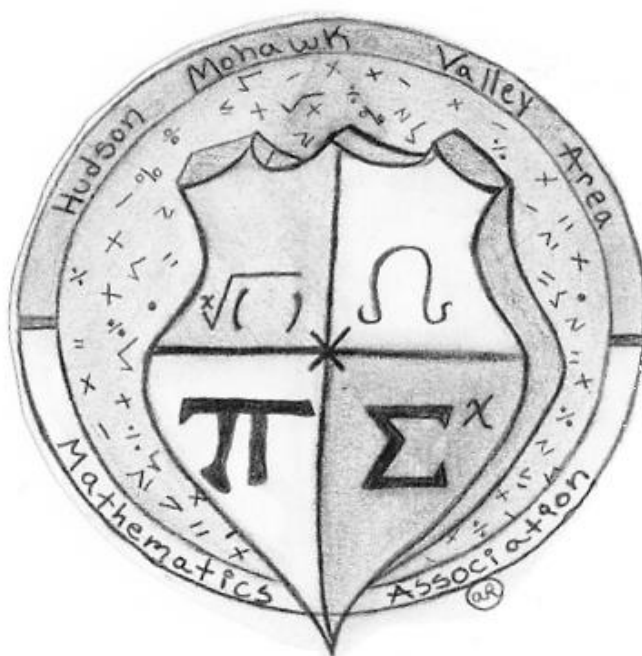


61st Annual
Hudson-Mohawk Valley Area
Mathematics Conference

An AMTNYS Affiliate



Saturday, March 14, 2020

Colonie High School
1 Raider Blvd.
Albany, NY 12205

<https://hmvamc.wixsite.com/hmvamc>

SOUTH COLONIE CENTRAL SCHOOL DISTRICT

102 Loralee Drive
Albany, NY 12205

Jonathan W. Buhner
Superintendent of Schools



Phone: (518) 869-3576
Fax: (518) 869-6517
www.southcolonieschools.org

January 22, 2020

Dear Colleagues,

On behalf of the South Colonie Board of Education, faculty, and staff, I would like to welcome you to the 61st annual Hudson-Mohawk Valley Area Mathematics Conference. We are thrilled to be hosting this year's event and we welcome you to South Colonie!

As we continue to support our students in an ever-changing landscape, it is extremely important that we have the connections and resources to stay up-to-date and relevant with instructional methods. This conference provides a great opportunity to learn techniques from colleagues ensuring that our students leave our classrooms with a strong foundation in mathematics and that we continue to meet the New York State Next Generation Mathematics Learning Standards. Together, we have the opportunity to learn from each other and guarantee that we are preparing our students for a variety of career paths in today's world.

As the Superintendent of the South Colonie Central School District, I would like to thank our Associate Principal Lindsay Tresansky, the math department team, and the members of the Hudson-Mohawk Valley Area Mathematics conference committee for their leadership and organization in the planning of this year's conference. Again, we are honored to be the host, and we hope that it is a great experience for all.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jonathan Buhner", is written over a large, stylized, light blue circular mark that resembles a large "J" or a stylized "B".

Jonathan Buhner, Superintendent

To my Mathematically Inclined Colleagues,

It is with great pleasure and excitement that I welcome you to Colonie Central High School and the 61st Annual Hudson-Mohawk Valley Area Mathematics Conference. The longevity of this event speaks to the quality and character of people who are willing to put in the time to make this event an annual success. I was fortunate this year to see the planning that is required and it is nothing short of impressive. Therefore, I hope you find our school to be an inviting and comfortable space and complimentary to the presentations that you will be attending. I am certain that you will leave here with knowledge and pedagogical skills to enhance the learning experiences for the students in your classroom. Professional development opportunities of this scale provide its participants the chance to take their current practices from best to next. Forward thinking and engagement is what our classrooms require and students deserve.

Once again, welcome and thank you for joining us today! Enjoy.

Sincerely,

Christopher Robilotti

Christopher Robilotti
Executive Principal
Colonie Central High School

61st Hudson-Mohawk Valley Area
Mathematics Conference
Saturday, March 14, 2020

7:45 – 8:45	Registration, Coffee
8:50 – 9:50	Session 1 (& Welcome) • Pages 4~11
10:00 – 10:50	Session 2 • Pages 12~20
11:10 – 12:00	Session 3 • Pages 20~28

~Lunch Break~

12:10 – 12:40	<i>Group A – Eat Lunch</i> <i>Group B – Visit Exhibits</i>
12:50 – 1:20	<i>Group B – Eat Lunch</i> <i>Group A – Visit Exhibits</i>
1:30 - 2:20	Session 4 • Pages 28~33

Book exhibits and vendors will be available between the hours of 7:45 am and 1:30 pm. Visit the exhibits to view the latest in textbooks, manipulatives, technology, and more!

K-2 Number Talks

Room: 156
Session: I

Level: K-2

Number Talks improve your students' number sense and fact fluency simultaneously! They are very easy to implement and only take a few minutes. Come learn about this rich and engaging method that will strengthen your students' accuracy, efficiency and flexibility with mental math strategies.

Melissa Goard
K-2 Math Specialist and Coach
Mohonasen CSD

Promoting Argumentation in Math. It's not what you think!

