire regulations, only those with seats will be allowed in meeting rooms. To conform to fire codes, it will be necessary to ask persons sitting on the floor or standing to leave the room.

7:15 A.M.–7:45 A.M.

2

## New Members and First Timers' Orientation

(General Interest) Session

New to NCTM? Join us to learn how to maximize your membership experience! From journals and online lessons, tools, and activities; to networking and career-advancement opportunities; you'll discover all that NCTM has to offer you. Also, learn how to make the most of your time at the conference.

**John E. Hammett III**  
Saint Peter's College, Jersey City, New Jersey

Room 318

8:00 A.M.–9:00 A.M.



3

## Differentiating Instruction in Grades 3–8

(General Interest) Session

Participate in hands-on examples of ways to address students' needs. The speaker will draw samples from the number, algebra, geometry, measurement, and data areas, with particular attention to how the Common Core State Standards addresses the areas.

**Janet H. Caldwell**  
Rowan University, Glassboro, New Jersey

Room 403

4

## The Power of Mathematical Learning Communities

(General Interest) Session

Mathematical learning communities build trust, open honest communication, and promote an in-depth understanding of mathematical concepts and knowledge. Come listen to how Lowell Public Schools have infused this model into professional development courses and workshops for teachers.

**M. Claire Abrams**  
Lowell Public Schools, Lowell, Massachusetts

**Jeff Gwiazda**  
Lowell Public Schools, Lowell, Massachusetts

**Magaly Ronan**  
Lowell Public Schools, Lowell, Massachusetts

Room 410

5

## Using National Board Standards to Guide and Improve Mathematics Teaching

(General Interest) Session

The National Board for Professional Teaching Standards represents a professional consensus on what accomplished teachers should know and be able to do. Explore mathematics standards in early childhood or middle childhood generalist and early adolescence through young adulthood, and consider why you might pursue National Board certification.

**Lisa Stooksberry**  
National Board for Professional Teaching Standards, Arlington, Virginia

**Francis (Skip) Fennell**  
Past President, National Council of Teachers of Mathematics; McDaniel College, Westminster, Maryland

**Karen King**  
National Council of Teachers of Mathematics, Reston, Virginia

**Tamara Sewell**  
Adelphi University, Garden City, New York

**Donna Young**  
Kent Island High School, Stevensville, Maryland

Room 305/306

6

## Activities for Students' Success

(Pre-K–5) Session

This session will include problem-based mathematics activities that engage elementary school students in doing mathematics. You will leave this session with the materials needed for students' success.

**Janet Stramel**  
Fort Hays State University, Hays, Kansas

Room 405/406

Participate in today's  
Learn↔Reflect Strand.  
Look for sessions marked  
with the LOR icon.

8:00 A.M.–9:00 A.M.



7

## Coteaching in the Mathematics Classroom

(Pre-K–5) Session

Whether it occurs with an inclusion teacher, math coach, or gifted-support or intervention teacher, coteaching implemented correctly benefits all students. Learn first-hand strategies from teachers who use coteaching daily, learn what coteaching means, and take home strategies and methods that you can implement in your school.

**Amy Besterman**

Avonworth School District, Pittsburgh, Pennsylvania

**David Thomas**

Avonworth School District, Pittsburgh, Pennsylvania

Room 318



8

## Family Math Nights: Building Mathematical Knowledge in the Community

(Pre-K–5) Session

This session will share successful practices for organizing family math nights in low-performing schools. Participants will try out activities that promote number sense, geometry, and problem solving. You can increase mathematical understanding and build enthusiasm for learning math by incorporating family involvement.

**Kristen Appleby**

University of Florida, Gainesville, Florida

**Rich Busi**

University of Florida, Gainesville, Florida

Room 415

9

## If You Give a Moose a Map

(3–8) Session

Take a journey with Maddie Moose down the Appalachian Trail. This culminating unit incorporates computation skills (buying supplies, balancing a checkbook) fractions, geometry, measurement, probability, and graphing. The unit is geared for grade 4 but can be adapted to any level.

**Lisa Carlson**

Saint Charles School, Kettering, Ohio

Room 421

10

## Writing across the Mathematics Curriculum to Assess Conceptual Understanding

(3–8) Session

This session will focus on the benefits of using authentic, meaningful writing in the math classroom as an assessment tool and an instructional strategy. The speakers will share and explain different writing strategies and a step-by-step process. Participants will receive clear examples that they can use as models with students.

**Carla J. Hunt**

Albemarle County Schools, Charlottesville, Virginia

**Monica Cabarcas**

Albemarle County Schools, Charlottesville, Virginia

**Colleen Branche**

Albemarle County Schools, Charlottesville, Virginia

Room 319

11

## Developing Linear Graphs and Equations through Guided Discovery

(6–8) Session

Learn how to increase students' engagement and understanding with guided discovery. This session will use Microsoft Excel to investigate the graphical, numerical, and algebraic representations of data. Students will construct the equation of a line and explore how the various parameters of the equation relate to the line's graph.

**Virginia Fraser**

Indiana University Southeast, New Albany, Indiana

Room 320

THURSDAY

Free T-shirts—  
Stop by the  
Member Showcase  
to learn how  
to get one!



8:00 A.M.–9:00 A.M.

12

## Geometry in the Community: Using Local Contexts to Ground Learning

(6–8) Session

From the shapes in local architecture to the coordinate grid and angles formed by city streets, geometry is all around us. Instead of exploring geometry as an abstract concept or thinking about it in imaginary contexts, learn how to give your students a “home field advantage” by situating core geometric concepts in their daily lives.

**Emily Magee**

University of Pennsylvania, Philadelphia, Pennsylvania

**Caroline Ebby**

University of Pennsylvania, Philadelphia, Pennsylvania

**Nina D. Hoe**

University of Pennsylvania, Philadelphia, Pennsylvania

Room 414

13

## Graphing across the Curriculum

(6–12) Session

Graphing technology can do more than produce graphs easily. We can use it to teach mathematical concepts visually for understanding. Survey students using free internet tools or clickers to make the data meaningful. Use graphs to help students make connections among mathematical concepts and model the real world.

**Linda Treilman**

Mercer County Community College, West Windsor, New Jersey

Room 408/409

14

## Making Students' Thinking Visible

(6–12, Research) Session

Research on effective classrooms shows that visible thinking weaves throughout teachers' planning and presentation, giving teachers a variety of teaching strategies. What are visible thinking's benefits? What classroom activities make students' thinking visible? Creating such activities is crucial to closing the achievement gap.

**Don Balka**

Saint Mary's College, Notre Dame, Indiana

Room 402

15

## TI-Nspire vs. TI-89 in Calculus

(9–12, Higher Education) Session

This presentation will focus on comparing the TI-Nspire and TI-89 calculators when used for classroom activities in calculus, with particular emphasis on assessing student understanding when using each calculator.

**Marlena Herman**

Rowan University, Glassboro, New Jersey

**Paul Laumakis**

Rowan University, Glassboro, New Jersey

Room 314

16

## A Question of When for Beginning Mathematics Teachers

(Higher Education, Preservice and In-Service, Research) Session

The presenters will discuss research methods, data and analysis from an empirical study conducted regarding when beginning mathematics teachers report learning attributes of successful teaching. Participants from two teacher education programs will offer a reflection for teacher educators on how to prepare successful teachers.

**Nicholas H. Wasserman**

Marymount School of New York, New York, New York

**Edward Ham**

Ph.D. Candidate, Teachers College, Columbia University, New York, New York

Room 420

8:30 A.M.–9:30 A.M.

ew 17

## Do You Have the Right Stuff for Science, Technology, Engineering, and Mathematics (STEM) Leadership?

(General Interest) Exhibitor Workshop

See if you have the “right stuff.” Join Dr. Meghan Marrero, director of curriculum for U.S. Satellite Lab, in an activity from Connections to Earth and Space Science, a Course in Endeavor, an online professional development experience that offers a STEM education certificate endorsed by Teachers College of Columbia University and NASA.

**Houghton Mifflin Harcourt**

Boston, Massachusetts

Room 321

8:30 A.M.–9:30 A.M.

