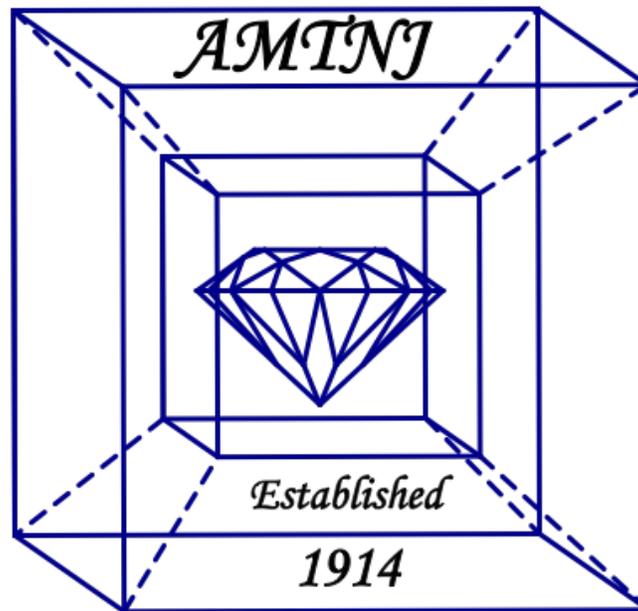


Association of Mathematics Teachers of New Jersey

26th Annual Two-Day Conference

*Creating Exciting, and Motivating
Mathematics Classrooms*



Exciting Classroom Activities to Improve Student Learning

Thursday, December 8, 2016

Engaging Assessments to Inform Instruction

Friday, December 9, 2016

The National Conference Center
399 Monmouth Street, East Windsor, NJ 08520

Thursday, December 8, 2016

7:00 AM - 7:30 AM

1. First Timers' Session

An orientation for the program booklet and the conference.

Kristie Prokop

AMTNJ President

West Morris Mendham High School

Conference Room A

7:00 AM - 8:30 AM

Thursday Breakfast Function

Sponsored by Pearson

Ticket required. Cost of ticket: \$10.

Gallery

2. The High School Math Curriculum: The Status Quo is Unacceptable

General Interest

The Common Core has done little to improve the 9-12 math curriculum which seems mostly unchanged from decades past. This session will discuss realistic steps that the math community must take including creating math pathways for high school students and a focus on modeling tasks.

Eric Milou

Rowan University

Conference Room C/D

8:00 AM - 9:00 AM

3. Technology Bytes to Drive Differentiation

General Interest

Technology can be easily adapted to differentiate instruction for all students in an inclusion classroom. Participants will learn various strategies of how to incorporate technology activities into choice boards.

Julie Norflus-Good

Ramapo College

Auditorium

4. Using Statistics to Understand Investments

General Interest

Even our most accomplished students lack the basic financial skills crucial to success in life, yet they all take math and are all interested in money. I will demonstrate how to tap into that money interest and help students become more mathematically and financially savvy by infusing investment applications with basic concepts in statistics. Some applications covered are: arithmetic versus geometric means, measure of central tendency, namely, standard deviation, weighted average, all applied to stocks and bonds.

Paul Westbrook

Rutgers University

5. Reduce Math Anxiety with Virtual Manipulatives in the Elementary Classroom

PK - 8

This workshop will focus on the mathematical practice of using virtual manipulatives and gamification within your math classroom. Concepts covered will include fractions, graphing, and more! Learn how to keep your students actively engaged by exploring math hands-on without any physical distractors. All aligned to your curriculum!

Lauren McCrone

Matific

Conference Room B

6. Not Your Average Math Centers - Engaging Students Through Small Groups

PK - 5

Explore how to engage and motivate your students through math centers. Learn how to maximize instructional time and meet the individual needs of your students using small groups.

Stephanie Rotondo & Vanessa Proietto

South Orange-Maplewood School District

Conference Room E

7. So, What is a Function? Qualitative Approach to Function Concept

6 - 12, Pre-Service Teachers, Teacher Educators

Come to participate in activities that will help your students to overcome misconceptions they have about functions - no numbers, no graphs, purely conceptual approach that works!

Irina Lyublinskaya

College of Staten Island

Conference Room F

Thursday, December 8, 2016

8:30 AM - 10:00 AM

8. Using Financial Applications to Build Algebra 2 Competence and Confidence

9 - 12

Financial knowledge is an important part of college and career readiness. This session will examine selected Algebra 2 and Precalculus topics that can be used to model financial situations (data analysis, regression, logarithms, functions, systems, piecewise functions, linear programming and more). A handout will be distributed.

