

Program Details for Thursday, November 2, 2017

Keynote

8:30 AM

8:30-10:00

Imperial A
6-8

T4001, 90-minute session

Effective Mathematics Teaching Practices: A Framework for Mathematics Teaching and Learning

Peg Smith, University of Pittsburgh

The session will focus the eight effective mathematics teaching practices described in *Principles to Action: Ensuring Mathematical Success for All* (NCTM, 2014) and elaborated on in the newly published companion books entitled "Taking Action: Implementing Effective Mathematics Teaching Practices" The activities in which participants will engage with provide them with the opportunity to develop their understanding of the effective teaching practices and how the practices can promote equity and the development of a positive mathematics identity.

Sessions

8:30 AM

8:30 - 9:15

Imperial D
9 - 12

T1001, 45-minute session

Making Math Real to Me

Ericka Bell, Randolph Early College HS

Students apply the knowledge of the unit to the real world.

8:30 - 9:15

Oak A
6 - 12

T1003, 45-minute session

Standards Based Grading in a 1:1 School

Stacie Boyer, Audrey McBride, Caroline Smith, Gravelly Hill Middle School

Interested in learning how to better communicate students' present level of learning? Join us for a discussion on the impact of Standards Based grading in our teaching practices and in the process of encouraging students to develop a growth mindset in math. We will share specific ways we use technology to work smarter and not harder.

8:30 - 9:15

Cedar B
9 - 12

T1005, 45-minute session

"Cold, Warmer, HOT!" in Precalculus and Calculus

Dave Cesa and Jeff Knull, Charlotte Latin School

Desmos graphs and activities infused with the "Cold, Warmer, HOT!" hide-and-seek strategy build students' mathematical intuition in Precalculus/Calculus. Learn how to make and use them

8:30 - 9:15

Auditorium 2
3 - 5

T1007, 45-minute session

Math Facts Using the Distributive Property

Janelle Chisholm, Northern Arizona University

We will use the distributive property to master multiplication facts.

8:30 - 9:15

Auditorium 4
PreK - 5

T1009, 45-minute session

Utilizing Literacy to Support Effective Math Instruction

Erin Hone and Marna Winter, Elon University

This session will highlight literacy skills and practices that when integrated into math instruction, enhance conceptual math learning. K-5 integration strategies will be shared.

8:30 - 9:15

Auditorium 1
PreK - 2

T1011, 45-minute session

It's not just fluff--- how to reach the needs of gifted math learners in regular education classroom"

Andrea Judge and Mariah Morris, Moore County Schools

In this session, we will present how to collaborate and team-teach in the regular ed classroom to meet the needs of gifted students. Ideas for differentiation with centers, tiered lessons, and stem activities.

8:30 - 9:15

Augusta A
9 - 12

T1013, 45-minute session

Innovative Co-Teaching Strategies

April McConneaughey, Ed.D, Pathways Educational Services, LLC

This session will examine innovative Co-teaching Strategies that will help create rigorous learning environments that promote student growth and proficiency.

8:30 - 9:15

Cedar C
6 - 8

T1015, 45-minute session

Hands on Math in Middle School

Jamie Floyd, Moore County Schools and Becky Oldham, West Pine MS

Tired of worksheets? Need to increase student engagement? We will explore hands on activities for grades 6 - 8 concepts and skills.

8:30 - 9:15

Turnberry
K - 12

T1017, 45-minute session

Successful Coaching: Learning Together

Ginger Rhodes, UNCW

Have you thought about becoming a mathematics coach? During this session we will discuss effective coaching practices and explore coaching tools to use with colleagues.

8:30 - 9:15

Cedar A
3 - 5

T1019, 45-minute session

Finding Math Resources in Unexpected Places

Erin Shope & Sharon McRorie, Asheville Art Museum and Randy Harter, Buncombe County Schools (retired)

Explore the 17-year history of "More than Math", an innovative 3rd-8th grade mathematics curriculum centered upon the collection of the Asheville Art Museum. Math really is everywhere!

8:30 - 9:15

Pinehurst
6 - 12

T1021, 45-minute session

Going Beyond What Is

Mike Swinson, Washington HS and Ryne Cooper, West Iredell HS

Are you asking the right questions? Join us as we turn "what is..." questions into thought provoking, motivating, and a true check of understanding.