**ew 18**

## CCSS: Aligned Supplemental Curricula for Mathematically Talented Students

**(K–5) Exhibitor Workshop**

Support advanced mathematics students in grades K–5 with Project M<sup>2</sup>, Mentoring Young Mathematicians and Project M<sup>3</sup>, Mentoring Mathematical Minds. These units increase math achievement and foster greater interest in mathematics through investigations aligned to Common Core State Standards (CCSS) mathematical practice and content standards.

Kendall Hunt Publishing Co.  
Dubuque, Iowa

Room 315

**ew 18.1**

## The Interactive Whiteboard and the Common Core Mathematical Practices in an Inquiry-Based Classroom

**(General Interest) Exhibitor Workshop**

Through example whiteboard activities, participants will investigate strategies for teaching, supporting, and recognizing the Common Core Mathematical Practices in their classroom, developing a further understanding of the Math Practices along the way.

Pearson  
Upper Saddle River, New Jersey

Room 313

8:30 A.M.–10:00 A.M.

**19**

## Examining Geometric Thinking in Young Children: The Shape of Things!

**(Pre-K–2) Gallery Workshop**

Join in as we move, build, and investigate to develop geometric thinking. Participants will try dynamic activities designed to engage young learners in geometric thinking. They will examine students' understandings and misconceptions and take away detailed, classroom-tested, ready-to-use activities addressing big ideas in geometry.

Trena Wilkerson  
Baylor University, Waco, Texas

Room 418

**20**

## I.M.P.A.C.T. Math

**(Pre-K–2) Gallery Workshop**

Have you ever gone math bowling? Ever do the ice cube shake? How about played popsicle math? These easy, hands-on, inexpensive math projects, and many more, will have your students asking for more. Learn how to integrate technology and receive practical, creative ways to reach your students.

Kimberly D. Mueller  
Board of Directors, National Council of Teachers of Mathematics; Lumberton Township School District, Lumberton, New York

Room 411

**21**

## Engaging All Children with Number Sense and Problem Solving

**(Pre-K–5) Gallery Workshop**

Speaker will offer strategies, including use of manipulatives, to develop number sense and problem solving skills. She will demonstrate the power of mathematical discourse to develop concepts, reasoning and vocabulary. She will engage attendees with activities to develop place value, patterns, estimation, fractions and problem solving.

Donna L. Knoell  
Consultant, Shawnee Mission, Kansas

Room 308/309

**22**

## Promoting Critical Thinking in Computation through Problem-Based Assessments

**(Pre-K–5) Gallery Workshop**

Problem-based assessments naturally differentiate while allowing students to construct, apply, and validate their own thinking during everyday instruction. The speaker will offer practical ideas, advice, sample problems, and strategies for incorporating critical thinking into the primary school classroom.

Courtney K. Baker  
George Mason University, Fairfax, Virginia

Room 404

THURSDAY

8:30 A.M.–10:00 A.M.

23

## Using Base-Ten Blocks in Elementary School Education

(Pre-K–5) Gallery Workshop

Research shows that children learn mathematics best exploring it using concrete materials and understanding the concepts before representing them symbolically. This presentation demonstrates this method for teaching multidigit addition, subtraction, multiplication, and division with whole numbers and decimal fractions by using base-ten blocks.

**Gary Christie**  
Baldwin-Wallace College, Berea, Ohio

Room 401

24

## Developing Rounding Sense

(3–5) Gallery Workshop

Why is rounding a difficult skill for students to master? Most students can quote a rounding rule from memory, but yet they don't understand the concept. Participants will explore hands-on alternatives to the rounding rule that will increase students' conceptual understanding and help them make sense of the rounding process.

**Cindy Baird**  
Hampton City Schools, Hampton, Virginia

**Laura Bitto**  
College of William and Mary, Williamsburg, Virginia

Room 417

25

## Cultivating Algebraic Thinking

(6–8) Gallery Workshop

Beginning with pairs of sequences, empower your students as they construct linear functions, determine  $y$ -intercepts, and make connections among sequences, formulas, and four-quadrant graphs. You will leave with a host of materials and strategies to employ right away.

**Eric M. O'Brien**  
Bellmore Schools, Bellmore, New York

Room 312

26

## Math for All Seasons

(6–8) Gallery Workshop

This workshop will show you motivational ways to integrate mathematics into traditional and nontraditional holidays. Discover hands-on activities that will make your classroom come alive all year long. Students will learn that mathematics is fascinating, exciting, and meant to be enjoyed. Handouts will be available.

**Diane McKeen**  
Cinnaminson School District, Cinnaminson, New Jersey

Room 302

27

## Deal or No Deal: Fair, or Not Fair?

(9–12) Gallery Workshop

Participants will calculate mathematical measures of mean, median, expectation, and fairness, to analyze the offers from the banker in the game show *Deal or No Deal*, predicting offers as the game progresses until the final deal is accepted.

**Jason Gershman**  
Nova Southeastern University, Fort Lauderdale, Florida

Room 412

28

## Mathematical Models of Falling Dominoes

(9–12) Gallery Workshop

Participants investigate the dynamics and mathematical models of toppling dominoes including the optimum distance that dominoes topple at the fastest rate, a "Domino Chain Reaction" and a "Domino Effect Cannon." Various technologies are used to collect and analyze data. Finally, a review of literature on the classic problem is presented.

**Hector Lopez**  
Rutgers University, New Brunswick, New Jersey

Room 301

8:30 A.M.–10:00 A.M.

 28.1

## Empowering Our Students' Voices: An Intervention Model for Professional Development

(Preservice and In-Service) Gallery Workshop

What does mathematical reasoning look like? How do we listen for a convincing argument? Engage in an intervention model for professional development that uses video data available through Rutgers University's Video Mosaic Repository. Explore examples that trace the development of a student's ideas over seventeen years.

**Maria Steffero**

Monroe Township Middle School, Monroe Township, New Jersey

**Alice S. Alston**

Rutgers University, New Brunswick, New Jersey

Room 322

30

## Preservice Teachers' Mathematics Content Knowledge, Confidence Levels, and Math Anxiety

(Preservice and In-Service) Gallery Workshop

The speaker will present findings from a study of preservice teachers' content knowledge, confidence levels, and math anxiety. The study's teachers included a large percent of first-generation college attendees and speakers of other languages, for whom English-reading ability, content knowledge, and anxiety interacted in interesting ways.

**Noureen A. Khan**

University of North Texas Dallas, Dallas, Texas

Room 419

Hear what's new from Exhibitors—attend an Exhibitor Workshop (see pg. 6)

9:30 A.M.–10:30 A.M.

31

## Progressive Math Initiative (PMI)

(General Interest) Session

Discover new strategies using technology and teacher-developed units through the PMI to increase students' achievement. The initiative uses Smart Notebook files and Smart Responders to increase students' engagement and achievement through formative assessment.

**Melissa Axelsson**

Egg Harbor City Community School, Egg Harbor City, New Jersey

**Heather Henderson**

William Allen Middle School, Moorestown, New Jersey

Room 420

32

## Women and Mathematics: Examining Experience and Perspective

(General Interest, Research) Session

This presentation will showcase implications from the perspectives about, and experiences in mathematics of, successful female academics as they mentor and influence female students. The speakers will compare these implications with current research about women in mathematics.

**Candace D. Joswick**

Ohio State University, Columbus, Ohio

**Sarah Gilchrist**

Ohio State University, Columbus, Ohio

Room 410

33

## Building Links between Addition and Subtraction: Concepts and Number Facts

(Pre-K–2) Session

Addition and subtraction are closely linked. This session will demonstrate strategies that can help reinforce the connection between the operations and develop flexible thinking. In particular the speaker will show practical ways to develop number facts for both operations by using visual materials and games.

**James L. Burnett**

ORIGO Education, Saint Charles, Missouri

Room 314

THURSDAY

9:30 A.M.–10:30 A.M.

34

### Storybook Characters in the Primary School Mathematics Classroom

(Pre-K–2) Session

Using any storybook, primary grade teachers can learn a process of entering into the story to create problems using the characters, setting, and story line. The speakers will share sample problems from storybooks along with resources to help participants create their own problems.

**Jane Wilburne**

Pennsylvania State University Harrisburg, Middletown, Pennsylvania

**Jane B. Keat**

Pennsylvania State University Harrisburg, Middletown, Pennsylvania

Room 402

35

### Math Learning Centers: Something for Everyone

(Pre-K–5) Session

In reading, we group kids by ability at the earliest ages. Why not in math? Group learning combined with well-designed activities can teach, challenge, and inspire students with diverse abilities and learning styles. See how carefully planned math centers can help you meet the needs of all your students.