Richard Sgroi

Bedford Schools - Retired

Amphitheater

9. Playing with Numbers in the Elementary Grades

3 - 5

Learn how playing with numbers helps develop number sense and fluency with whole-number and fraction computation. Students build understanding as they talk about numbers, use manipulatives and visual representations for numbers, and play games involving numbers and their operations.

Janet Caldwell

Rowan University

Conference Room A

9:30 AM - 10:30 AM

10. Achieving Math Fact Fluency through Digital Game-Based Learning

PK - 8, Teacher Educators, School Administrators
Fact Fluency is essential for math success. Teachers need effective tools to illustrate math rules. The 'Very Important Facts' methodology is a digital tool that systematically focuses attention on fact families, math rules and follows up with game based practice. The session will elaborate on the module and its implementation.

Robert Sun

First in Math

Auditorium

11. Math + Writing = A Formula for Success

PK - 8, Pre-Service Teachers, Teacher Educators, School Administrators

Build mathematical thinking and improve written math responses with practical, use-tomorrow strategies. Learn to design quick math assessments and use focused criteria to set expectations and provide efficient feedback. This interactive session will model engaging research-backed strategies for increasing engagement, deepening conceptual understanding, and enhancing constructed math responses.

Kristine Gibson

Collins Education Associates

Gallery

12. $< = >$ (Less Equals More)

3 - 8, Teacher Educators, School Administrators

Here is a workshop to help teachers implement great lessons and mathematical practices in their classroom through the use of problems that will help drive instruction. Less is More!

Amy Miele-Wilkerson

Sampson G. Smith School

Conference Room B

13. The Addition and Multiplication Principles of Counting

6 - 12, Teacher Educators

How many different license plates are there? How many regions are there in a Venn diagram? How many factors are there of 1000? How many rectangles are there in a 3x3 grid? How many rows are there in a truth table? In how many orders can you deliver 5 students to their homes? How many different three-scoop dishes of ice cream can you make if eight flavors are available? In how many ways can you connect a 3x3 grid of 9 sites into a network? These and many other problems are solved using either the Addition Principle of Counting or the Multiplication Principle of Counting, or a combination of both.

Joseph Rosenstein

Rutgers University

Conference Room E

Thursday, December 8, 2016

9:30 AM - 10:30 AM

14. The Importance of Productive Struggle

3 - 8

Getting students to master math is not always an easy task in any given grade level. For years we have crammed in studying and skill drill for math, taught lessons and had students practice 1 - 30 odds for homework. This session will provide you with ideas for having student led, student driven lessons and activities that are facilitated by the teacher to engage students in productive struggle for learning. This session ties into Mathematical Practice #1, to persevere in solving problems.

Pamela Baykal

Oakland School District

Conference Room F

10:30 AM - 12:00 PM

17. Delivering Standards of Mathematics Visually

6 - 12, Pre-Service Teachers, Teacher Educators, School Administrators

One goal of the standards is a deeper understanding of math. The visual approach delivers concepts in a natural way and helps students stay focused and motivated. The participants will be able to appreciate the power of the Geometer's Sketchpad. The presenter has integrated the technology into mathematics as a visual learning tool to enhance, expand and embrace the existing curriculum. Making the Visual Mathematics more exciting to all learners, the activities for basic Algebra, Algebra 1, Geometry, Algebra 2, Pre-calculus, and Trigonometry ready for the classroom will be presented.

Iftikhar Husain

Newark Public Schools

Amphitheater

9:30 AM - 11:00 AM

15. "Just Let Me Survive Today" - Workshop for Math Class Motivation

3 - 12, Pre-Service Teachers, Teacher Educators, School Administrators

Through a unique combination of games, puzzles, rewards and incentives, lots of humor as well as some traditional techniques, you will learn how to motivate your students so that they will look forward to coming to your class to learn. They will be provided with opportunities for success and the building of confidence in a framework of fun and excitement.

Mark Richman

Columbia High School

Conference Room C

18. Mastering Math Facts and "Perfecting" Place Value: Improving the Teaching of Foundational Skills

1 - 5

In this session we will examine the NJ Student Learning Standards and research regarding these two integral skills. Several assessment strategies will be reviewed to provide you windows into your students' knowledge base. The power of purposeful observation will also be explored as a tool for assessment and grouping purposes. We will try (PLAY!) many games and activities to support whole group and small group lessons. Participants will receive a resource packet and will hopefully leave feeling energized about teaching math!

Laura Giumarra

Wyckoff Public Schools

Conference Room A

16. Come Break it Down with Us!

PK - 8, Teacher Educators

The strategy of breaking down numbers, using a number bond, is vital to all students Grades K through 8. In the beginning we start with whole numbers and work our way through fractions and decimals to negative numbers.