Room: 264
Session: I

Level: K-5

Discuss why we need our students comfortable explaining their thinking verbally and in writing. In what ways are we building that strength in our work with students? Spend some time with Michelle and Julie exploring the role discourse and writing plays in math.

Michelle Gabree-Huba
Academic Administrator Math & Science K-5
Shenendehowa Central School District

Julie Burnetter
Instructional Coach
Shenendehowa CSD

Math Games: Soooo Much More than Fun!

Room: 157
Session: I

Level: K-5

Is there a better way to motivate students to gladly participate in learning mathematics than by playing a game? We think maybe not! The trick is finding where they "fit" into your curriculum and instruction. There'll be some research and justification for taking time out of a busy day to play, which is EXACTLY what we'll be doing. Come join us!

Kim Loucks
Retired Authors & Consultants
Teaching and Learning Connected

Carolyn Hirst-Loucks
Retired Authors & Consultants
Teaching and Learning Connected

The Silent Symptoms Of Math Anxiety and How To Address Them

Room: 164
Session: I

Level: K-5

Math anxiety is incredibly common and it is not limited to taking timed tests. In this session, we'll take a look at the environmental factors that make up math anxiety, how to look for the silent symptoms and how to address them in your classroom.

Rosalba McFadden
Math Consultant
Zenned Math

Next Generation Standards to TEACH but not TELL the Math

Room: 217
Session: I

Level: K-6

*This session will build understanding in topics within Whole Numbers & Fractions in 4 ways:
Visually online; 3 part lessons online; Manipulatives; Game reinforcement*

We address multidimensional approaches to build conceptual understanding in mathematics.

Rudy Neufeld
Sr. Author / CEO
Understanding Math by Neufeld

Student Driven Math Instruction

Room: 161
Session: I

Level: 5-6

Students need to be seen and heard in every math class not simply responding to a question, but creating questions in order to solve problems. Infusing technology, movement, and a sense of the unknown into the classroom excites and motivates students. I will share ways that have proven successful with my 5th grade math students. (geared toward 4th-5th-6th grades)

Kathleen Palmieri
National Board Certified Teacher · 5th Grade Teacher
Shenendehowa CSD

Retain the Gains! Long-Term Retention for Math Students

Level: K-5, 6-8, 9-12

Room: 215
Session: I

By the end of the school year, many students have already forgotten many of their hard-won math concepts and skills. How can we make it stick? Josh Britton will share his 20-year journey, proven model, and custom-created Get More Math system for driving long-term math retention in the classroom.

Josh Britton
Founder and Chief Product Officer
Get More Math

SET - Using a (Simple) Game to Explore Mathematics

Level: K-5, 6-8, 9-12

Room: 150
Session: I

From elementary to high school all students can explore and learn about Math concepts using the game of SET. SET is a multi-player game with a special deck of cards. We will explore some of the mathematics of the game and provide activities for all grade levels.

Karen Wells - Shaker HS
NYS Master Teachers
Shaker High School

Angela Netoskie - Niskayuna HS
Brenda Kelliher - Schodack
Both NYS Master Teachers

Creating Engaging Games and Activities to Use with Your Already Created Material

Level: 6-8

Room: 134
Session: I

Want to make that worksheet or review assignment more engaging? Come and learn a few simple to implement activities to get your students moving and engaging as they work through their assigned task. Many of the activities can be taken back to your classroom and used with your current materials with little prep.

Christina Bisceglia
Math Teacher
Ballston Spa Middle School

Gary Fleury & Matt Germann
Math Teachers
Ballston Spa Middle School

Creating More Class Time with FLIPPED LEARNING

Room: 202
Session: I

Level: 6-8

Time in the classroom is tight. Flipping your lessons allows for more teacher/student interaction during class, thus more opportunities for the teacher to meet individual needs. It also ends the homework struggle and eliminates the time wasted going over homework in class. If you struggle with having enough time in your classroom, consider this session.

Amy Hirschhoff
Sixth Grade Math Teacher
Schodack Central School District

Teen Mental Health Awareness—a Two-Sided View

Room: 206
Session: I

Level: 6-8, 9-12

Perspective of a mom and school employee. I will share insights from my formal training, the trends I am seeing, and my life experience of raising a child who struggles. A healthy conversation and thoughts about what you can do to help today's kids navigate school and life.

Angie Beber
Administrative Assistant
Schodack Central School District

FREE Formative Assessment Tools for the Mathematics & Science Classroom

Room: 204
Session: I

Level: 6-8, 9-12

Leverage your student's touchscreen devices to engage and improve student learning. All recommendations will be NYS Ed Law 2D compliant. You will get a hands on "student" experience and learn how to implement these tools in your classroom. Check out the presentation at: bit.ly/hmvamc2020.

Jason Adams
High School Math Teacher
Scotia Glenville CSD

Division, Fractions, and Rational Numbers

Room: 155 Session: I

Level: 6-8, 9-12

Division can be thought of in several ways: sharing, quotients and remainders, the opposite of multiplication, and more. The approach which starts with multiplication shows that the integers are not closed under division. This approach requires fractions and rational numbers. We will explore interesting properties and subsets of rational numbers.