**Greg Tang**

Creative Smarts Inc., Cambridge, Massachusetts

Room 305/306

36

### Mathematics Integrated across the Disciplines and Enhanced with Technology

(3–5) Session

Experience how to integrate mathematics activities with other disciplines such as science, language arts, art, and social studies, enhanced with technology, especially with interactive whiteboards.

**Maria Diamantis**

Southern Connecticut State University, New Haven, Connecticut

Room 408/409



37

### Powerful Strategies to Get Every Student Thinking, Doing, and Talking Math

(3–5) Session

Experience ready-to-use strategies that enhance mathematics teaching and learning for every student, especially English language learners and those in special education. These strategies will actively engage students in thinking, speaking, and doing mathematics to improve instruction and assessment.

**Jennie M. Bennett**

NUMBERS Mathematics Professional Development, Houston, Texas

Room 319



38

### The Strip Model, Word Problems, and Students with Learning Disabilities

(3–5) Session

This session will present results from a teaching experiment in which 21 grades 2–5 students with learning disabilities demonstrated extraordinary success solving addition-and-subtraction word problems using Singapore Math's strip drawing heuristic. Come hear our approach and their story!

**Robin O'Dell**

Buffalo State College, Buffalo, New York

**Elizabeth Wright**

Daemen College, Buffalo, New York

Room 320



Photos Courtesy of the Atlantic Convention & Visitors Bureau

9:30 A.M.–10:30 A.M.



40

### Learn↔Reflect Kickoff: Teaching Number Sense to the iGeneration

(General Interest) Session

This session will examine how to engage, motivate, and teach the iGeneration (the Internet Generation). Participants will receive videos, Web sites, social networking, and motivational strategies for students which can lead to building better number sense and facility with rational numbers.

**Eric Milou**

Rowan University, Glassboro, New Jersey

Room 403

41

### Making Mathematics Explicit

(6–8) Session

Hiebert and Grouws's research states that attending explicitly to concepts while teaching influences students' mathematics learning. Participants will work through several middle school level problems, share solutions, make connections, and make the mathematical concepts explicit.

**Mary Buck**

CORE, Berkeley, California

Room 421

42

### Building Students' Understanding of Mathematics through Reasoning and Proof

(9–12) Session

Although high school mathematics, during instruction and assessment, sometimes short-changes reasoning and proof, they can furnish a revealing portrait of students' understanding. Participants will evaluate samples of students' logical arguments and proofs from algebra, geometry, and number theory and explore strategies that promote reasoning and proof.

**Bob Cunningham**

College of New Jersey, Ewing, New Jersey

**Katelyn Goodman**

College of New Jersey, Ewing, New Jersey

Room 318

43

### Reclaiming Lost Ground: Research- Based Interventions for Underprepared Algebra Students

(9–12) Session

Today, all students must succeed in algebra, including those who are underprepared. These students may need more time in algebra, but time alone is not sufficient. Learn about comprehensive, research-guided strategies and resources from mathematics learning, literacy, social psychology, and special education that help underprepared students.

**James Lynn**

Learning Sciences Research Institute, University of Illinois at Chicago, Chicago, Illinois

**Diane J. Briars**

National Council of Supervisors of Mathematics, Pittsburgh, Pennsylvania

Room 415

44

### Teaching Sampling Distributions in the Statistics Classroom

(9–12) Session

Statistics students routinely have difficulty with the concept of sampling distributions. The speakers will describe activities that use various levels of technology to teach the concept. Participants will learn how to increase students' understanding of it.

**Doug Tyson**

Central York School District, York, Pennsylvania

**Michael A. V. Costello**

Bethesda-Chevy Chase High School, Bethesda, Maryland

Room 414

THURSDAY

**Extra, Extra...**  
Pick up your copy of the  
*Program Updates* at the  
Registration Area.



10:00 A.M.–11:00 A.M.

ew 45

### Attaining Success for Students and Teachers Using Britannica SmartMath!

(K–8) Exhibitor Workshop

Participants will engage in lively, web-based interactive practice and assessment for students in grades K-8. Strengthen mathematical skills of all learners while using adaptive tools that allow teachers to differentiate, assess, track, and evaluate in real-time. Students *enjoy* doing math at home and in the classroom.

Britannica Digital Learning  
Chicago, Illinois

Room 315

ew 45.1

### enVisionMATH Common Core: What Does Teaching through Mathematical Practices Look Like?

(General Interest) Exhibitor Workshop

Through activities in this workshop, participants will develop an understanding of each of the Standards for Mathematical Practice and how various types of learning tasks and questioning strategies can engage students in order to develop understanding and proficiency in mathematics.

Pearson  
Upper Saddle River, New Jersey

Room 313

ew 45.2

### Mathematical Practices in the NSF, K–5 Think Math! Program

(K–5) Exhibitor Workshop

Mathematical Practices in *Think Math!* pervade the entire program in age-appropriate ways. The program articulates the mathematical habits of the mind that are articulated in the program that develop precisely the kind of mathematical practices described in the Common Core State Standards. This workshop illustrates examples of the eight mathematical practices. Resource packet provided.

School Specialty Math and Intervention  
Nashua, New Hampshire

Room 321

10:30 A.M.–12:00 P.M.

46

### Just Let Me Survive Today: Math Classroom Management and Motivation

(Preservice and In-Service) Gallery Workshop

Through a unique combination of games, incentives, a structured system of rules, humor (math dancing, among much else), brain-based study strategies, and traditional techniques, attendees will learn how to motivate and manage their students so that they enjoy class and improve their exam results.

Mark Richman  
Maplewood Board of Education, Maplewood, New Jersey

Room 312

47

### Math Explorations: Developing Numeracy through Play

(Pre-K–2) Gallery Workshop

Learn how early learners develop visual representations of our number system's digits through playing with puzzles. Understand the stages that children go through as they learn to count. Play with materials developed for learning about our base-ten number system as we celebrate the importance of the number ten for early learners.

Aldo Bacallao  
Henry County Schools, McDonough, Georgia

Room 401

 48

### RtI: Ready to Inspire

(Pre-K–2) Gallery Workshop

Response to Intervention (RtI) requires thoughtful planning to ensure that all students have opportunities to learn and succeed in the classroom. This interactive workshop will include hands-on activities and games, with references to children's literature, that will make you ready to inspire your students in the classroom.

Donna Long  
Houghton Mifflin Harcourt, Indianapolis, Indiana

Room 417

10:30 A.M.–12:00 P.M.

49

## Domino Games: Connecting the Dots for Primary School Students

(Pre-K–5) Gallery Workshop

Dominoes are a staple found in most primary school classrooms. Come prepared to play games that teach number sense, patterning, operations, place value, and problem solving. Receive gameboards and excellent ideas for centers, backpacks, and after-school, regular, English as a Second language, and Title 1 programs.

Allison Riddle

Davis School District, Salt Lake City, Utah

Room 412

 50

## Differentiation and Accommodation for Students with Special Needs

(3–5) Gallery Workshop

This presentation will discuss differentiation and accommodation in lesson planning and teaching for students with special needs, especially techniques for teaching rich mathematical tasks in probability and patterns.

James E. R. Beyers

College of New Jersey, Ewing, New Jersey

John DeRosa

College of New Jersey, Ewing, New Jersey

Room 419

51

## The Singapore Bar Model Method of Problem Solving

(3–5) Gallery Workshop

One of the most powerful features of Singapore math is the bar-model method for problem solving. Bar models allow students to represent word problems graphically to understand the operations needed to solve the problem. This session will solve problems using bar models, to examine how they can enhance learning in our classrooms.

Nancy Pavia

Scarsdale Public Schools, Scarsdale, New York

William Jackson

Scarsdale Public Schools, Scarsdale, New York

Room 301

52

## Eureka! I Found It! Ways to Assess All Students Creatively

(3–8) Gallery Workshop

The speaker will share a unique, interesting way to present the standards—history! Learn about famous mathematicians' ideas and ways to engage your students in hands-on activities related to their work. A resource CD of biographies, teacher-tested activities, teachers' resources, and assessment tools will be provided.