Michelle Pollack & John Tobin

Pine Bush Central School District

Conference Room D

Thursday, December 8, 2016

11:00 AM - 12:00 PM

19. Challenges in Mathematics Education: A Call to Action

General Interest

In recent years, politicians, the business community, and the Council of Chief State School Officers, amongst others have impacted the mathematics education conversation. This session will look at the challenges we face in mathematics education from the CCSSM, to teacher evaluation, to testing and provide talking points and research to take back the conversation.

Eric Milou

Rowan University

Auditorium

20. Using Desmos to Teach Approximation in AP Calculus

9 - 12

Students need to use approximations multiple times in AP Calculus. This session will focus on how to use the Desmos online software to make approximations come alive to students. A special focus will be placed on building content knowledge to solve AP problems on approximations.

John Kerrigan

Middletown Township Public Schools

Conference Room B

21. Collaboration & Motivation Strategies for Critical Thinking in the Math Classroom

PK - 8, Pre-Service Teachers, Teacher Educators, School Administrators

Now more than ever, we need students who can think critically in the math classroom. Learn about collaboration strategies that will motivate students to discuss, share, and challenge each other to think critically about math. Attendees will participate in modeled activities that they can implement in the classroom immediately.

Rich Czyz

Stafford Township School District

Conference Room E

11:00 AM - 12:30 PM

22. Activities Involving Five Frames, Ten Frames, and Hundred Charts

PK - 2

We will explore games and activities that PreK-2 students will enjoy that involve the use of five frames, ten frames, and hundred charts. We will examine how various formats of these manipulatives (card stock, cubes, on-line applets) can help students learn how to add, subtract, and compare numbers.

Karen Heinz

Rowan University

Gallery

23. Changing the Pathways for Success

6 - 12, School Administrators

Interactive workshop for Math Administrators to focus on pathways and placement process for 6-12 Mathematics.

Jennifer Bloch

Montclair Public Schools

Conference Room F

12:00 PM - 1:30 PM

Thursday Lunch Function

Sponsored by Texas Instruments

Ticket required. Cost of ticket: \$15.

24. Impacting Student Learning through Our Professional Growth

General Interest

As mathematics teachers, we wear many hats as we structure, implement, and lead learning opportunities that engage, motivate, and challenge the students in our schools. How can we continue to advance this critical work? How can we further transform into teacher leaders as we continue to make mathematics more relevant, meaningful, and accessible for more students? What can we do in our own professional growth to impact how students learn and understand mathematics? In this session, we will look at the roles mathematics teachers play in leading the conversation about leveraging technology, resources, and best practices in support of effective learning.

Michelle Rinehart

Texas Instruments

Conference Room C/D

Thursday, December 8, 2016

12:30 PM - 1:30 PM

25. Deep End Math: Accelerating Instruction for High Achieving Elementary Students

PK - 8, Pre-Service Teachers, Teacher Educators, School Administrators, General Interest

What are we doing for kids who DO get it? All students have the right to continuous growth through and beyond grade level materials. Keep kids engaged and minimize behavior concerns with pedagogically sound strategies for both in-class differentiation and accelerated replacement instruction, drawing on 15 years of successful practice.

Kristin Baker

New Jersey Association for Gifted Children

Conference Room E

12:30 PM - 2:00 PM

26. Take a Walk on the Random Side

6 - 8

100 friends stand shoulder-to-shoulder, and use coin flips to decide whether to step forwards or backwards. What will happen? Join us for a random walk, and for certain, you'll learn about probability, compound events, combinations, and data distributions. Greater sample size = a stunning human display of data!

Ralph Pantozzi & Cheryl Kaplun

Kent Place School

Auditorium

27. Tech-Savvy Classroom with Traditional Desks

9 - 12, Pre-Service Teachers, Teacher Educators, School Administrators

Got students who can't drag themselves out of their devices? This workshop will introduce google classroom, teacher.desmos.com, and flipped lesson strategies as a way of engaging students with traditional math content in easy tech-savvy ways. Activities presented will be Algebra 2 and Precalculus in nature but teachers of other levels will walk out with something to try! Participants are not required but are welcome to bring their own tablets, laptops or smartphones.

Lora Santucci & Bonnie Montgomery

Morris Hills High School

Amphitheater

28. Mathematics Strategies for the Struggling Learner

3 - 8

This session will equip educators with the tools and strategies that they need to include, support and engage all students in the General Education classroom. Participants will get the opportunity to explore games, activities and strategies that reduce barriers to learning and provide access to all students irrespective of ability or disability.