James Carpenter
Professor of Mathematics
Iona College

Factoring For All

Room: 165 Session: I

Level: 6-8, 9-12

After years of teaching different approaches to factoring, finally a method that works successfully for all types of factoring & ALL levels of students - even my 2 year Algebra & special education students. The X method works for $a=1$, $a>1$, DOPS, and Completing the Square. This method is consistent for all learners across grade levels. Come learn factoring success for your students!

Michelle Connolly
High School Mathematics Teacher
North Colonie Central School District

Integrating Computer Science in Math Lessons

Room: 132 Session: I

Level: 6-8, 9-12

Learn how to easily insert simple programming and cyber security topics into algebra, geometry, and statistics math lessons at the middle and high school levels.

Carole Geruso
Math/Computer Science Department Chair
Glens Falls High School

Leveraging Mistakes to Teach, Differentiate, and Remediate

Level: 6-8, 9-12

Room: 262
Session: I

Intrigued or perplexed at the mistakes students always make? Mistakes provide a window to student prior knowledge & misconceptions, and a mirror to examine our own instruction. We will explore fun and engaging way utilize student mistakes to increase understanding, clarify misunderstandings, and challenge students to analyze and communicate!

Caitlyn Girona
Mathematics Teacher
Saratoga Springs High School

Let's Talk Best Practices

Level: 6-8, 9-12

Room: 214
Session: I

Let's have an open discussion of everyday things in our "math tool box of fun" to create math magic in our classrooms! Bring some ideas to share about best practices and be ready to take some ideas back to your school!

Erica Holland
Mathematics Teacher
Guilderland Central Schools

Exploring and Creating with Desmos Geometry

Level: 6-8, 9-12

Room: 261
Session: I

Desmos Geometry is a FREE and powerful tool that can be used by you and your students to play with geometry. Participants will explore and create geometric constructions, dynamic/unbreakable quadrilaterals, tessellations, mathematical art, and more. (BYOD - Laptop/Tablet)

Mark Kaercher
Mathematics Teacher
Shaker High School

**Engaging, Encouraging, and Getting Your Students
Excited by Using Hints Cards when Solving Problems**
Level: 6-8, 9-12

Room: 216
Session: I

In this session we will share a great method to improve your students' abilities to preserve when working on challenging problems and to improve their success at solving problems. The method involves the construction and implementation of hint cards. Hint cards are an important component in Japanese mathematics lessons. We will use several great problems to demonstrate this teaching method.

Jim Matthews
Professor
Siena College

Baby You Can Drive My Car: A STEM Project

Room: 152
Session: I

Level: 6-8, 9-12

We will be taking the new TI-Innovator Rover for a test drive. Learn to code on your calculator to make STEM a reality for your classroom.

Dana Morse
Educational Technology Consultant
Texas Instruments

Differentiating in the Mathematics Classroom

Room: 213
Session: I

Level: 6-8, 9-12

What we're doing to differentiate in our Mathematics classes, lesson samples, resources, and templates to utilize to meet the varying needs of our learners. Includes; Choice boards, scaled assignments, HyperDocs, flipped classrooms, etc.

Rachel Peschieri
Mathematics Teachers
Guilderland High School

Nicole Kaya
Mathematics Teachers
Guilderland High School

Introducing Logarithms to your Students

Room: 263 Session: I

Level: 9-12

Increase your students' conceptual understanding while decreasing their stress! Resources will be shared at the Algebra 2 level and the Pre-Calculus Level. Please bring a laptop/tablet/smart phone to the session.

Jim Colton
Teacher
Shaker High School

Interactive Notebooks in the Secondary Math Class

Room: 162 Session: I

Level: 9-12

Are your students bored with the same old notes? Are you? Interactive Notebooks have changed the way my students take notes and they love them! I have been using INBs in my Algebra 2 classes for years and have found that my students are not only more engaged in their note-taking, but they are also able to review for any assessment in a more efficient way. Come and get some ideas for using interactive notebooks in your classroom. No technology required!

Karen Swift
Mathematics Teacher
Saratoga Springs High School

Experience MyOpenMath.com

Room: 205 Session: I

Level: 9-12, College

MyOpenMath.com combines math texts, videos and algorithmically generated questions with numerical, graphical and algebraic expression answers. Customize your course and add your own notes and worksheets.

Vivian Donnelly
Math Teacher
Guilderland High School

K-2 Number Talks

Room: 156
Session: II

Level: K-2

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Melissa Goard
K-2 Math Specialist and Coach
Mohonasen CSD

Division

Room: 203
Session: II

Level: K-5

Children perform division before they are taught division in school. We ignore this fact to their and our detriment. We will explore the division our students performed before their formal education began in order to maximize our teaching and their learning

Steven Bluestone
(Retired) Elementary Grades Math Specialist
Rye City School District (Retired)

Math Games: Soooo Much More than Fun!

Room: 157
Session: II

Level: K-5

Is there a better way to motivate students to gladly participate in learning mathematics than by playing a game? We think maybe not! The trick is finding where they "fit" into your curriculum and instruction. There'll be some research and justification for taking time out of a busy day to play, which is EXACTLY what we'll be doing. Come join us!

Kim Loucks
Retired Authors & Consultants
Teaching and Learning Connected

Carolyn Hirst-Loucks
Retired Authors & Consultants
Teaching and Learning Connected

Entering Word Problems: The Three Read Strategy

Room: 155
Session: II

Level: K-5

Join me to learn how to engage all students in the mathematical practices using the Three Read Strategy. Together we will engage in the protocol to combine conceptualizing and visualizing in math, higher order thinking, student engagement and mathematical reasoning guaranteed!