8:30-9:15

Biltmore B
3 - 5

T1023, 45-minute session

Exploring New Uses for Fraction Equations

Amy Hewitt, Naomi Jessup and Vicki Jacobs, UNCG

Discover new ways to use equations in fraction instruction! We will explore how to pose equations linked to student explanations and strategies for story problems.

8:30-9:15

Auditorium 3
6 - 8

T1024, 45 minute session

No More Keep, Change, Flip!

Robin Barbour, Math Consultant

Workshop focuses on strategies to help students model and understand fraction division as it progresses from 5th to 7th grade in the revised NC math standards. . Strategies such as using the common denominator, naming fraction remainders, and deriving the standard algorithm will be modeled and discussed.

8:30-9:15

Oak B
PreK - 5

T1025, 45-minute session

Beauty is in the Beast

Angela Kern and Pfeiffer University Teacher Candidates, Pfeiffer University

Come explore the relationship between numbers and art - visual, musical, dramatic, and dance! Elementary teachers will leave with integration ideas.

8:30-9:15

Oak C
K-12

T1026, 45-minute session

Let's Get Messy!!! Mathematical Modeling

Donna Sabeno, Pearson Learning

Further your understanding of the research behind and the meaning of Mathematical Modeling. By analyzing the modeling cycle and examining research found in the GAIMME report, you will walk away with more insight into Mathematical Modeling. You will have the opportunity to experience several highly engaging modeling lessons. By the conclusion of this workshop, you will have ideas that can be used immediately in your classroom to meet required modeling standards!

8:30-10:00

Colony C
K-12

T2001, 90 minute session

NCDPI & NC2ML

Lisa Ashe, NCDPI

In this session, the NC Collaborative for Mathematics Learning will be sharing information and gathering input from district leaders on the implementation of the Revised K-12 Math Standards.

8:30 - 10:00

Arrowhead
K - 12

T2003, 90-minute session

Representational Code Switching

Michael Bossé and Catherine Fountain, Appalachian State University

Students commonly talk about a mathematical representation using words and ideas from another representation? What does this say about their mathematical understanding? We will see.

8:30 - 10:00

Augusta B
PreK - 5

T2005, 90-minute session

Enhancing Visual Discrimination and Numeracy

Suzy Koontz, Learn Thru Movement/Math & Movement

Have you ever seen algebraic strategies used for enhancing visual discrimination and numeracy in young children? Come learn how this approach rapidly improves student outcomes!

8:30 - 10:00

Biltmore A
9 - 12

T2007, 90-minute session

Creating Math Identity Using Formative Feedback

Garrett Pedersen and Angela Cooper, Research Triangle High School

In this session, two teachers offer research-based strategies and applications that you can use to reach students' diverse classroom needs by providing effective, ongoing feedback.

Program Details for Thursday, November 2, 2017

Workshops 8:30AM

8:30 - 10:00 Imperial G

T3001, 90-minute workshop 3 - 5

Digging through the Domains

Crystal Williams and Jessica Volk, Franklin County Schools

Join us to learn about the math fun days we hosted each nine weeks to review essential skills. Engaging activities await you!

8:30 - 10:00 Imperial H

T3003, 90-minute workshop 3 - 5

Teaching Fractions for Understanding

Donna Boyles and LMC Students, Lees

McRae College

Classroom Strategies and hands-on activities will be provided to help students develop a deep and flexible understanding of fractions that is aligned with the NC Standards.

8:30 - 10:00 Guilford A

T3005, 90-minute workshop 9 - 12

Factoring Using the Area Model

Kimberly Clark, Charles D. Owen HS and

Karen McPherson, Buncombe County Schools

We will present a lesson focused on factoring quadratics in which students use an area model similar to the development of operations with numbers. Walk away with handouts ready to use in class.

8:30 - 10:00 Imperial B

T3007, 90-minute workshop 9 - 12

Simulation Based Inference

Wanda Coyle, University of North Carolina School of the Arts

Can a person smell Parkinson's Disease? Is there a relationship between handspan and the number of Starburst candies a person can grab? Come investigate these questions and more using simulation.