AnneMarie Hornyak

Mendham Township Board of Education, Brookside, New Jersey

Room 322

 53

## My Teacher Writes in Secret Code! I Don't Get It!

(3–8) Gallery Workshop

Manipulatives are a key to understanding. Strategies for using manipulatives foster learning and help students see what  $2b^2$ ,  $3br$ , and  $x+2y$  really mean. A concrete foundation for understanding math notation and symbols will demystify what students see as “that code only my math teacher knows.” Let's help our students crack the secret code!

Janie L. Zimmer

Research-Based Education, Reading, Pennsylvania

Robert O. Jesberg

Consultant, Chalfont, Pennsylvania

Room 404

 54

## Successful SMARTBoard® Lessons Combine the Dynamic with Whole-Class Participation

(3–8) Gallery Workshop

Sometimes lessons with interactive whiteboards end-up as “watch and do” lessons for all but a few students. Participants will complete sample activities and learn how to ensure every student's involvement when they incorporate this great technology into their classrooms.

Paul Lawrence

LL Teach, Inc., Bridgewater, New Jersey

Room 308/309

THURSDAY

10:30 A.M.–12:00 P.M.

55

**Go for the Gold!****(6–8) Gallery Workshop**

Explore the golden ratio and golden rectangle by discovering its existence in the human body, nature (Fibonacci sequence), everyday objects (cereal boxes, credit cards, logos), art (*Mona Lisa*, *The Last Supper*), architecture (the Parthenon, pyramids), music (violin construction, piano), and more.

**Sandra Marie Miller**

Pennridge School District, Perkasie, Pennsylvania

Room 411

56

**An EXCEL-ent Way of Creating Interactive Applets****(6–12) Gallery Workshop**

Many students are visual learners. Explore Excel 2003 and 2007 and their viabilities as visual learning devices. Participants should have an intermediate knowledge of Excel and are encouraged to bring their laptops, to make applets that will cover topics in prealgebra, algebra, and calculus. Resources will be available online.

**Elisa R. Napierala**

Nazareth College of Rochester, Rochester, New York

**Caitlin VerSchneider**

Nazareth College of Rochester, Rochester, New York

Room 418

57

**Problem Solving in Geometry for 2011****(9–12, Preservice and In-Service) Gallery Workshop**

Warm up with some problem-solving classics, among them the “bookworm” and “spider and the fly” problems. Explore a few new ones, then finish with a famous problem posed by Polya. Participants will work in cooperative groups and present their solutions.

**Michael Serra**

Consultant, San Francisco, California

Room 302

11:00 A.M.–12:00 P.M.

58

**From Standards to Actions: Implementing the Common Core State Standards****(General Interest) Session**

Learn about the latest resources from NCSM that support implementing the Common Core State Standards for Mathematics (CCSS-M). Resources include example tasks and instruction that promote students’ proficiency in mathematical practices and a tool for analyzing instructional materials’ alignment to CCSS-M content and mathematical practices.

**Diane J. Briars**

National Council of Supervisors of Mathematics (NCSM), Pittsburgh, Pennsylvania

Room 403

59

**Power Your Math Instruction with Meaningful Contexts and Visual Models****(General Interest) Session**

Real-world contexts interacting with illustrations and graphic representations communicate mathematical concepts to students and bring math to life. The presenter will define visual learning, outline skills associated with it, describe its benefits for mathematics teaching, and share current visual learning research in mathematics education.

**Stuart J. Murphy**

Author, Boston, Massachusetts

Room 318

60

**Raising Scores and Raising Eyebrows: Immediate, Positive Classroom Change****(General Interest) Session**

Teachers lose 5–9 hours a week dealing with minor misbehavior, which translates to low test scores, high staff turnover, and a negative atmosphere in your school. It doesn’t have to be that way! Learn effective classroom management strategies that will end student-teacher power struggles and dramatically improve academic performance.

**Katrina Ayres**

Time to Teach!, Hayden Lake, Idaho

Room 410

11:00 A.M.–12:00 P.M.

 60.1

### Math Talk!

(Pre-K–2) Session

We want our students to be critical thinkers and successful problem solvers and mathematicians. The speaker will share ideas, calculator games, and activities that encourage your students to perform at the higher levels of Bloom's taxonomy.

**Mickey Jo Sobierajski**

Past President, Association of Mathematics Teachers of New York, Cato, New York

Room 320

61

### Math and Literature: A Marriage Made in Books

(Pre-K–5) Session

Discover how children's books can teach mathematics. See examples of how to use children's books to teach adding, multiplying, patterns, measurement, and data graphing. Participants will receive a list of children's books and a set of classroom activities based on children's literature.

**Jadwiga Domino**

Medaille College, Buffalo, New York

Room 402

 62

### Using Calculators and Other Educational Technology Effectively with Elementary School Children

(Pre-K–5) Session

The speaker will offer instruction strategies that develop and extend number sense and number operations, emphasizing number patterns, place value, estimation skills, and solving word problems using real-life applications. She will demonstrate effective calculator and technology implementations. Handouts will be available.

**Donna L. Knoell**

Consultant, Shawnee Mission, Kansas

Room 415

 63

### Finally! Math for My SMART Board

(3–8) Session

Getting the most out of your board used to mean drawing a big circle and tapping it in the middle. New math tools with prepared lessons and activities for the SMART Interactive Whiteboard are changing this. Your classes will coming full circle—with no tapping in the middle.

**Kathy Robinson**

Miss Sally School, Durant, Oklahoma

Room 314

64

### Seeing and Doing Geometry: Gain a Deeper Understanding with Manipulatives

(3–8) Session

Participants will try engaging, interest-building activities that foster greater conceptual understanding and skill recall of two- and three-dimensional geometric concepts. Learn how to make inexpensive manipulatives while incorporating effective questioning to enrich students' understanding of geometric vocabulary.

**Dawn M. Boyer**

Byram Township Board of Education, Byram, New Jersey

**Elaine Lipani**

Kearny Board of Education, Kearny, New Jersey

Room 414

65

### The Math behind the Market

(6–8) Session

Preparedness for the new century means a functional grasp of mathematics and a fundamental understanding of personal finance. Participation in a real-world investment simulation addresses both needs. Attendees will discuss maintaining students' interest in math learning through meaningful, real-world applications.

**Vincent Young**

SIFMA Foundation for Investor Education, New York, New York

Room 405/406

THURSDAY

11:00 A.M.–12:00 P.M.

67

### Students as Mathematicians: A Modeling Approach

(6–12) Session

When we expect students to behave as mathematicians, they learn to address meaningful problems while developing the necessary mathematical tools in an environment of collaboration, investigation, modeling, and idea sharing. The speaker will explore open-ended models from initial scenario to final resolution. All activities will be available.

Greta Mills

Hanover High School, Hanover, New Hampshire

Room 305/306

LOR 68

### Using Screen-Capture Movies to Assess Quadrilateral Constructions in Sketchpad®

(6–12) Session

Students' sketches of quadrilateral constructions convey much information about the students' understanding of quadrilateral properties and how those properties drive sound constructions. But how do you document the decisions, missteps, and self-corrections that are lost in the final sketch? Make screen-capture movies of the construction process!

Annie Fetter

Math Forum @ Drexel University, Philadelphia, Pennsylvania

Debbie Wile

Wallingford Elementary School, Wallingford, Pennsylvania

Room 408/409

LOR 69

### Housekeeper and the Professor: Teaching Mathematics with Fiction and Film

(9–12) Session

*The Housekeeper and the Professor*, a novel by Yoko Ogawa, and *The Professor's Most Beloved Equation*, a movie based on the book, tell a touching story about memory, family, and a boy with a flat head named Root who grows up to be a math teacher. This workshop will appeal to teachers wanting to use fiction and film to teach algebra and geometry.

Ron Lancaster

Ontario Institute for Studies in Education, University of Toronto, Toronto, Canada

Room 421

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[www.mualphatheta.org](http://www.mualphatheta.org)

11:00 A.M.–12:00 P.M.

70

## Test Paper to Chalk Board: Analyzing Developmental Algebra Responses

(Higher Education) Session

Come learn valuable information about college students' algebraic thinking! An analysis of assessment and survey responses has discovered similar and distinct patterns among students' responses to algebra problems. This semi-interactive presentation will offer insight into some best practices for algebra teaching.