Chinwe Mgbenwelu

New Jersey Department of Education, Office of Special Education Programs

Conference Room A

1:00 PM - 2:00 PM

29. Yes, We Can Engage Elementary Students in Social Justice Issues!

General Interest

In an age of Common Core, SGO's, and Testing, a university professor and his pre-service teachers will share strategies employing social justice concepts such as recycling, poverty, crime, and nutrition to teach math to elementary students. Urban and suburban perspectives will be revealed through video, lesson plans, artifacts, and discussion.

James Clayton

Saint Peter's University

Conference Room F

Thursday, December 8, 2016

2:00 PM - 3:00 PM

30. Spirographs in Motion

9 - 12

The animation property of Geometer's Sketchpad can be used to produce some wonderful designs that resemble the ones from those spirograph kits we used as kids. Come see how this is done using trigonometric functions and their parameters.

Anita Schulloff

Paramus Catholic High School - Retired

Conference Room E

2:30 PM - 4:00 PM

33. Animating Pictures of Students for Real Life Modeling

6 - 12, College Teachers

Many students struggle to see how math is related to the real world. This presentation will show teachers how to crop photos of students, celebrities, and historical figures into still or animated slides. This engaging strategy provides a meaningful learning experience in real-world problem solving and authentic mathematical modeling.

Andrew D'Amato

North Brunswick Township High School

Auditorium

2:00 PM - 3:30 PM

31. Using Children's Books to Address Common Core Math Standards K-3

PK - 5, Pre-Service Teachers, Teacher Educators

Teachers can engage students with math through literature! I will present a variety of books for young children that focus on a Common Core Math Standard! I will also have classroom activities that go along with the books. Motivate students to look forward to your math lesson through literature!

Sarah Renninger

Rowan University

Conference Room B

34. Creating Assessments in Edulastic

6 - 12, College Teachers, Pre-Service Teachers, Teacher Educators, School Administrators

Participants will learn the basics of creating assessments in Edulastic. Topics include: using the rich text editor, inserting a video, image, table or hyperlink into a question. Participants will also learn how to create questions in drag-and-drop, classification, graphing, matching and image labeling formats.

Ana Woolsoncroft

Barnegat High School

Conference Room A

2:30 PM - 3:30 PM

32. Math Rocks!

General Interest

"Math Rocks!" is a unique and engaging way of connecting math and music in a live, multimedia performance. Classic rock songs are paired with original lyrics and PowerPoint slide shows to present and explain concepts ranging from basic counting to algebra.

Anne Bercaw & Gary Hank

Lopatcong School District

Amphitheater

35. Utilizing Puzzles, Mathematical Recreations and Algebra to Foster Student Engagement

6 - 12, College Teachers, Pre-Service Teachers, Teacher Educators

This hands-on workshop will engage participants in meaningful activities to motivate students and improve their mathematical prowess. The activities include recursive sequence number tricks, magic squares and number patterns only requiring a background in basic algebra. Join us to view engaging mathematics that is relevant and palatable for your students.

Jay Schiffman

Rowan University

Conference Room C

Thursday, December 8, 2016

2:30 PM - 4:00 PM

36. Desmos: Much More Than an Online Graphing Calculator

6 - 12, College Teachers

Struggling to incorporate self-discovery, mathematical discourse and technology in one lesson? Desmos is more than just an online graphing calculator. In this session, learn how to implement lessons, games and activities that deepen students' understanding and love for mathematics while encouraging use of mathematically rich vocabulary and critical thinking skills.

Amanda Schweighardt

Long Valley Middle School

Daenine Foti

Wayne Valley High School

Conference Room D

37. How Many Mice Fit in an Elephant?

3 - 12

Fermi questions can be used to build skills of estimation, dimensional analysis, problem solving, and modeling. Approximating solutions to Fermi problems encourages teamwork and provokes opportunities for students to critique each others' work. Besides working on the title problem, participants in this workshop will also develop Fermi questions they can use in their classrooms. Come enjoy the fun - prizes will be awarded!

David Hoffman

Kushner Academy

Conference Room F

3:00 PM - 4:00 PM

38. Math Centers to the Rescue: Counting and Place Value

PK - 2, Pre-Service Teachers

Do your students struggle with counting and place value? Do you want to differentiate your math centers to reach all of your students? Learn ways to support and deepen understanding with easily made math centers. We'll also examine levels of cognitive understanding and ways to effectively differentiate centers.