8:30 - 10:00 Sandpiper

T3009, 90-minute workshop 6 - 8

Igniting Minds of math with LEGO

Bricks

Shirley Disseler, High Point University

Participants in this hands-on, interactive workshop will use a common child's toy, "The LEGO Brick" to engage in math conceptual understanding of fractions, integers, and whole number sense. Activities will be provided that will spark interest in learning and excite students about math.

8:30 - 10:00 Imperial C

T3011, 90-minute workshop 6 - 12

Folding Fun for the Fundamentals

Tracy Gilbert, Kathleen Fick, Ondrea Noddin, and Katherine Foxx, Methodist University

Participants, through folding everyday items, will investigate and explore geometric concepts, create and identify shapes and solids, and practice mathematical vocabulary. Handouts and materials provided.

8:30 - 10:00 Pebble Beach

T3013, 90-minute workshop 9 - 12

I now pronounce you...co-teachers

Joy Howard, Davie County Schools

Navigating collaborative teaching can be tricky. This session will help co-teachers learn to put their professional relationship first, in order to improve student outcomes.

8:30 - 10:00

T3015, 90-minute workshop

Crazy 8s Club Gets Kids Fired Up About Math!

Mike McEwan, Bedtime Math Foundation

Try wacky activities like Toilet Paper Olympics, and learn how to start your own Crazy 8s afterschool club with a free kit from Bedtime Math!

8:30 - 10:00

T3017, 90-minute workshop

OMG! (Our Math Games)

Maggie Nesbitt and Heather Davis, Greene Early College High School

What's your plan for Monday? IDK. More boring worksheets? SMH! Come join the fun! This session will make you LOL! BTW, we'll share ready-made games to use ASAP.

8:30 - 10:00

T3019, 90-minute workshop

Songwriting 101: Lesson Plans in a Song Format

LaMar Queen, Locke HS

Come and learn how to facilitate a songwriting workshop for your students or become an educational songwriter yourself! In this session I will go over the basics of songwriting and give the tools needed to confidently implement with your students. This is perfect for a unit project!

8:30 - 10:00

T3021, 90-minute workshop

Developing Student Confidence in Mathematics With the Use of Children's Books

Terry Rose, Western Carolina University

Participants will examine children's books and participate in hands on activities and see how they can be used to strengthen students' confidence in mathematics.

8:30 - 10:00

T3023, 90-minute workshop

Clothesline Math: a routine that won't hang students out to dry

Alisan Royster, Concord Middle School and Daniel Wicks, Francis Bradley Middle School

Strengthen students' number sense and build conceptual understanding, using clotheslines as dynamic number lines, with this simple, yet powerful, strategy.

8:30 - 10:00

T3025, 90-minute workshop

Valuing children's thinking through effective questioning

Montana Smithey, University of North Carolina at Greensboro

Participants will explore questioning as a way to better understand children's thinking when solving story problems related to place value.

8:30 - 10:00

T3027, 90-minute workshop

Marvelous Math Mistakes

Meredith Stanley, Math Coach and Specialist and Marta Garcia, Math Coach and Specialist

Teachers will engage in tasks and student work in order to analyze the role of mistakes in the development of conceptual understanding and mathematical mindset.

Imperial F

PreK - 5

Blandwood

9 - 12

Colony B

6 - 12

Tanglewood

3 - 5

Morehead

6 - 8

Colony A

PreK - 2

Imperial E

3 - 5

8:30 - 10:15

T3029, 90-minute workshop

Algebraic Reasoning and Reaching All Students: Using a shopping model to create a common classroom schema for linear algebra.

Austin James, Millbrook High School and

Cyndi Edgington and Valerie Faulkner, North Carolina State University

Teach algebra in a rigorous and accessible way using a tried and true shopping model. Leave with the tools you need for your own classroom!

8:30-10:00

T3031, 90-minute workshop

Develop a positive mathematical identity with Mathematical Selfies

Axelle Faughn and Kathy Jaqua, Western Carolina University

Session participants will engage in a mathematical treasure hunt. We will share ideas and results from 3 years of work with Mathematical Selfies.