Megan Riggins
Instructional Math Coach
Albany City School District

Introduction to Coding: An Opportunity for Mathematics Innovation

Room: 217
Session: II

Level: K-5, 6-8

We introduce intuitive coding, ideal for young learners. Attendees receive access to this code as well as to a related robot on the computer screen. They will receive sets of lessons developed by the presenter which provide innovative, exciting but simple tools for teaching concepts in K to 6 mathematics.

Rudy Neufeld
Sr Author / CEO
Understanding Math by Neufeld

Dr. Jorge Moore
Principal in NYC

Retain the Gains! Long-Term Retention for Math Students

Room: 215
Session: II

Level: K-5, 6-8, 9-12

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Josh Britton
Founder and Chief Product Officer
Get More Math

Station Success in the Middle School Classroom

Room: 201 Session: II

Level: 6-8

The need for differentiation is increasing in middle school math classrooms. M.A.T.H. stations provide students with a community in which they are comfortable to take risks, and teachers the opportunity to meet the needs of each student. Participants will explore various station ideas and realistic implementation.

Elizabeth Foley
Special Education Teacher
Scotia Glenville Middle School

Middle School Algebra - Understanding Before Formalism

Room: 204 Session: II

Level: 6-8

The session will focus on modeling of algebraic structures (equations, variables) that leads to students understanding the mathematics that occurs as opposed to just manipulating the symbolism of algebra. Topics will develop on a continuum of the numerical and geometric ideas leading to algebraic structures.

Frank Gardella
Associate Professor
Hunter College

Creating More Class Time with FLIPPED LEARNING

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Level: 6-8

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Amy Hirschhoff
Sixth Grade Math Teacher
Schodack Central School District

Always Play with Your Math: Developing Thinking and Reasoning Skills Through Play

Level: 6-8

Room: 265 Session: II

While students may be able to solve problems with a memorized procedure, they may not have developed the necessary skills towards building a deep knowledge, understanding and appreciation of key math concepts; they might just be good at steps or procedures.

Jordan Rappaport
Homeroom Teacher/Math Coach
Brownridge Public School - York Region District School Board

Let's put some "FUN" in FUNCTIONS (and other topics)!

Level: 6-8

Room: 264 Session: II

Looking for some ideas and activities to have fun in math class while learning about functions and other topics? Then join us and leave with ways to engage your students even as they walk into your classroom.

Susan Summerfield
Math Teacher
Fort Plain Central School

Using Chromebooks in YOUR Math Class

Level: 6-8

Room: 210 Session: II

Do your students have 1-1 devices or access to chromebooks in your school? If you answered yes, this is the session for you. You will learn about FREE programs that are available for your immediate use and how you can use them to differentiate within your classroom. Don't miss out!

Jennifer Toohey
Middle School Math Teachers
Niskayuna Central School District

Jacqueline Giaccone

Leveraging Mistakes to Teach, Differentiate, and Remediate

Level: 6-8, 9-12

Room: 262
Session: II

Intrigued or perplexed at the mistakes students always make? Mistakes provide a window to student prior knowledge & misconceptions, and a mirror to examine our own instruction. We will explore fun and engaging way utilize student mistakes to increase understanding, clarify misunderstandings, and challenge students to analyze and communicate!

Caitlyn Girona
Mathematics Teacher
Saratoga Springs High School

Let's Talk Best Practices

Level: 6-8, 9-12

Room: 214
Session: II

Let's have an open discussion of everyday things in our "math tool box of fun" to create math magic in our classrooms! Bring some ideas to share about best practices and be ready to take some ideas back to your school!

Erica Holland
Mathematics Teacher
Guilderland Central Schools

Why You and Your Students Need Math Puzzles!

Level: 6-8, 9-12

Room: 261
Session: II

Do you play with math? How about your students? Have you heard of "Four Fours"? Or "Yohaku"? In this session, participants will learn about a variety of math puzzles and how they can be used to increase student engagement in students of all ages and abilities.

Mark Kaercher
Math Teacher
Shaker High School

Stephanie Cambrea
Siena College Teacher Intern
Shaker High School

Hacks & Strategies for the Algebra I Classroom

Room: 132
Session: II

Level: 6-8, 9-12

Are you looking for strategies, learning activities and ideas to renovate your classroom procedures and enhance student performance? This session guarantees tangible takeaways that you can immediately integrate in to your classroom. Whether it's mathematical mindset cultivation, strategies used to meet the needs of under performing students or best practices in teaching the Algebra I course - we'll have you covered!

Christine Kawczak
Math Teacher
Columbia High School

Claire Chouinard
SPED Teacher
Columbia High School

Desmos Activity Builder

Room: 162
Session: II

Level: 6-8, 9-12

Help your students become more independent. Participants will have the opportunity to explore Desmos activity builder and edit or create their own lessons.