Denise Rawding

Newark Public Schools

Gallery

3:00 PM - 4:00 PM

39. Past-President's Reception

Sponsored by Suntex

By invitation only

JT's Restaurant & Pub

4:00 PM - 5:00 PM

40. President's Reception

Sponsored by McGraw Hill

Open to all

Lobby

5:00 PM - 6:00 PM

41. Annual Business Meeting

Open to all

Conference Room A

6:30 PM - 8:30 PM

42. Annual Banquet

Ticket required. Cost of ticket: \$25.

Conference Room C/D

Friday, December 9, 2016

7:00 AM - 7:30 AM

43. First Timers' Session

An orientation for the program booklet and the conference.

Kristie Prokop

AMTNJ President

West Morris Mendham High School

Conference Room A

8:00 AM - 9:00 AM

44. Manipulatives + Picture Books = Success with Number Operations

PK - 5

Discover how picture books and manipulatives can be integrated to lead to success with the number operations. See ways to make the concepts clearer for your students.

You'll walk away with ideas that can be implemented into your classroom immediately! I'll share a variety of picture books that can be used to launch into manipulative-based math lessons to help students understand the concepts.

Kevin Dykema

Mattawan Consolidated Schools

Auditorium

45. Calculator Policy: PARCC, SAT, AP, ACT; Misconceptions and Facts

9 - 12, Pre-Service Teachers, Teacher Educators, School Administrators

Participants will receive and review the latest PARCC, SAT, AP and ACT Calculator Policies. Common misconceptions will be addressed. FREE Resources from TI for Test preparation will be presented. Each participant will receive a TI branded gift and a valuable door prize will be awarded.

Jim Donatelli

Texas Instrument

Gallery

46. Suggestions for Teaching AP Statistics

9 - 12, Pre-Service Teachers, Teacher Educators

Having graded AP Statistics Exams the speaker will provide valuable insight on how to prepare students for the free response questions. Selected examples will be discussed and topics range from boxplots to two-sample tests to linear regression in one variable.

Cathleen Zucco-Teveloff & Jeff Teveloff

Rider University

Conference Room B

47. Developing Conceptual Understanding in Mathematics Using Multiple Representations and Modeling

6 - 8

Twenty-first century learning requires students to make meaningful connections in mathematics. Using real world examples, let's explore ways to develop conceptual understanding using multiple representations and models. Take back to your classroom ready-to-use activities to empower your students.

Tom Beatini

Union City Public Schools

Conference Room C

48. Making Sense of Length Times Width through Dynamic Task Design

3 - 5

We introduce a dynamic approach to measurement aiming to address students' difficulty of moving from counting square units to the multiplicative reasoning that underlies the area formula. We present tasks that can be used for developing a conceptual understanding of area and illustrate examples of students' work on these tasks.

Nicole Panorkou, Madhavi Vishnubhotla & Debasmita Basu

Montclair State University

Conference Room D

49. Surface Area Birthday Present Challenge!

6 - 8

Participants will be actively involved with a wrapping paper challenge to create an accurate net to fit a birthday gift! Ideas about how to differentiate this activity for all math abilities will be included as well as teaching this activity using different formats to fit class size.

Sandra Vorensky

Edgar Middle School

Conference Room E

Friday, December 9, 2016

8:00 AM - 9:30 AM

50. DIY Videos that Teach and Assess; It's a Win Win!!

3 - 12, College Teachers

Participants will learn to create engaging math videos to enhance your flipped classroom! These videos will not only assist in student learning, but will provide you data of student progress via built in teacher created/placed checkpoint questions within the video. Use the data to create your small group instruction.

Michael Linskey & Dawn Boyer

Byram Intermediate School

Conference Room A

51. Using the Concrete-Representational-Abstract Sequence for Brain-Based Learning in Algebra

6 - 12, Pre-Service Teachers, Teacher Educators, School Administrators

The Concrete-Representational-Abstract Sequence provides for research-based, best practice math instruction for all learners, from strugglers to advanced students, ELL and identified students, to maximize the effectiveness of manipulatives. This session will provide an overview as well as hands-on practice and a discussion of how use of manipulatives impact classroom management.

Jeannine Lanphear & Megan Stefanidis

North Brunswick Township Public Schools

Conference Room F

8:30 AM - 10:00 AM

52. Calculating Our Future: Math Lessons on the Environment and Society

6 - 8

Show students how to apply math skills to understanding and solving challenges to our natural environment and human well-being. Engage in interdisciplinary hands-on activities that address science and social studies themes – population growth, resource use, health and education – while working on measurement, algebra, and more.