Keynote 9:30 AM

9:30-11:00

T4003, 90-minute session

Games and Assessment Strategies to Ensure Addition and Multiplication Fact Fluency

Jenny Bay Williams, University of Louisville

Developing automaticity with addition and multiplication facts is fundamental and we need to make fundamental shifts in how we approach the teaching

Sessions 9:30 AM

9:30-10:15

T1027, 45-minute session

NC Testing Updates

Josh Griffin, Department of Public Instruction

Learn about recent testing updates for all North Carolina EOGs, EOCs, NCFEs and NC Check-Ins!

9:30 - 10:15

T1029, 45-minute session

Addressing Culture and Diversity in 3-5 Mathematics Classrooms: Strategies, Activities, & Lessons from Cultures Across the World

Deborah Basinger-Gaither and Tasha Barknight, Winston Salem/Forsyth County Schools

Discover research-based strategies and rich mathematical tasks that address diversity and cultures. Implementing these strategies helps learners become confident mathematicians with a growth mindset.

9:30 - 10:15

T1031, 45-minute session

The Power of Feedback

Meghan Boutwell, Buncombe County Schools

This presentation will discuss the product of a year and a half project about student self-assessment based on NC Common Core State Standards.

9:30 - 10:15

T1033, 45-minute session

Free Money!

Sandy Childrey, Athens Drive High School

Curious about the NCCTM migrant process? This session will discuss the pitfalls, recommendations, curriculum and NCEES connections of the NCCTM migrant process. Handouts will be provided.