Alexander Lepes
Department Chair
Port Chester High School

The Music Man: Creating Music Through Code

Room: 152
Session: II

Level: 6-8, 9-12

*Your graphing calculator can do so much more than just +, -, *, and /. We will learn how to code frequencies to create notes and song with the graphing calculator. A great STEM activity.*

Dana Morse
Educational Technology Consultant
Texas Instruments

Differentiating in the Mathematics Classroom

Room: 213
Session: II

Level: 6-8, 9-12

What we're doing to differentiate in our Mathematics classes, lesson samples, resources, and templates to utilize to meet the varying needs of our learners. Includes; Choice boards, scaled assignments, HyperDocs, flipped classrooms, etc.

Rachel Peschieri
Mathematics Teachers
Guilderland High School

Nicole Kaya
Mathematics Teachers
Guilderland High School

Collect Data, Create a Model

Room: 150
Session: II

Level: 6-8, 9-12

Different scenarios will be presented. Participants will collect data, and then, create a mathematical model for the situation. Some scenarios (hs level) require a calculator. Middle school can stay with linear models.

Ray Siegrist
Associate Professor of Math Ed
SUNY Oneonta

Mindfulness and Reflective Meditations in the Mathematics Classroom

Room: 263
Session: II

Level: 6-8, 9-12, College

In response to the ever-changing dynamics of the teenage mind, I have developed mindfulness exercises and innovative reflective meditations over the last 7 years. These can be easily incorporated into any classroom. I will present these exercises in an experiential workshop, where participants engage in exercises and have the opportunity to take back tools to use right away in their schools. The exercises I present help train students to sit with emotions while problem solving and enhance their understanding of mathematics as a process rather than a result-oriented pursuit.

Payal Patel
Founder
Learning In Stillness

Improving Algebraic Sense Making, Reasoning and Justification

Level: 9-12

Room: 216
Session: II

Participants will work on examples based on standard algebra topics that lead to sense making, reasoning, and justification. We will model the type of verbal discourse that can take place in math classes that are based on reasoning and justification. We will model methods of giving hints to students.

Jim Matthews
Professor
Siena College

Activities for a Third Year Alternative to Algebra 2

Level: 9-12

Room: 164
Session: II

Do you have students who are not prepared to take Algebra 2? Instead of offering a 'non-Regents' version of the course, we developed an alternative course that allows us the time and flexibility to explore different topics and do some neat activities with the students. All activities will be explained and shared--if you like them, you are more than welcome to use them in your classes!

Michael Siuta
Mathematics Teacher
North Rockland HS

Block Programming and a Cultural Computing Curriculum

Level: 9-12

Room: 161
Session: II

Teachers will participate in a coding activity using CSnap, a blocks-based programming environment developed at RPI. CSnap along with a Cultural Computing Curriculum is used by high school students to create culturally significant designs in quilting, cornrow hair styles, and tooled leather. Chromebooks will be available. Website: csdt.org

Dr. Shawn Haarer
Mathematics & Computer Science Teacher
Troy High School

Dr. William Babbitt
Research Associate
RPI

Putting the CLASS in AP Classroom

Room: 165
Session: II

Level: 9-12, College

Do you teach AP Calculus AB or BC or AP Statistics? Let's explore the new AP Classroom together. We will share how we are using the new CR resources to enhance instruction and learning. Bring your ideas or questions and laptops!

Michelle Connolly
Mathematics Teacher
Shaker High School

James Colton
Teacher
Shaker High School

Experience MyOpenMath.com

Room: 205
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Level: 9-12, College

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Division

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Level: K-5

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Join me to learn how to engage all students in the mathematical practices using the Three Read Strategy. Together we will engage in the protocol to combine conceptualizing and visualizing in math, higher order thinking, student engagement and mathematical reasoning guaranteed!

Megan Riggins
Instructional Math Coach
Albany City School District

Breakout! Escape Room in a Box

Room: 161
Session: III

Level: K-5, 6-8

A breakout box is like an escape room....there are challenges to solve to figure out combinations and locations for locked boxes, leading to new boxes, and new challenges! Breakout boxes require students or participants to work cooperatively and think creatively. You can explore any topic in a Breakout session; I've done boxes that review math concepts, historical topics, literary themes, science research, and more. They can be catered to any topic, a learning experience that will inspire your students to apply their learning in a novel setting, share ideas, and persevere. In this session we will break in to groups by grade level, so that you can experience a breakout challenge appropriate for the grades you teach.

Kate Elder
Math and Math Intervention
Cobleskill-Richmondville CSD

Tammy Fisher - Elementary Math Intervention
Berne-Knox Westerlo CSD
Sara Evers - 6th Grade Math Teacher

NYSED Update

Room: 264
Session: III

Level: K-5, 6-8, 9-12

Moving from Building Capacity to Full Implementation of the Next Generation Mathematics Learning Standards

Andrea Faoro
Assistant in Instructional Services, Mathematics
NYS Education Department, Office of Curriculum & Instruction (OCI)

Sue Brockley
Office of Curriculum and Instruction
Mathematics Associate in Instructional Services

The Giant Inch: Fractions and Measurement, Oh my!

Room: 157 Session: III

Level: K-5, 6-8, 9-12

Learning about Measurement in Vocational Education often means (re)learning about fractions. This Math-in-CTE lesson, The Giant Inch, offers a hands-on, real-life context for learning about fractions. See how the tape measure and Vernier caliper offer authentic number lines for using with fractions. No safety goggles required!