Althea Hylton-Lindsay

William Paterson University

Amphitheater

9:30 AM - 10:30 AM

53. Doing Statistics (AP or Not) for \$6.21

6 - 12, College Teachers, Pre-Service Teachers, Teacher Educators

How can we introduce or reinforce statistical concepts with hands-on materials? Drop by to find out! Be prepared to have some fun doing statistics with cards and coins!

Douglas Smith

AMTNJ Past President

Auditorium

54. PMI® - Using Technology for Embedded Formative Assessment

PK - 12

Discover how to use embedded formative assessment questions to improve teacher understanding of student learning using the free resources of the Progressive Mathematics Initiative® (PMI®). Learn strategies for adjusting instruction as the lesson is delivered.

Melissa Axelsson

NJ Center for Teaching and Learning

Gallery

55. Seeing and Doing Geometry: Gain a Deeper Understanding with Manipulatives

6 - 8, Teacher Educators

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 Boyer & Michael Linskey

Byram Intermediate School

Conference Room B

56. Absolute Essentials when Solving Absolute Value Inequalities

6 - 12, Pre-Service Teachers

Knowing what to expect for your answer BEFORE solving a 1-variable absolute value inequality is absolutely essential. Participants will examine several absolute value inequalities and learn to predict how results will look when graphed on a number line. Having no expectation about the final result often leads to incorrect answers.

Thomas Bierman

New Road School of Somerset

Conference Room C

Friday, December 9, 2016

57. Games for Problem Solving and Number Sense

3 - 12

Participants will learn games that provide opportunities to make sense of numbers and operations, engage a wide range of students, and support problem solving, perseverance and mathematical communication. We will also learn how to make adjustments to games to provide opportunities for collaboration, and encourage reasoning, generalization and inquiry.

Rob Wieman & Jill Perry

Rowan University

Conference Room E

10:30 AM - 11:30 AM

60. Making Numbers Make Sense in the Early Years

PK - 2, Teacher Educators

The speaker will offer strategies, including the use of manipulatives, to help students build number sense, including: addition/subtraction skills, patterning, and the comparison of values (1-20) in the early years. Attendees will be actively engaged by making hands-on activities to utilize in their own class. Handouts will be provided.

Ellen Lauterbach

Marshall Cavendish Education

Amphitheater

9:30 AM - 11:00 AM

58. It's All Fun & Games Until Someone Uses Assessments

3 - 5, Pre-Service Teachers

Come join in the fun as we explore games, problems, and activities that can be used as formative assessments. Easy charts, checklists, and rubrics will make the fun in your classroom inform your instruction as you examine your students' mathematical thinking.

Marna Lampe & Patricia Cox

Ewing Public Schools

Conference Room D

61. Connecting Ideas Drives Student Confidence and Performance

9 - 12, Pre-Service Teachers, Teacher Educators

Math students learn varied operations, methods, and procedures but often haven't been presented with how they may interact. Understanding connections between math ideas knits knowledge together toward a unified whole. This can lower student apprehension toward math, improve confidence, and start students on a journey to become math thinkers.

Patrick Murray

Newark Public Schools

Conference Room A

10:00 AM - 11:00 AM

59. Fun with Fractions

3 - 5

Engage your students with the "Super Power of Fractions" in the classroom. Hands on activities with fractions for grades 3 - 6th grade.

Liljana Marku & Lisa Payne

Sayreville Public Schools

Conference Room F

11:00 AM - 12:00 PM

62. SMART Board Assessments

6 - 12

SMART Notebook software has several tools for engaging students, measuring their progress and integrating formative assessments into lessons. We will look at algebraic and geometric examples for Senteo, SMART Response and the newest Response Tool in Notebook version 2016.

Linda Treilman

Mercer County Community College

Gallery

Friday, December 9, 2016

11:00 AM - 12:00 PM

63. How is the Redesigned SAT Affecting NJ Students?

9 - 12, College Teachers, Teacher Educators, School Administrators

With the rapid changes in mathematics curriculum in the State of NJ, along with the changes in the redesigned SAT, how will our students manage on this assessment? This presentation will focus on how your mathematics lessons will help students perform better on this crucial test for college admission.

Michael D'Alessio

Watchung Hills Regional High School

Conference Room C

64. Interactive Activities that Engage and Assess Learners

6 - 12, Teacher Educators

With or without technology, we need to constantly assess students for understanding—individually and as a class. This workshop is meant to share some of the methods that we have found successful in the classroom, as well as create a forum to share ideas among our colleagues. Hopefully this will assist us in creating variety and engagement in our assessments.