Program Details for Thursday, November 2, 2017

<p>9:30 - 10:15 T1035, 45-minute session Thinking Inside and Outside the Box Nara Cocarelli, <i>Lincoln County Schools</i> <i>Learn the box method to help students connect multiplying multi-digit numbers, simplifying square roots, completing the square and biology.</i></p>	<p>Cedar A 6 - 12</p>	<p>9:30 - 10:15 T1053, 45-minute session Mastering Standards through Spiral Review Lisa Zekanis and Jill Britt, <i>Southeastern Academy Charter School</i> <i>Keep previously learned skills sharp and new skills more accessible using brain-based techniques that require just minutes a day. Free, year-long resource included.</i></p>	<p>Auditorium 2 PreK - 2</p>	<p>10:30 - 11:15 T1063, 45-minute session Every Student Deserves a Voice in the Mathematics Classroom Lloyd Jones, <i>Curriculum Associates</i> <i>Mathematical discourse, selected and sequenced properly, brings into the mathematical classroom a variety of cultural influences that deepen and enrich the discussion.</i></p>	<p>Auditorium 4 PreK - 5</p>
<p>9:30 - 10:15 T1037, 45-minute session Platonic and Archimedean Solids for All Ages Randy Harter, <i>Retired Buncombe County Schools and Former NCCTM President</i> <i>Platonic and Archimedean Solids: fascinating shapes for pre-schoolers to explore and challenging mathematics for high school students.</i></p>	<p>Augusta A K-12</p>	<p>9:30 - 11:00 T2009, 90-minute session Heavy Drinking, Melting Ice Cream and Homeruns Donald Cameron, <i>Davidson Day School</i> <i>Teachers must change the way mathematics is taught in their classroom so that the math they teach is the math that their students will use and need.</i></p>	<p>Auditorium 1 9 - 12</p>	<p>10:30 - 11:15 T1065, 45-minute session Engage Students with Contextual Applications Jay Martin and Carrie Hoffman, <i>Wake Technical Community College</i>; Tamara Orm andy, <i>Garner Magnet High School</i> <i>Do you use contextual applications from careers? Secondary teachers collaborated with CC Program Directors to build activities for the high school curriculum. Come experience them!</i></p>	<p>Cedar A 9 - 12</p>
<p>9:30 - 10:15 T1041, 45-minute session Utilizing Literacy to Support Effective Math Instruction Erin Hone and Marna Winter, <i>Elon University</i> <i>Sessions highlights literacy skills and practices that integrated into math instruction enhance conceptual math learning. K-5 integration ideas will be shared.</i></p>	<p>Auditorium 4 PreK - 5</p>	<p>Keynote 10:30 AM</p>		<p>10:30 - 11:15 T1067, 45-minute session Does Your Design Reveal or Conceal? - How effective task design exposes mathematics that a student knows. Katie Mawhinney, <i>Appalachian State University</i> and Luke Walsh, <i>Catawba Valley Community College</i> <i>Come explore and analyze a wide range of task design techniques that can be applied to tasks found in a Pre-Algebra to a Calculus course.</i></p>	<p>Oak A College</p>
<p>9:30 - 10:15 T1043, 45-minute session The Number Devil: A Math Adventure Matt Mcpherson, <i>DAVIE county schools</i> <i>A novel study that perfectly pairs middle school curriculum in a fun easy to read novel.</i></p>	<p>Biltmore B 6 - 8</p>	<p>10:30-12:00 T4005, 90-minute session A Brief History of Math - The Musical Lee Stiff, <i>North Carolina State University</i> <i>A stylized history of elementary mathematics (up to the beginnings of calculus) should be shared with the masses! No better way to learn about mathematical folk and ideas than in song! Unfortunately, it's a one-man act, so the singing might leave a lot to be desired. But, if you've got the stomach for parodies, come join your crazy ex math teacher!</i></p>	<p>Guilford C K-12</p>	<p>10:30 - 11:15 T1069, 45-minute session Strike! Bowling for EOG Review Audrey McBride, Stacie Boyer, and Caroline Smith, <i>Gravelly Hill Middle School</i> <i>Ever wonder how to enhance your review of standards prior to the end of grade test? Come see how to create a fun, engaging EOG review that is standards based, prepares students for the longevity of the test while motivating them to meet personal goals. Attendees will leave with access to a google presentation with links to pre-created materials that can be edited and used to meet their own needs.</i></p>	<p>Oak A 6 - 8</p>