Melody Kearney
Mathematics Teacher - Academic Integration
Capital Region BOCES

Middle School Algebra - Understanding Before Formalism

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Level: 6-8

The session will focus on modeling of algebraic structures (equations, variables) that leads to students understanding the mathematics that occurs as opposed to just manipulating the symbolism of algebra. Topics will develop on a continuum of the numerical and geometric ideas leading to algebraic structures.

Frank Gardella
Associate Professor
Hunter College

Using Appropriate Tools Strategically: Algebra Tiles are Not Just for Factoring

Room: 202 Session: III

Level: 6-8

Learn how to use algebra tiles to make algebra into a concrete visual experience for your students. Participants will be actively engaged in using algebra tiles to show area and perimeter, combining like terms, evaluating expressions, writing equations, distributive property, and solving equations. While using the tiles, teachers will learn how to help students transition from the concrete (manipulative) to the abstract (paper and pencil).

Mark Jones
Teacher
Mansfield Middle School

Always Play with Your Math: Developing Thinking and Reasoning Skills Through Play

Level: 6-8

Room: 265
Session: III

While students may be able to solve problems with a memorized procedure, they may not have developed the necessary skills towards building a deep knowledge, understanding and appreciation of key math concepts; they might just be good at steps or procedures.

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Homeroom Teacher/Math Coach
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Middle School Math Teachers
Niskayuna Central School District

Jacqueline Giaccone

Teen Mental Health Awareness—a Two-Sided View

Level: 6-8, 9-12

Room: 206
Session: III

Perspective of a mom and school employee. I will share insights from my formal training, the trends I am seeing, and my life experience of raising a child who struggles. A healthy conversation and thoughts about what you can do to help today's kids navigate school and life.

Angie Beber
Administrative Assistant
Schodack Central School District

Engag-ify Your Worksheet- Practice Structures to Engage All Students!

Level: 6-8, 9-12

Room: 262
Session: III

We all want our students to practice & perfect their skills, but doing a worksheet feels like drudgery to them (and us)! In this session, we will play with math and collaborate, all while having fun! Participants will leave with 30+ new ideas for practice structures to adapt to any topic.

Caitlyn Gironda
Mathematics Teacher
Saratoga Springs High School

You KHAN Do It!

Level: 6-8, 9-12

Room: 133
Session: III

Do you struggle to differentiate your Math instruction? Do you feel overwhelmed with data collection and grading? Are your students unmotivated? Come to our session and we will share how the Khan Academy platform has helped us solve some of these challenges.

Cindy Gray
8th Grade Teacher
Koda Middle School

Chloe Frazer
8th Grade Teacher
Koda Middle School

Playing with Origami Bases

Level: 6-8, 9-12

Room: 261
Session: III

The Japanese art of paper folding, known as Origami, is a powerful way to discover & play with geometric relationships. Origami models often begin with a base. In this session, participants will use a variety of base units to create both 2-D and 3-D origami models.

Mark Kaercher
Math Teacher (NYS Master Teacher Emeritus)
Shaker High School

Small Change for a Big Change

Room: 201 Session: III

Level: 6-8, 9-12

Most of my students struggle to relate math to their lives, dislike math or find it very difficult, and have low motivation. Many also find it difficult to fit in socially or see why they are important to me, their families, and their community. In this project, students are each challenged to use ten dollars to create a change for at least one other person. The students may not simply give away the money, but must put careful thought into how to best use the money in a positive way. Many are surprised when they find personal gratification in their projects and are pleased to discover the difference just one person with \$10 can make. After learning about this idea many years ago at an AMTNYS workshop, I've been doing it nearly every year since. Find out how I fund it, what checkpoints exist in the project, and how to use it to teach or reinforce some of your math standards.

Christine Mathers
Math Teacher for Grades 7 & 8
Eugene Brooks Intermediate School

Ditch the Worksheet

Room: 156 Session: III

Level: 6-8, 9-12

Let's face it, it's hard to keep the attention of a preteen/teenager! Come learn about a variety of engaging activities which you can use for math practice. These activities can be created by adapting existing worksheets. Strategies to differentiate activities for learners with diverse needs will also be included.

Katie McNally
Mathematics Teacher
Farnsworth Middle School - Guilderland CSD

TI Tips for Building Math Confidence

Room: 152 Session: III

Level: 6-8, 9-12

Give your students the best tips to build math confidence. We will take a deeper dive into the TI-84 Plus Family and TI-Nspire CX Family. Learn new features of the technology to help teach tough to learn topics.

Dana Morse
Educational Technology Consultant
Texas Instruments

Collect Data, Create a Model

Room: 150
Session: III

Level: 6-8, 9-12

Different scenarios will be presented. Participants will collect data, and then, create a mathematical model for the situation. Some scenarios (hs level) require a calculator. Middle school can stay with linear models.

Ray Siegrist
Associate Professor of Math Ed
SUNY Oneonta

Mindfulness and Reflective Meditations in the Mathematics Classroom

Room: 263
Session: III

Level: 6-8, 9-12, College

In response to the ever-changing dynamics of the teenage mind, I have developed mindfulness exercises and innovative reflective meditations over the last 7 years. These can be easily incorporated into any classroom. I will present these exercises in an experiential workshop, where participants engage in exercises and have the opportunity to take back tools to use right away in their schools. The exercises I present help train students to sit with emotions while problem solving and enhance their understanding of mathematics as a process rather than a result-oriented pursuit.