**Nathan Alexander**

Teachers College, Columbia University, New York, New York

**Ronny Leong**

Teachers College, Columbia University, New York, New York

Room 420

11:30 A.M.–12:30 P.M.

ew 70.1

## Conquer Times Tables in Only Three Weeks, Guaranteed!

(K-8) Exhibitor Workshop

A research-based, multisensory program teaches times tables in three weeks, guaranteed! If the class average isn't 90 percent on final test, you get a 100 percent refund. Addresses all four learning styles. Regular, special ed, gifted, Response to Intervention. Tons of fun! No training! Sister products: Fishin' for Addition, Subtraction in Action, Divide 'n' Slide, ClockWise Fractions, and Equivalency. Visit [www.rhymesntimes.com](http://www.rhymesntimes.com) and [www.clockwisemath.com](http://www.clockwisemath.com).

**Rhymes 'n' Times**

Lewisville, Texas

Room 315



ew 70.2

## Pearson's New *digits* Program: Where Math Clicks!

(6–8) Exhibitor Workshop

Experience *digits*, the only Common Core middle grades math curriculum built for today's digital students with all interactive whiteboard lessons, online assessments, robust Response to Intervention, and automatic grading and reporting. Find out how *digits* harnesses the power of technology to optimize your time and individualize their learning, both in and out of the classroom.

**Pearson**

Upper Saddle River, New Jersey

Room 313

12:30 P.M.–1:30 P.M.

71

## Assessing Students on the Common Core: Your Next Steps

(General Interest) Session

This session will give an update on the PARCC and SMARTER Better Balanced Assessment consortia as they produce math assessments for use by 2014–15. The speaker will recommend uses and interpretation to improve your students' learning. Give your feedback during test development, through your school, district, and state.

**Henry Kepner**

Past President, National Council of Teachers of Mathematics; University of Wisconsin—Milwaukee, Milwaukee, Wisconsin

Room 421

ew 72

## Designing a Web Site to Support Students' Learning and Communication

(General Interest) Session

Learn and share ideas about designing a Web page with appropriate content to support a successful learning environment. Ideas will include meeting students' needs, communicating with parents, and simplifying classroom procedures for the teacher and students.

**Kimberly Summey**

East Tennessee State University, Johnson City, Tennessee

Room 420

THURSDAY

12:30 P.M.–1:30 P.M.

73

### How to Support Teachers' Management of Interactive Mathematics Classrooms

(General Interest) Session

Managing an interactive mathematics classroom could be a challenging task for any teacher. This session will share preliminary findings from research regarding how classroom management can affect the cognitive demand level of mathematical tasks in urban classrooms. It will also offer some initial supportive concepts.

**Candace Barriteau Phaire**

New York University, New York, New York

Room 305/306

74

### More than Fifty Centuries of Computation in a Twenty-first-Century Format

(General Interest) Session

Progress from number names to digits, body parts tally sticks, coins, numerals, calculi, sand tables, abacuses, Napier's bones, and slide rules. Examine math history digitally from the Sumerians to Egyptians, the Middle Ages, and the Renaissance in a format that not only is appropriate to a twenty-first-century classroom, but also enhances it.

**Agnes Azzolino**

Mathnstuff.Com, Keyport, New Jersey

Room 403

75

### Using Designed Artifacts and Symbolic Tools to Teach Arithmetic to Kindergartners

(General Interest, Research) Session

The study focuses on developing sociomathematical authority in young children, in teaching them basic arithmetic, to explore solutions, and to view mathematics as a sense-making activity through physical materials, verbal expression, group work, encouragement and self-validation, and inquiry.

**Rupam Saran**

City University of New York, New York, New York

Room 405/406

 76

### The New Kid Magnet: SMART Board™ Activities for Grades K–2 Classrooms

(Pre-K–2) Session

In a DSI and iPod world, this presentation connects with our smallest, youngest tech-savvy students. Learn how to integrate practical, creative SMARTboard lessons to make your math lessons come alive and grab *every* child's attention.

**Kim Mueller**

Board of Directors, National Council of Teachers of Mathematics; Florence L. Walther School, Lumberton, New Jersey

**Cynthia A. Grovatt**

Florence L. Walther School, Lumberton, New Jersey

Room 408/409

77

### Preservice Teachers' Beliefs about Constructivist Mathematics Education

(Pre-K–2, Preservice and In-Service) Session

This presentation will focus on preservice teachers' knowledge of constructivism, exploring their views on the efficacy of constructivist practices in mathematics education. The speaker will discuss respondents' attitudes toward constructivism and examine the roles of respondents' age, program, academic level, and teacher's preparation experiences.

**Anne George**

Saint Xavier University, School of Education, Chicago, Illinois

Room 414

 78

### Developing Algebra, Number Sense, and Geometry through NCTM's Free E-Examples

(Pre-K–5) Session

Make your classroom come alive with NCTM's E-examples! From geoboards and tangrams to hundreds boards and interpreting graphs, these newly revised, interactive applets demonstrate multiple representations, explore connections, and communicate understanding. Leave prepared to use guided reflections on Monday!

**Sarah Marie DeLeeuw**

National Council of Teachers of Mathematics, Reston, Virginia

Room 319

12:30 P.M.–1:30 P.M.

79

## Essential, Immediate Actions to Implement the Common Core State Standards

(Pre-K–5) Session

What are the most important actions to take now to implement the content and mathematical practices of the CCSS, even though the related assessments will not be in place until 2014? Learn about crucial differences between CCSS and current practice and how to modify your instruction to meet these new expectations.

**Diane J. Briars**

National Council of Supervisors of Mathematics,  
Pittsburgh, Pennsylvania

Room 318

LOR 80

## Beyond Paper: Using Technology to Extend the Lesson

(3–5) Session

The interactive session will encourage the extension of mathematical concepts through nontraditional avenues such as writing assignments, interactive boards, forums, and classroom systems. This session will specifically focus on students having the opportunity to communicate orally and through print.

**Nicole Hamilton**

Archipelago Learning, Dallas, Texas

Room 415

81

## Using Lab Reports to Increase Interest in Algebra 1 Class

(6–8) Session

Experience firsthand how lab reports have successfully increased interest in Algebra 1 classes while providing real-life, mathematical modeling experiences for students. Discuss writing and grading reports, as well as implementation strategies. Bring your calculator. Examples will be distributed.

**Willard H. Blaskopf, Jr.**

Newark Academy, Livingston, New Jersey

Room 402

LOR 82

## Space Math@NASA and NASA eClips™: Real-World Algebra Connections

(6–12) Session

Do your students ask *why* they should learn algebra and *when* they might use it? Free Space Math@NASA and NASA eClips™ video segments answer these questions by building real-world connections and relevance to algebra content. You will also learn how to power up your lessons using other Web 2.0 tools, such as online models and simulations.

**Sten Odenwald**

NASA Goddard Space Flight Center, Greenbelt,  
Maryland

**Elaine Lewis**

NASA Goddard Space Flight Center, Greenbelt,  
Maryland

**Sharon Bowers**

National Institute of Aerospace, Hampton, Virginia

Room 314

83

## I See It, Now I Understand and Can Solve It

(9–12) Session

Students struggle solving application problems involving algebra concepts. Come join a session that will offer multiple, visual approaches to building algebra concepts for all students. Each participant will receive a preview CD and sample lessons.

**Brenda J. Morgan**

Houston Independent School District, Houston, Texas

Room 320

THURSDAY

Stay Connected!  
Check us out on  
Twitter and  
Facebook.

12:30 P.M.–1:30 P.M.

COR 84

## How Graphing Technology Changes Teachers' Questioning

(9–12, Preservice and In-Service) Session

Current graphing technology allows students to explore mathematical concepts by examining actions on the screen and observing consequences. As a result, teachers' questions must aim to elicit students' thinking and promote conversation among students. The speaker will share questioning techniques and sample lessons from algebra through calculus.

Daniel Ilaria

Mahwah Public Schools, Mahwah, New Jersey

Room 410

12:30 P.M.–2:00 P.M.

85

## Transforming Money, Eating Away Time, and Flip-Flop Operations Develop Excited Learners

(Pre-K–2) Gallery Workshop

Transformers, moveable numbers, PlayDough, and snacks will illustrate hands-on approach that help every student develop concepts of numbers, money, time, and measurement. English as a Second Language and exceptional students, or anyone, will enjoy these activities that transform reluctant learners into avid mathematicians.