<p>9:30 - 10:15 T1045, 45-minute session Making Students Matter Tracie McLemore Salinas, <i>Appalachian State University</i> <i>Showing students they matter engages all learners in spite of background. Reflect on challenging questions and examine tools for your practice.</i></p>	<p>Oak A 9 - 12</p>	<p>Sessions 10:30 AM</p>		<p>10:30 - 11:15 T1071, 45-minute session Addressing Culture and Diversity in 6-12 Mathematics Classrooms: Strategies, Activities & Lessons from Cultures across the World Joan Ray and Ana Posada, <i>Winston-Salem Forsyth County Schools</i> <i>Let's engage in culturally situated examples, each linked to CCSS to show how mathematics can be so much more than a word problem or an exercise in a worksheet with little or no context. Enhance instruction by teaching and assessing mathematics in ways that respect diversity and extend the understanding to a personal context.</i></p>	<p>Oak B 6 - 12</p>
<p>9:30 - 10:15 T1047, 45-minute session Intervention through Small Group Instruction within the Classroom Caroline Smith, Audrey McBride, and Stacie Boyer, <i>Gravelly Hill Middle School</i>; Anna Kearney, <i>AL Stanback Middle School</i> <i>Join us on our journey to learn how to meet the needs of all learners in your classroom without losing your mind. We will discuss how we blend small group instruction with data analysis to increase student engagement and understanding.</i></p>	<p>Oak C 6 - 8</p>	<p>10:30 - 11:15 T1057, 45-minute session Subitising through the Years! Jenny Ainslie, <i>Wake County Public School System</i> and Valerie Faulkner, <i>North Carolina State University</i> <i>Come learn how you can teach deep mathematical concepts and develop number sense through a daily routine of subitising!</i></p>	<p>Meadowbrook PreK - 2</p>	<p>10:30 - 11:15 T1073, 45-minute session Reality Math Dorothy Sulock, <i>University of North Carolina at Asheville</i> <i>Free independent-study units on personal finance, exercise and nutrition, renewable energy, sports, oil, transportation, and more.</i></p>	<p>Augusta A 9 - 12</p>
<p>9:30 - 10:15 T1049, 45-minute session Calculus C_ur_e or Calculus C_urse? Luke Walsh, <i>Catawba Valley CC</i> <i>How much Algebra can be removed from Calculus? Come participate in activities and discuss if this approach is a curse or a cure for Calculus.</i></p>	<p>Cedar B College</p>	<p>10:30 - 11:15 T1059, 45-minute session Amp Up Your Warm Up Lauren Baucom and Kelsey Anselmir, <i>Forest Hills High School</i> <i>Ever get bored of the spiraling warm up? We have been diving in with head scratching warm ups in our Math 1, 2 & 3 classes and it's changing our math classrooms!</i></p>	<p>Biltmore B 9 - 12</p>	<p>10:30 - 11:15 T1061, 45-minute session Math Fair: How Do I Make this Happen?? Mackenzie Sumer Inman, <i>TCR, Buncombe County</i> <i>Come learn how to run a school or district fair. What to expect, tips and tricks, and how to be prepared. Also learn more about the regional and state level Math Fairs.</i></p>	<p>Pinehurst K - 12</p>
<p>9:30 - 10:15 T1051, 45-minute session Developing Math Reasoning: an Essential Component to Instruction Holly Woody, <i>North Cove Elementary</i> and Heather Highman, <i>East McDowell MS</i> <i>Examine math reasoning as an integral part of instruction. Focus on fractions; highlighting benchmark fractions, estimation, and number sense.</i></p>	<p>Turnberry 3 - 5</p>				