Kathryn Kemeny & Emily Masur

Collingswood Schools

Conference Room E

11:00 AM - 12:30 PM

65. Passing the Dinner Table Test with Great Problems

6 - 12, Pre-Service Teachers

Do your classes pass the dinner table test? We will share four great problems that will increase the number of times your students can say, "Math was cool today." As a side benefit, the problems will have connections to inequalities, quadratics, higher degree polynomials, and more.

Jim Matthews

Siena College

Auditorium

66. Exploring Trigonometric Functions with Line Segments in the Unit Circle

9 - 12

In this session we will discuss how students can use line segments in the unit circle to construct new understandings about trigonometric functions and make connections among different concepts in trigonometry.

Mark Russo

Pascack Valley Regional High School District

Conference Room B

11:30 AM - 12:30 PM

67. Evaluation of New Formative Assessment Software

3 - 8, Teacher Educators

Several recently-retired teachers are now building the software that they wanted when they were in the classroom. It gives elementary math teachers daily formative assessments; shows each student's CCSS progress; the teacher does no data entry. Participants will use the system, then give suggestions for its further development.

David Robson

Towson High School

Conference Room F

11:30 AM - 1:00 PM

68. Algebra Tiles are NOT Just for Algebra I

6 - 8, Pre-Service Teacher

Algebra tiles can be used as an engaging and effective instructional tool in all middle school classes, including Algebra I. Attend this hands-on workshop to explore the many different ways that these manipulatives can be used in grades 6 - 8 & Algebra I to achieve deeper understanding of the Common Core standards.

Ann Marie VanSickle & Gael Strohmeyer

Valley Middle School

Conference Room D

Friday, December 9, 2016

12:00 PM - 1:00 PM

69. Empowering Your Math Students by Individualizing Your Classroom

6 - 12, College Teachers, Pre-Service Teachers, Teacher Educators, School Administrators

Level the math playing field. Transform lectures into daily discussions in your classroom. Discover how you can individualize math education through a self-paced hybrid classroom where student differences become assets for collaboration. Learn how to use a tablet, podcasting, and a basic webpage to create a mathematical experience!

Adam Staab

Copenhagen Central School District

Amphitheater

12:00 PM - 1:30 PM

70. Instructional Routines that Empower ALL Students as Knowers and Owners of Mathematics

6 - 12, College Teachers, Pre-Service Teachers, Teacher Educators, School Administrators

Meaningful formative assessment occurs when both students and teachers have a clear picture of how to share and interpret the mathematical thinking in the room. We will explore how formative assessment, embedded within instructional routines, supports deep understanding of concepts and positions all students as knowers and owners of mathematics.

Elizabeth Ramirez & Sara Toguchi

New Visions for Public Schools

Conference Room A

12:30 PM - 1:30 PM

71. Google Apps for Education in the Math Classroom

6 - 12

Google Apps for Education (GAFE) in the math classroom: Some schools have gone Google Classroom, some use chromebooks, and others are just starting to think about their tech future. No matter where you are in the process, you can access GAFE and begin to move math class to a mix of traditional and digital environments for students. We'll talk about helpful Google Apps for math that you can begin applying ASAP.

Denis Sheeran

School District of the Chathams

Gallery

72. Teaching Math "Discretely" for Middle and High School Students

6 - 12

Unmotivated learners? Convince your students to love math with thought-provoking activities that utilize combinatorics, game theory, and fractal geometry to explore students' interests while addressing Common Core State Standards. Participants will leave this session with unique, ready to implement materials that are sure to challenge yet captivate learners of many ages.

Daenine Foti & Amanda Schweighardt

Wayne Valley High School

Conference Room C

73. Folding Paper Motivates Mathematical Learning and Understanding

3 - 8, Pre-Service Teachers, Teacher Educators, School Administrators

Do your students struggle with learning fractions and geometry? Can paper folding help students gain greater access to mathematical understanding and enjoyment? Participants will explore how paper folding can offer students physical approaches to learning mathematical concepts.

Patsy Wang-Iverson

Gabriella & Paul Rosenbaum Foundation

Conference Room E

Friday, December 9, 2016

1:00 PM - 2:00 PM

74. Are Your Students Ready for Calculus? Precalculus Review, AP Style

9 - 12

Participants will use the power of representation, visualization and equivalent form as underlying themes to help students see the familiar through a new lens.

Arpi Lajinian

NJ Standards Advocate Math Lead

Northern Valley Regional High School District

Conference Room B

75. Making an LMS Work For You!

6 - 12

You will learn ways of setting up a Learning Management System (Google Classroom, Canvas, Edmodo) to help your students utilize resources in the best possible way.