Kathryn Robinson

WriteMath Enterprises, Inc., Valrico, Florida

Room 302

86

## The Most Powerful Model You've Probably Never Heard Of

(Pre-K–2, Preservice and In-Service) Gallery Workshop

Are you frustrated with your students' lack of number sense? A tool from the Netherlands is starting to make its way into the United States that can help you and your students. This interactive session will focus on using a rekenrek (aka arithmetic rack) to help teachers facilitate students' development of number sense.

Christina D. Tondevold

Mathematically Minded, Orofino, Idaho

Room 308/309

87

## Shuffling into Math: Primary School Math Games

(Pre-K–5) Gallery Workshop

Come prepared to play card and dice games that help your primary school students achieve success in numeration, operations, place value, and graphing. The speaker will share excellent take-home ideas, game boards, students' work samples, and more that work for regular, English as a Second Language, and after-school programs.

Jane Felling

Box Cars & One-Eyed Jacks, Edmonton, Canada

Room 418

88

## Games: An Essential Component for Differentiation and Center Activities

(3–5) Gallery Workshop

Participants will play, analyze, and differentiate games that provide single- and cross-strand conceptual practice while promoting problem solving. Topics include regrouping, place value, fractions, decimals, and algebraic thinking. Game implementation techniques will be modeled, and rules and relations materials will be distributed.

Suzi Streppone

LL Teach, Inc., Bridgewater, New Jersey

Room 411

90

## Illustrating Fraction Concepts and Vocabulary for All Students

(3–8) Gallery Workshop

Using a concrete-representational-abstract sequence, participants will illustrate and model essential fraction concepts and vocabulary as they create fraction concept cards and quantity recognition sheets. Participants will solve fraction problems with manipulatives as they learn new strategies for fraction instruction.

Marilyn Zecher

Multisensory Training Institute, Dyslexia Education Center, Rockville, Maryland

Room 322

Looking for lessons,  
activities, and teacher  
resources? Check out  
[www.nctm.org](http://www.nctm.org)

12:30 P.M.–2:00 P.M.

 91

## Wading Pools and Water Wings for Problem Solvers

(3–8) Gallery Workshop

Teaching kids to be swimmers by throwing them into the deep end and then walking away doesn't always succeed. Teaching them to be problem solvers by giving them challenging problems and leaving them to "sink or swim" has similar results. Support strategies help *all* students succeed in problem solving. Get your mathematical water wings here!

**Mary Altieri**

Math Olympiads for Elementary and Middle Schools, Bellmore, New York

Room 312

91.1

## Origami and Mathematics: Perfect Together

(6–8) Gallery Workshop

According to the Common Core State Standards, students will learn ratios, fractions, area, and relationship between shapes in gr. 6/7. They will move on to congruence and similarity of 2-d shapes and delve in depth into studying triangles in gr.8. Participants will explore how to use origami to help students learn and retain these concepts.

**Patsy Wang-Iverson**

Gabriella and Paul Rosenbaum Foundation, Bryn Mawr, Pennsylvania

Room 412

 92

## Activities to Help the Lower 50 Percent of Students Learn Algebra

(6–12) Gallery Workshop

Looking for methods and activities that will engage and reach the reluctant learner? Then this workshop is for you. The speakers will present several activities that will engage your students as they learn difficult algebraic concepts, including solving equations, writing linear equations from data, systems of equations, and others.

**Paul J. Weisse**

Appleton Area School District, Appleton, Wisconsin

**Thomas Strauss**

AMME, Inc., Fond du Lac, Wisconsin

Room 417

93

## Exceptional, Free Online Resources for the Middle Grades Classroom

(6–12) Gallery Workshop

Illuminations (<http://illuminations.nctm.org>) has new, improved resources for middle school. Participants will play Deep Sea Duel, an online game based on an *MTMS* article; explore discrete mathematics with the recently improved Graph Creator; attempt a brainteaser from our newsletter, *Bright Ideas*; and explore other lessons and activities.

**G. Patrick Vennebush**

National Council of Teachers of Mathematics, Reston, Virginia

Room 401

94

## Let's Get "Write" to the Common Core State Standards

(6–12) Gallery Workshop

How can we not only cover the Common Core State Standards but also reinforce them in and outside the classroom? By writing, of course. The speakers will discuss how to use writing in many different forms both to introduce students to the standards and to reinforce the knowledge they've learned.

**Douglas G. Smith**

Pittsgrove Township Board of Education, Elmer, New Jersey

**Corinne Kallman**

Bergen Community College, Paramus, New Jersey

Room 301

95

## Problem Solving, Reasoning, and Engagement with Mathematical Card Tricks

(6–12) Gallery Workshop

Participants will try to determine why certain card tricks work. They will learn the mathematics for the tricks and then discuss how to implement them in their courses and assess their effectiveness.

**James R. Matthews**

Siena College, Loudonville, New York

Room 419

THURSDAY

12:30 P.M.–2:00 P.M.

96

## We See Mathematics Everywhere, But How Can We Use It?

(9–12, Preservice and In-Service) Gallery Workshop

Textbooks and chapter projects often refer to mathematics in the world around us, yet they restrict examples to two-dimensional photographs and static representations. Participants will develop lessons, based on photographs and videos taken during this conference, using technologies that superimpose the mathematics directly onto images.

Mike Reiners

Christ's Household of Faith School, Saint Paul, Minnesota

Room 404

1:00 P.M.–2:00 P.M.

ew 97

## Mental Math with Fractions, Decimals, Percents, and Degrees

(K–8) Exhibitor Workshop

This *multisensory* program connects fractions, decimals, percents, and degrees to a clock face. Do mental math, compare fractions, convert them to decimals, add or subtract in your head, and master pie charts. Discover real-world applications for all four learning styles for regular, special and gifted education, and Response to Intervention. *No* training! [www.clockwisemath.com](http://www.clockwisemath.com)

ClockWise Fractions

Lewisville, Texas

Room 315

ew 97.1

## Navigating Your Way through the Fraction Story of the Common Core

(K–8) Exhibitor Workshop

One approach to the story of fractions is to build on students' understanding of counting and whole-number arithmetic and extend this previous knowledge to the study of fractions. This session will focus on conceptual understanding of the "knotty" topic of fractions, including connections to equal partitioning and unitizing. Video clips will be used to examining the conceptions many students have that allow them to complete some tasks successfully but that prove inadequate in other contexts.

Pearson

Room 262

2:00 P.M.–3:00 P.M.

98

## A Mathematical Carnival

(General Interest) Session

Step right up! Enter the wonderful world of recreational mathematics. The presenter will model enthusiastic teaching and presents mathematics in a spirit of play. You will receive a handout of activities that enhance NCTM standards and motivate students to become active learners. Come prepared to experience the beauty and fun of mathematics.

Charles B. Sonenshein

Wright State University, Dayton, Ohio

Room 403

 99

## Shaping Critical Thinking to Increase the Value of Differentiated Instruction

(General Interest) Session

Participants will learn about critical thinking and strategies that they can use in their inclusive classrooms.

Julie Norflus-Good

Ramapo College of New Jersey, Mahwah, New Jersey

Room 414

100

## What Is Different between U.S. Hands-On and Asian Cognitive Approaches?

(General Interest) Session

American grades 3–8 fraction curricula, along with standards, require using three models for hands-on exploration. The Asian curricular model, not emphasizing any particular fraction model, seems to produce greater cognitive development. Come discuss how North American educators can redesign curriculum along Asian approaches to rational numbers.

Hsuehi (Martin) Lo

Saint Cloud State University, Saint Cloud, Minnesota

Room 318

2:00 P.M.–3:00 P.M.

 101

## Building Algebraic Thinking for Pre-K–Grade 2

(Pre-K–2) Session

This session will share valuable strategies for building algebraic thinking through literature, songs, movement, and meaningful mathematical content. Participants will leave with practical strategies that model differentiation and higher-level thinking. The speaker will share her energetic, meaningful message about teaching content-intensive mathematics.

**Kim Sutton**

Creative Mathematics, Arcata, California

Room 314

 102

## Multiplayer Gaming and Math Fact Fluency

(Pre-K–5) Session

Ninety-seven percent of elementary school students play video games. If aspects of multiplayer gaming combined with educational content can transform learning. This presentation will demonstrate multiplayer multiplication games, results from an NSF study on multiplayer gaming and fact fluency, and ideas for classroom game integration.