Payal Patel
Founder
Learning In Stillness

Three Computer Science Courses and a Support Network for your High School Students

Room: 213
Session: III

Level: 9-12

The CS Department at Siena College has a long history of supporting the teaching of computer science at the pre-college level. Currently, we are collaborating with about 20 high schools on the teaching of three different courses. The first course is Discovering Computer Science, a year-long course that students take for high school elective credit or for their third year mathematics requirement. The second is a CS concepts and Python programming class that students can take for both high school and college credit. The third is a course in software development using the Java programming language. In this session you will learn about the details of these courses and the network of educators that can support you teaching these courses at your school.

Maureen Conway - Mohonasen CSD
Robin Flatland - Siena College
Mathematics Teacher

Pauline White - Siena College
Kacie Sandbrook - Schalmont CS
Jim Matthews - Siena College

Modeling the Story of Geometry

Room: 162
Session: III

Level: 9-12

Explore the beautiful aspects of CC Geometry that naturally lead to deeper understandings for yourself and your students. Come away with AHA moments, improved content connections and a better understanding of the nature of CC Geometry as we make our way through curriculum. Software will be discussed as well. Bring your own device, compass, and enthusiasm!

Ellen Falk
President - Elect
AMTNYS

Transform a Worksheet to Build Equity and Engagement in the Classroom with Desmos Activity Builder

Room: 217
Session: III

Level: 9-12

Participants will use Desmos to transform a static worksheet into an interactive activity to promote authentic learning and the integration of the Mathematical Practice Standards. We will explore activities that engage students from Pre-Algebra to Calculus.

Willard Hardin III
High School Math Teacher / NYS Master Teacher
Granville Jr/Sr High School

TI Rover in Algebra I

Room: 165
Session: III

Level: 9-12

Use the TI Rover in your Algebra I classroom. This session is designed to show you how the Rover can be used with the Algebra I curriculum. Add some fun to your classroom by using the Rover to test and demonstrate basic Algebra I concepts.

Jeanne Oliveira
Teacher & TI Regional Instructor
Germantown Jr/Sr High School

Bobbie Bie - Rhinebeck HS, Teacher & TI Regional Instructor
Casey Gannon - Greenville HS, Teacher & TI Regional Inst.
Nicole Freeman - Averill Park HS, Teacher & TI Regional Inst.

Experience MyOpenMath.com

Room: 205 Session: III

Level: 9-12, College

MyOpenMath.com combines math texts, videos and algorithmically generated questions with numerical, graphical and algebraic expression answers. Customize your course and add your own notes and worksheets.

Vivian Donnelly
Math Teacher
Guilderland High School

Grade K-5 Roundtable

Room: 164 Session: IV

Level: K-5

This roundtable session is an opportunity for Grades K-5 teachers to collaborate and discuss all things related to this course. Potential topics include, but are not limited to: curriculum, assessment, instructional strategies, and resources. This is also an opportunity for Grades K-5 teachers from different school districts to network and share ideas.

Amy Mulyca
Elementary Teacher & PLC Facilitator
Fonda Fultonville CS

The Giant Inch: Fractions and Measurement, Oh my!

Room: 157 Session: IV

Level: K-5, 6-8, 9-12

Learning about Measurement in Vocational Education often means (re)learning about fractions. This Math-in-CTE lesson, The Giant Inch, offers a hands-on, real-life context for learning about fractions. See how the tape measure and Vernier caliper offer authentic number lines for using with fractions. No safety goggles required!

Melody Kearney
Mathematics Teacher - Academic Integration
Capital Region BOCES

Grade 6-8 Roundtable

Room: 155
Session: IV

Level: 6-8

This roundtable session is an opportunity for Grades 6-8 teachers to collaborate and discuss all things related to this course. Potential topics include, but are not limited to: curriculum, assessment, instructional strategies, and resources. This is also an opportunity for Grades 6-8 teachers from different school districts to network and share ideas.

Mary Ann Nickloy
Middle Level Math Leadership Coach
Greater Capital Region Teacher Center

Creating More Class Time with FLIPPED LEARNING

Room: 202
Session: IV

Level: 6-8

Time in the classroom is tight. Flipping your lessons allows for more teacher/student interaction during class, thus more opportunities for the teacher to meet individual needs. It also ends the homework struggle and eliminates the time wasted going over homework in class. If you struggle with having enough time in your classroom, consider this session.

Amy Hirschhoff
Sixth Grade Math Teacher
Schodack Central School District

The SAMR Model and Digital Learning Experiences

Room: 217
Session: IV

Level: 6-8, 9-12

“SAMR” (Substitution, Augmentation, Modification, and Redefinition) is a model that helps educators infuse technology into teaching and learning. Many schools are becoming one-to-one, math teachers often ask, “how am I going to use a Chromebook in Math?” In this session we will explore technology integration through the SAMR model and meaningful uses of technology to enhance student learning (not just technology for technology’s sake). Several digital activities ranging from Pre-Algebra through Calculus will be shared. BYOD: Bring a Laptop, Tablet, or Chromebook.