Program Details for Thursday, November 2, 2017

<p>10:30 - 11:15 T1075, 45-minute session Using Twitter for Personal-Professional Development Sara Vaughn, Northwest Guilford Middle School <i>Need a regular boost of positive energy from passionate educators? Come learn how to connect to educators through Twitter.</i></p>	<p>Cedar B K - 12</p>	<p>10:30-12:00 T2019, 90-minute session Get Those Kids Talking! How to Implement Effective Math Talks in K - 5 Kelly Reigle, Danielle Long, and Stacey Wilson, Union County Public Schools <i>Opportunities for discussion and shared learning are critical in math classrooms. We will share structures and strategies for integrating effective math talk into K - 5 classrooms.</i></p>	<p>Auditorium 2 PreK - 5</p>	<p>10:30 - 12:00 T3045, 90-minute workshop Review! How to Prep Your Students for Their Next Assessment Danielle Swing, McDougale Middle School <i>Want to make sure your students are ready for the test? Learn fun and engaging ways to review the material.</i></p>	<p>Colony A 6 - 8</p>
<p>10:30 - 11:15 T1077, 45-minute session Strategies for Engaging Math Talk Jessica Vernon and Andrea Hollifield, Buncombe County Schools <i>Let's examine ways to initiate and encourage math discourse. We will outline norms and routines for facilitating a variety of strategies that promote engaged students.</i></p>	<p>Colony C 6 - 12</p>	<p>Workshops 10:30AM</p>		<p>10:30 - 12:00 T3033, 90-minute workshop Enhance Rapport and Learning through Co-planning Charity Cayton and Maureen Grady, East Carolina University; Renea Baker, D.H. Conley High School <i>Hosting an intern? Participate in professional learning communities? Come learn about six co-planning strategies to use with interns and colleagues to support student thinking.</i></p>	<p>Guilford A 9 - 12</p>
<p>10:30 - 11:15 T1079, 45-minute session Comparing Fractions: The Butterfly is Dead Ashley Seegmiller and Nona Baker, Belville Elementary School <i>Due to pressures of standardized testing quick tricks like cross multiplication have permeated elementary classrooms. In this presentation we will explore best instructional practices that will enhance instruction for conceptual understanding of comparing fractions.</i></p>	<p>Cedar C 3 - 5</p>	<p>10:30 - 12:00 T3035, 90-minute workshop Can You Escape? Heather Davis and Maggie Nesbitt, Greene Early College High School and Kayla Chandler <i>Experience an escape room math style while you work together to find clues, solve puzzles, and have fun! Handouts and Google folder will be shared.</i></p>	<p>Pebble Beach 9 - 12</p>	<p>10:30 - 12:00 T3049, 90-minute workshop Deepen the Groove with BDR Tima Williams, Asheville City Schools <i>Use a three part routine to create a growth culture of math in your classroom that highlights moving from concrete to abstract with every child.</i></p>	<p>Tanglewood PreK - 2</p>
<p>10:30 - 12:00 T2011, 90-minute session Visual Fraction Models: Positive Fraction Identity Kwaku Adu-Gyamfi, East Carolina University <i>Many students have a negative attitude towards fractions. Come learn how to promote positive fraction identity in students via visual fraction models.</i></p>	<p>Biltmore A 3 - 5</p>	<p>10:30 - 12:00 T3037, 90-minute workshop Using LEGO Bricks to Teach Mathematics Shirley Disseler, High Point University <i>The LEGO brick is a child's toy with enormous educational benefits! In this hands-on, interactive workshop participants will build math problems, learn how to conceptualize procedures of math, and see how math can come alive for students.</i></p>	<p>Sandpiper 3 - 5</p>	<p>10:30 - 12:00 T3051, 90-minute workshop Making Algebra Child's Play Darlene Williford, Borenson & Associates, Inc. <i>Learn how a visual and kinesthetic approach to teaching algebraic concepts enables students to grasp "sophisticated" looking concepts of linear algebra. Get a taste of the new Hands-On Equations Fractions.</i></p>	<p>Blandwood 3 - 5</p>
<p>10:30 - 12:00 T2013, 90-minute session Learning Mathematics as a Second Language Michael Bossé and Catherine Fountain, Appalachian State University <i>The learning of mathematics and the stages second language acquisition share many commonalities with significant implications for curriculum teaching, learning and assessment. We investigate these.</i></p>	<p>Arrowhead K - 12</p>	<p>10:30 - 12:00 T3039, 90-minute workshop Fold+ Glue+ Cut= Notebook Foldables Evalee Parker, DINAH.COM <i>New to Notebook Foldables®? Turn on the motivation factor with three-dimensional graphic organizers. Discover how to morph student notebooks into dimensional, individualized, and brain-smart tools.</i></p>	<p>Colony B 3 - 5</p>	<p>10:30 - 12:00 T3053, 90-minute workshop Math & Literacy...Together at Last Stacy Wozny and Cindy Farner, Iredell Statesville Schools <i>Why stop storytime at middle school? Find ways to pair mathematical reasoning and problem-solving with children's literature and nonfiction texts.</i></p>	<p>Imperial B 6 - 8</p>
<p>10:30 - 12:00 T2015, 90-minute session Developing Mathematical Mindsets (Students & Teachers) Leanne Daughtry, Johnston County Schools <i>Let's talk about mindsets! How do we model a growth mindset and cultivate positive student mindsets toward mathematics? We'll explore resources to help you start (or continue) your journey toward developing a growth mindset.</i></p>	<p>Turnberry PreK - 5</p>	<p>10:30 - 12:00 T3041, 90-minute workshop Math 1 Modeling with Parachuting Lego Men Julie Riggins, East Forsyth High School <i>Come participate and see how my students constructed parachutes for Lego men and used their data to learn about linear and quadratic functions.</i></p>	<p>Imperial A 9 - 12</p>	<p>10:30 - 12:00 T3055, 90-minute workshop I'm with the Band Christie Wuebbles, Wallace-Rose Hill HS <i>Bulldog nation presents, The AFM Bottle Band in the Exhale Tour. Rolling Rocks says, "Trig functions make beautiful music; a must-see show!"</i></p>	<p>Imperial F 9 - 12</p>
<p>10:30 - 12:00 T2017, 90-minute session The Amazing Hundred Number Grid Suzy Koontz, Learn Thru Movement/Math & Movement <i>Learn strategies for using the Hundred Number Grid to discover number patterns, add/subtract two-digit numbers, round numbers, understand fractions, decimals and percents and more!</i></p>	<p>Augsta B PreK - 5</p>	<p>10:30 - 12:00 T3043, 90-minute workshop What To Do With All The Data!!!! Busola Stackhouse, Charlotte Mecklenburg Schools <i>Assessments are in, now what do I do? Participants in this session will analyze student work, identify misconceptions, and learn to act on them.</i></p>	<p>Imperial G 3 - 5</p>	<p>10:30-12:00 T3057, 90-minute workshop A Positive, Problem-Solving, Probability Packet Ondrea Noddin, Kathleen Fick, Tracy Gilbert, and Katherine Foxx, Methodist University <i>Participants will be engaged in a classroom-ready collection of probability and statistics activities that encourage exploration and stress conceptual understanding. Handouts provided.</i></p>	<p>Imperial C PreK - 5</p>
				<p>10:30-12:00 T3059, 90-minute workshop Can we Learn Math by Looking at Art? Randy Harter, Buncombe County Schools (retired) and Erin Shope and Sharon McRorie, Asheville Art Museum <i>Yes! Explore the only program of its kind, "More than Math", a 3rd-8th grade curriculum which presents students with mathematical tasks using works of art from the Asheville Art Museum's collection.</i></p>	<p>Imperial E 3 - 5</p>