**David Woodward**

Boulder Valley School District, Boulder, Colorado

Room 421

104

## Making Fractions Tow the Line

(3–5) Session

See how a group of fourth graders demonstrate their understanding of placing fractions on a number line. The session will discuss some results of a brief study and students' work as it guides teachers' instruction. Participants will receive samples of the activities and students' work.

**Shelly Heron**

Kent State University at Stark, North Canton, Ohio

Room 319

 105

## Beyond Good Teaching: Meeting the Mathematical Needs of English-Language-Learners (ELLs)

(3–5, Preservice and In-Service) Session

This presentation will showcase the upcoming book on mathematics and ELLs, focusing on describing the stages of second language development and implications for teaching elementary school mathematics. Video clips and lesson plans will illustrate examples of how to engage ELLs at different English proficiency levels in learning mathematics.

**Nora Ramirez**

TODOS: Mathematics for ALL, Tempe, Arizona

**Sylvia Celedón-Pattichis**

University of New Mexico, Albuquerque, New Mexico

Room 410

106

## Generating Students' and Teachers' Excitement for Mathematical Problem Solving

(3–8) Session

A “problem” is not a problem if it has an easy solution. Real problems must challenge appropriately, have multiple solution paths, and lead students to understand mathematical concepts better. Participants will discover ways that they and their students can become better problem solvers while preparing them for any assessment.

**Nicholas J. Restivo**

Mathematical Olympiads for Elementary and Middle Schools, Bellmore, New York

Room 405/406

107

## Geometry: Activities That Check for Understanding and Motivate

(6–8) Session

This session will explore important concepts using a variety of activities and questioning formats. The topics will be consistent with the Common Core State Standards, among them coordinate geometry, area, and perimeter, modified also for constructed-response questions.

**David Glatzer**

Retired, West Paterson, New Jersey

Room 320

THURSDAY

2:00 P.M.–3:00 P.M.

108

### Empowering Students through Reasoning and Sense Making: Video Clips and Tasks

(6–12) Session

This session will share examples and new developments in NCTM's ongoing high school initiative on reasoning and sense making. Participants will discuss video clips of students engaged in reasoning, students' work samples gathered with Live Scribe Pens, and a collection of newly developed reasoning tasks available on NCTM's Web site.

**J. Michael Shaughnessy**

President, National Council of Teachers of Mathematics;  
Portland State University, Portland, Oregon

**Daniel Chazan**

University of Maryland, College Park, Maryland

Room 402

LOR 109

### Gaining Perspectives of Generalizations Involving Transformations

(9–12) Session

Participants will rotate and reflect geometric figures using the Cartesian plane. They will use technology to gain insights and perspectives of the concepts that help make generalizations about specific transformations.

**Estella P. De Los Santos**

University of Houston—Victoria, Victoria, Texas

Room 420

LOR 110



### Technology and Mathematics: The Right Angle

(9–12) Session

Seven software pieces + 113 digital images + five grade levels + 29 ideas + 17 videos = 61 minutes of prime technology fun. Computer technology can do much more than answer math questions. It can pose them, thereby enticing students to investigate and play with mathematical ideas. "Aha!" moments abound.

**Frank Sobierajski**

The Math Place, Cato, New York

Room 408/409

111

### Students Using ProbeWare in Math and Science

(9–12, Higher Education) Session

This presentation on ProbeWare and its uses in the classroom will familiarize participants with the technology. The speakers will share ideas for projects that they have used with students, and the results and effect using ProbeWare has had on students' learning.

**Angie M. Morgan**

Ohio Valley University, Vienna, West Virginia

**Gordon L. Wells**

Ohio Valley University, Vienna, West Virginia

Room 305/306

2:30 P.M.–3:30 P.M.

ew 112

### CCSS: Aligned Mathematics for the Middle Grades

(6–8) Exhibitor Workshop

At last, a new middle grades curriculum in an engaging digital format that's also aligned to the Common Core State Standards (CCSS)! Math Innovations focuses on reasoning, sense making, questioning, and mathematical discourse while increasing students' conceptual understanding. Learn about the interactive eBook and integrated learning tools, including whiteboard activities, practice games, and more.

**Kendall Hunt Publishing Co.**

Dubuque, Iowa

Room 315

ew 113

### Mathematics Achievement: Essential Curriculum, Automatic Data, and Differentiated Instruction

(3–8) Exhibitor Workshop

Enhance and differentiate your instruction with state-specific online assessments, practice, and curriculum for grades 3–8. Take an exciting look at this new technology and an exclusive peek at how instantaneous scoring, real-time reporting, and actionable data can make a difference in your district.

**Triumph Learning**

New York, New York

Room 313

2:30 P.M.–4:00 P.M.

114

### 3, 2, 1, Blast Off! On a Mission to Create a Space Week

(Pre-K–2) Gallery Workshop

Learn about five hands-on math activities that incorporate mathematics with a Space twist, such as Alien Eyes, Tangram Rocket, and Alien Invasion, which promote number sense, geometry, and problem solving. Increase mathematical understanding and build enthusiasm toward learning math by incorporating activities about space.

**Kristen Appleby**

University of Florida, Gainesville, Florida

Room 322

115

### Let's Get Physical with Math on the Floor!

(Pre-K–5) Gallery Workshop

This very interactive session will introduce teachers to innumerable creative ways of exploring many concepts in all strands of math on a large, 100-square floor grid. The speaker will share fun, foolproof strategies for immediate implementation.

**Wendy E. Hill**

Retired, Huntsville, Canada

Room 412

116

### Area, Arrays, and Algorithms

(3–5) Gallery Workshop

Visual representations can help students improve their understanding of multiplication, division, and geometry. Experience games and hands-on concrete, pictorial, and symbolic activities, with a variety of geometric tools, that explore connections to number. Geometry can help students avoid multiplication mayhem and division disaster!

**Janet H. Caldwell**

Rowan University, Glassboro, New Jersey

Room 302

117

### Archaeology: Can You Dig It?

(3–8) Gallery Workshop

Archaeology digs offer many authentic math and multidisciplinary applications, including measurement, problem solving, and dimensional graphing. Participants will engage in hands-on activities, see a dig site setup, and leave with a complete unit.

**Patricia D'Agostino**

Edgemont Union Free School District, Scarsdale, New York

**Gerald Murphy**

Edgemont Union Free School District, Scarsdale, New York

Room 301



118

### Conceptual Systematic Intervention: Your Classroom

(3–8) Gallery Workshop

This session will focus on conceptual instruction strategies that develop mathematical understanding of fractions, through systematic instructional design that addresses your classroom's intervention needs. Participants will engage in hands-on activities, including games and technology, and receive handouts and materials.

**Carolyn M. Moore**

McGraw-Hill, Columbus, Ohio

Room 417

119

### How Muddy Is Your Windshield? Down-and-Dirty, Formative Assessments

(3–8) Gallery Workshop

Formative assessments hold the key to unlocking middle school students' potential for learning mathematics. This presentation will offer strategies for quickly assessing students' mathematical content knowledge, in order to make on-the-spot instructional decisions such as grouping, tiering assignments, and moving forward in the curriculum.

**Tiffany P. Barnett**

East Jackson Middle School, Commerce, Georgia

**Rachael W. Parr**

East Jackson Middle School, Commerce, Georgia

Room 308/309

Download the new NCTM  
Regional Conference App  
to your smart phone!  
[www.nctm.org/confapp](http://www.nctm.org/confapp)

2:30 P.M.–4:00 P.M.

120

### What Does It Mean to Be Average?

(6–8) Gallery Workshop

When you ask your students what the mean is, they say it's the average. When you ask students what an average is, they tell you that you to add all the numbers and divide by the total number of items. But what does average really mean? This session will explore hands-on activities that develop the concepts of mean, median, mode, and range.

**Kristi Grande**

Love of Learning Educational Services, LLC, Anchorage, Alaska

Room 404

 121

### Stories and Technology: Gateways into Mathematics for All

(6–12) Gallery Workshop

This workshop, through teacher-created stories, will explore using technology such as a SMARTboard, PowerPoint, and the CAST UDL Web site, to offer access to various mathematics concepts. The speakers will address specific strategies for diverse learners, including learning-disabled students and English-language learners.