Scott Sirota

Eric S. Smith Middle School

Conference Room F

1:00 PM - 2:30 PM

76. Effective Assessment and Feedback in the Math Classroom

9 - 12

Formative assessment and feedback are necessary components of all good instruction, especially in a math classroom. Based on the work done by Achievement Coaches across the state, this workshop will provide teachers with ideas on how to use purposeful formative assessments and feedback in order to improve student achievement.

Debra Gulick

East Brunswick Public Schools

Auditorium

1:30 PM - 2:30 PM

77. Assess Your Tests and Assignments with the Assessment Inventory

6 - 12, College Teachers, Pre-Service Teachers, Teacher Educators, School Administrators

Analyze your tests and assignments to determine your present status and the directions to take to improve assessment and instruction. Use the Assessment Inventory to continue that growth through continued assessment. Complete the inventory and consider higher order thinking skills assignments.

Agnes Azzolino

mathnstuff.com

Amphitheater

1:30 PM - 3:00 PM

78. The Power of Rehearsal: Practice Making Decisions That Empower ALL Students

6 - 12

Experience and participate in a coached rehearsal of an algebraic instructional routine designed to engage students in rich discussions about mathematics. See how formative assessment practices embedded within the routine help classrooms come alive by positioning ALL students as capable of doing mathematics.

Sara Toguchi & Elizabeth Ramirez

New Visions for Public Schools

Conference Room D

2:00 PM - 3:00 PM

79. MAFF Time: Math Activities for Fun

3 - 8

Provides engaging, standards aligned activities that make math competitive, personal, creative, artistic, relative... and of course fun! Activities presented will have students rapping about patterns, finding their fractional heritage, competing in the Metric Olympics, walking to the Moon and shouting "IZZA IZNOTTA"

Luann Voza

Lyndhurst Schools

Gallery

Friday, December 9, 2016

2:00 PM - 3:30 PM

80. Creating a Puppy – A Transformational Geometry Activity

6 - 12

Participants will use 'list' and 'stat plot' features on the TI - 84 to graph objects. By experimenting with changes in the x and y values participants will discover and develop rules to create translations, reflections, rotations and dilations.

Fred Decovsky

Teachers Teaching with Technology

Conference Room A

2:30 PM - 3:30 PM

83. PEMDAS: Let's Stop Making Excuses for Aunt Sally

6 - 12

There's a lot more to Order of Operations than just PEMDAS and Aunt Sally. The speaker will discuss various deficiencies and ambiguities with PEMDAS including how various technologies treat them.

Jerry Tuttle

University of Phoenix

Conference Room B

81. Incorporating Desmos in Algebra 2 and Precalculus Courses

6 - 12, Pre-Service Teachers, Teacher Educators, School Administrators

The use of the online Desmos calculator engages students in activities that incorporate the Common Core Mathematical Practices. The session will share Desmos activities that allow students to model using mathematics, explore transformations, and analyze functions and relations. Activities also allow students to make connections between graph, data table and equation.

Kathleen Carter

North Hunterdon Regional High School

Conference Room C

2:30 PM - 4:00 PM

84. Embedding Formative Assessment Within an Instructional Routine

9 - 12

The thoughtful use of formative assessment has been shown to improve student outcomes but can be challenging to integrate into practice. Come experience an engaging and flexible instructional routine and then unpack the use of formative assessment strategies embedded within the routine.

David Wees

New Visions for Public Schools

Conference Room F

82. Implementing the Standards of Mathematical Practice

3 - 5

The presentation will include effective strategies for implementing the Standards of Mathematical Practice. The demonstration will include differentiated group activities that target upper elementary students. Strategies will encompass research-based methods teachers can use to implement the SMPs into daily instruction. Student and parent supports, as well as rubrics for assessment will be included in the presentation.

Melissa Mohr & Jeanne Stamler

Pvt. Nicholas Minue Elementary School

Conference Room E

Friday, December 9, 2016

3:00 PM - 4:00 PM

85. Integrating Authentic Data Analysis into the Classroom

6 - 12, College Teachers, Teacher Educators, School Administrators

We will first discuss the process of collecting, analyzing, and interpreting authentic student data, in the context of an interdisciplinary setting. A key aspect of the presentation will be to have an open dialogue on how to make data analysis a useful aspect of student learning.

Ryan Postman

Pascack Hills High School

Auditorium

86. Big Dividends: Investing in Growth Mindset in Math

3 - 8

Participants create a cohesive approach to shift the mindset of all stakeholders from a fixed to a growth mindset. Leave with resources to transform the way all stakeholders view Math including detailed plan for professional development of staff, mindset platform for parents and activities to build a growth mindset in students.

Anne Richardson

Randolph Township Schools

Amphitheater