Willard Hardin III
Math Teacher / New York State Master Teacher
Granville Jr/Sr High School

Small Change for a Big Change

Room: 201 Session: IV

Level: 6-8, 9-12

Most of my students struggle to relate math to their lives, dislike math or find it very difficult, and have low motivation. Many also find it difficult to fit in socially or see why they are important to me, their families, and their community. In this project, students are each challenged to use ten dollars to create a change for at least one other person. The students may not simply give away the money, but must put careful thought into how to best use the money in a positive way. Many are surprised when they find personal gratification in their projects and are pleased to discover the difference just one person with \$10 can make. After learning about this idea many years ago at an AMTNYS workshop, I've been doing it nearly every year since. Find out how I fund it, what checkpoints exist in the project, and how to use it to teach or reinforce some of your math standards.

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Katie McNally
Mathematics Teacher
Farnsworth Middle School - Guilderland CSD

TI Codes: Creating a STEM Classroom

Room: 152 Session: IV

Level: 6-8, 9-12

Go beyond the assessments with the graphing calculator. We will learn how to code to create an engaging classroom where students of all abilities can start a pathway towards a career in STEM.

Dana Morse
Consultant for Educational Technology
Texas Instruments

Introduction to Desmos

Room: 214
Session: IV

Level: 6-8, 9-12

This presentation will expose people new to Desmos to some of the online graphing calculators functions. We will look at writing regression, using sliders, and even some online activities.

Peter Omura
Teacher
Edmund O'Neal Middle School

Regan Morency
Teacher
Edmund O'Neal Middle School

Differentiating in the Mathematics Classroom

Room: 213
Session: IV

Level: 6-8, 9-12

What we're doing to differentiate in our Mathematics classes, lesson samples, resources, and templates to utilize to meet the varying needs of our learners. Includes; Choice boards, scaled assignments, HyperDocs, flipped classrooms, etc.

Rachel Peschieri
Mathematics Teachers
Guilderland High School

Nicole Kaya
Mathematics Teachers
Guilderland High School

TI Rover in Algebra I

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Level: 9-12

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Bobbie Bie - Rhinebeck HS, Teacher & TI Regional Instructor
Casey Gannon - Greenville HS, Teacher & TI Regional Inst.
Nicole Freeman - Averill Park HS, Teacher & TI Regional Inst.

Algebra 1 Roundtable

Room: 161 Session: IV

Level: 9-12

This roundtable session is an opportunity for Algebra 1 teachers to collaborate and discuss all things related to this course. Potential topics include, but are not limited to: curriculum, assessment, instructional strategies, and resources. This is also an opportunity for Algebra 1 teachers from different school districts to network and share ideas.

Stephanie Conklin
Math Teacher
Colonie Central High School

Geometry Roundtable

Room: 162 Session: IV

Level: 9-12

This roundtable session is an opportunity for Geometry teachers to collaborate and discuss all things related to this course. Potential topics include, but are not limited to: curriculum, assessment, instructional strategies, and resources. This is also an opportunity for Geometry teachers from different school districts to network and share ideas.

David Fields
HS Math Teacher
Colonie Central High School

Algebra 2 Roundtable

Room: 264 Session: IV

Level: 9-12

This roundtable session is an opportunity for Algebra 2 teachers to collaborate and discuss all things related to this course. Potential topics include, but are not limited to: curriculum, assessment, instructional strategies, and resources. This is also an opportunity for Algebra 2 teachers from different school districts to network and share ideas.

Scott Monuteaux
High School Math Teacher
Columbia High School

Nancy VanOort
High School Math Teacher
Columbia High School

Calculus & Pre-Calculus Roundtable

Room: 265 Session: IV

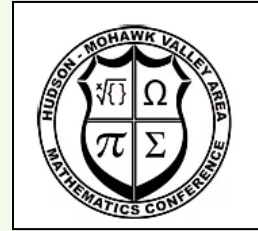
Level: 9-12

This roundtable session is an opportunity for Pre-Calculus teachers to collaborate and discuss all things related to this course. Potential topics include, but are not limited to: curriculum, assessment, instructional strategies, and resources. This is also an opportunity for Pre-Calculus teachers from different school districts to network and share ideas.

Karen Swift
Mathematics Teacher
Saratoga Springs High School

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Mathematics Conference**

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For specific questions or if you are interested in presenting, please contact:

Carrie Peverly
Academic Administrator, Mathematics 6 – 12
Via email pevecarr@shenschools.org



Regional Committee Members

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- *Danielle Bouton-Wales* ~ Registration Chair
- *Frank DiDonato* ~ Treasurer
- *Karen Smith* ~ Refreshments Chair
- *Lucky Palmer* ~ Vendors/Exhibitors Chair
- *David Fields & Stephanie Conklin* ~ 2020 Presenter Coordinators
- *David Hurst* ~ Speaker Gifts & Volunteer T-Shirts Chair
- *Chris Pappis* ~ Webmaster
- *Mary Ann Nickloy* ~ CTLE/Professional Development Credit Chair
- *Scott Monuteaux* ~ Social Media & Promotions Chair
- *Carrie Peverly* ~ 2021 Chair

We would like to thank:

South Colonie Central School District
Colonie High School Mathematics Department
South Colonie School Districts IT Department
Colonie High School Student Volunteers

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HMOVAMC.*

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