**Karen Terrell**

Boston College, Chestnut Hill, Massachusetts

**Dennis DeBay**

Boston College, Chestnut Hill, Massachusetts

Room 419

122

### Fun with Functions: Active Learning Strategies

(9–12, Preservice and In-Service) Gallery Workshop

Learn how to have fun with functions by using in-class activities that make this abstract topic much more concrete. Participants will be engaged in a variety of hands-on activities which model different types of functions. Connections to technology will also be explored. Handouts will be provided.

**Revathi Narasimhan**

Kean University, Union, New Jersey

Room 401

123

### Public-Domain, Mathematical Software to Support Implementing the Common Core State Standards (CCSS)

(9–12, Preservice and In-Service) Gallery Workshop

This session will overview of the design features of and demonstrate CPMP-Tools, a suite of public-domain software that includes a computer algebra system, spreadsheet, and interactive geometry, data analysis, and discrete mathematics tools. The speakers will focus on problems that align with the CCSS.

**Christian R. Hirsch**

Western Michigan University, Kalamazoo, Michigan

**Beth E. Ritsema**

Western Michigan University, Kalamazoo, Michigan

Room 312

123.1

### A Professional Development Partnership to Promote Constructive Learning

(Preservice and In-Service) Gallery Workshop

This session will focus on establishing a professional development partnership that helps teachers integrate effective research strategies on mathematics teaching. Examples will encourage participants to concentrate on pedagogical strategies that require students to manipulate materials and ideas in order to explore concepts and make connections.

**Krista Althaus**

Eastern Kentucky University, Richmond, Kentucky

Room 418

125

### New and Preservice Teachers' Workshop

(Preservice and In-Service) Gallery Workshop

Find answers to your questions on topics such as classroom management, parents, motivation, and keeping your sanity. Connect with other new teachers, learn from experienced professionals, and find resources to engage you and your students. You might even win a prize!

**G. Patrick Vennebush**

National Council of Teachers of Mathematics, Reston, Virginia

Room 411

3:30 P.M.–4:30 P.M.

 126

### Enhancing the Math Inclusion Coteaching Experience Using Interactive Whiteboards

(General Interest) Session

Wondering how to improve your math inclusion coteaching experience? Come see how daily integrating your interactive whiteboard will help reach not only your special-education students, but *all* your learners. Classroom-ready strategies, tips, and tricks for dynamic lesson planning highlight the session. Make your class work for everyone involved.

**Martin Ford**

Pennsauken High School; Education First PD Solutions, LLC, Pennsauken, New Jersey

**Rose Birkhead**

Pennsauken High School; Education First PD Solutions, LLC, Pennsauken, New Jersey

**Eileen Egan**

Pennsauken High School, Pennsauken, New Jersey

Room 408/409

 127

### Learn↔Reflect Reflection Session

(General Interest) Session

This culmination session of the Learn↔Reflect strand will facilitate a discussion of four reflection questions. Those who attend the Kickoff, at least one Learn↔Reflect session, and the Reflection session will earn a personalized certificate.

**Norma Boakes**

Richard Stockton College of New Jersey, Pomona, New Jersey

**Cheryl Giordano**

Morris Hills Regional District, Rockaway, New Jersey

**Brian Rawlins**

Scotch Plains-Farwood School District, Scotch Plains, New Jersey

**Christina Tondevold**

Mathematically Minded, LLC, Orofino, Idaho

Room 405/406

 128

### Sociocultural Dynamics of Indian Mathematics Education: What Can We Learn?

(General Interest, Research) Session

In India, sociocultural dynamics play important role in mathematics teaching and learning practices. U.S. schools often lack an intentional effort to help culturally and linguistically different (CLD) students. Lessons learned from Indian mathematics education would enrich mathematics teaching strategies for CLD students.

**Rupam Saran**

City University of New York, New York, New York

Room 402

129

### Teaching Math Online: Using the Research

(General Interest) Session

This presentation will show how existing research should, but too often doesn't, guide online math instruction. It will examine how many online math lessons fly in the face of current research, and then demonstrate promising efforts and examples of lessons that more fully incorporate current research findings.

**Harold I. Lawrance**

K12, Herndon, Virginia

Room 314

130

### It's All about Ten!

(Pre-K–2) Session

This session will deal with the importance of elementary students' understanding how 10 composes and decomposes. Participants will engage in activities that promote students' understanding of the number 10, fact families, and the commutative property.

**Mary Buck**

CORE, Berkeley, California

Room 421

THURSDAY

Stay Connected!  
Check us out on  
Twitter and  
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3:30 P.M.–4:30 P.M.

131

### Assessment Data: How Can Teachers Use This in the Classroom?

(Pre-K–5) Session

Assessment data on students inundates many teachers. The challenge we face is how to use the data to help our students make gains. This session will highlight the latest research in assessment of young students on math concepts. Moreover, the participant will learn how to use the data to design activities to improve math performance.

Jeff Ohmer

McGraw-Hill Companies, Saint Johns, Florida

Room 320

132

### Making Math Assessments Meaningful

(Pre-K–5) Session

This session will cover how to make an assessment meaningful to students. It will give specific examples of how to teach your students to become responsible for their own learning. Participants will leave with a variety of different ways to assess their students and the confidence to teach their students to analyze their own mistakes.

Amy Besterman

Avonworth School District, Pittsburgh, Pennsylvania

Room 403

 134

### Data-Driven, Differentiated Instruction Provides Algebra Readiness in Middle School

(6–8) Session

Assessment, activities matched to Common Core State Standards, and research-based strategies prepare the lowest 20 percent of middle school students for success in algebra. Learn about differentiated instruction for Response to Intervention, English language learner, and special education students. Receive handouts.

Caryl K. Pierson

Math Teachers Press, Inc., Minneapolis, Minnesota

Amy Johnson

Math Teachers Press, Inc., Minneapolis, Minnesota

Room 319

135

### Using Mathematics to Increase Civic Participation: The Case of Philadelphia

(6–8) Session

Not all students have the same access to information for participating in institutional processes that will enhance their educational opportunities. This session presents how mathematics lessons can use real data of consequence to urban middle school students, such as data on high school choices, to increase their mathematics and civic engagement.

Vivian Y. Lim

University of Pennsylvania, Philadelphia, Pennsylvania

Janine Remillard

University of Pennsylvania, Philadelphia, Pennsylvania

Room 414



Photos Courtesy of the Atlantic Convention & Visitors Bureau

3:30 P.M.–4:30 P.M.

136

### Using Online Simulations to Improve Conceptual Understanding in Mathematics

(6–8) Session

Learn how Gizmos online simulations help teachers take advantage of research-proven instructional strategies and help students of all ability levels develop conceptual understanding in mathematics. Teachers enhance instruction with powerful interactive visualizations of concepts, while students engage in extensive “what-if” experimentation.

**Teresa M. Moon**  
Crestwood High School, Mantua, Ohio

Room 420

 136.1

### Moving Special Education Students from Procedure to Thinking

(9–12) Session

A way to encourage students to think deeply about word problems is to remove the numbers. Participants will solve and discuss problems without numbers, examine some student and teacher solutions, and explore ways in which they can use such problems to enhance special ed students’ mathematical reasoning.

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

**Richard Askey**  
University of Wisconsin, Madison, Wisconsin

**Marian Palumbo**  
Bernards Township Public Schools, Basking Ridge, New Jersey

Room 415

138

### Who Wants to Be a Millionaire? Mathematics of Retirement Investing

(9–12, Higher Education) Session

This talk will focus on using spreadsheets and the development and analysis of discrete dynamical systems to examine fully the advantages of investing early for retirement. It will also discuss retirement savings issues, such as 401(k), IRA, mutual funds, employer match, diversification, and asset allocation.

**Paul Laumakis**  
Rowan University, Glassboro, New Jersey

**Marlena Herman**  
Rowan University, Glassboro, New Jersey

Room 410

139

### Developing an Online Lesson-Study Community

(Preservice and In-Service) Session

Lesson study can supporting teachers’ development, but is difficult to sustain in schools. The speakers will discuss their efforts to create a virtual lesson-study community, which uses the Internet and other technologies to create an infrastructure that allows teachers from different schools in lesson-study activities conveniently and efficiently.

**Jason Silverman**  
Drexel University, Philadelphia, Pennsylvania

**Hope Yursa**  
Drexel University, Philadelphia, Pennsylvania

Room 305/306

THURSDAY

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