Program Details for Thursday, November 2, 2017

10:30-12:00 Imperial H
T3061, 90-minute workshop 6 - 8
Energize Teaching Area. Use Contest Problems!
Dennis Mulhearn, Valley Stream South HS (retired)
Want an effective tool to teach area? Math contests are perfect, providing problem-solving gems. Work through a dozen area classics. Leave with over 60 problems.

Keynote 11:30 AM
11:30-12:15 Auditorium I
T4007, 90-minute session 9-12
Five Essentials to Ensure Each and Every Student Succeeds
Joleigh Honey, Mathematics Vision Project
Join us during this session where we will identify and discuss five essentials that promote equity, create a proactive school climate, and ensures success for every student. This session is interactive and participants will leave with specific strategies to improve outcomes for all students.

Sessions 11:30 AM
11:30 - 12:15 Cedar C
T1081, 45-minute session College
Supporting Prospective Teachers' Engagement with Student Thinking About Fractions
Katherine Baker, Elon University
This presentation will share research findings about 4th grade prospective teachers' engagement with student thinking about fractions. Supports that facilitate engagement with student thinking will be shared.

11:30 - 12:15 Imperial D
T1083, 45-minute session PreK - 2
The Ins and Outs of Number Talks: Developing Computational Fluency in the K-2 Classroom
Cydney Bates, Cameron Park Elementary
Uncover the strength of Number Talks to build students' number sense in the K-2 classroom. Collaboration, communication, and creativity are essential components in developing students who think critically about mathematics. During this session, you will explore a variety of Number Talks to support student discourse aimed to develop both procedural fluency and conceptual development of essential K-2 mathematics standards.

11:30 - 12:15 Biltmore B
T1085, 45-minute session 6 - 12
It's as easy as A-B-C: Department Wide Grading
Lauren Baucom, Forest Hills High School
How do we know if an "A" in my class equals an "A" in my neighbor's class? This question plagued me and I'll tell you how the solution we came up with helps students improve!

11:30 - 12:15 Cedar A
T1087, 45-minute session 3 - 5
Math Talks: A Tool for Fostering Critical Thinking Skills
Christopher Boe, Pfeiffer University
We will explore how implementing math talks can help students develop critical and creative thinking skills while bolstering their mathematical content knowledge and process skills.

11:30 - 12:15 Pinehurst
T1089, 45-minute session 6 - 12
Using Scientific Investigations in Math Classes
Michelle Cetner, NC State University
This session discusses ways to incorporate scientific investigations in the math class to engage students and encourage appreciation for mathematical application. Math fair also discussed.

11:30 - 12:15 Meadowbrook
T1091, 45-minute session K - 12
Equity and Identity - How our grouping practices effect students
Valerie Faulkner, North Carolina State University
This talk considers assumptions about 'acceleration' and 'remediation' and re-frames our work as teachers around Equity and mathematical identity. Solutions provided!

11:30 - 12:15 Oak A
T1093, 45-minute session 6 - 8
Spiraling 6th Grade Math Curriculum
Whitney Honeycutt and Danyah Hill, Union County Public Schools
Spiraling the five mathematical strands with an emphasis on integrating the number system throughout all remaining standards allowing students to achieve mastery of concepts.

11:30 - 12:15 Cedar B
T1095, 45-minute session 9 - 12
Stimulating Interest in Math Through Math Contests
Vincent Snipes and Pamela Moses-Snipes, Winston-Salem State University
Teacher tips to get students participating in math contests, becoming more interested in math, and preparing for high school contests will be discussed.

11:30 - 12:15 Colony C
T1097, 45-minute session 9 - 12
Are we all in alignment?
Wendy Srinivasan, Corinth Holders HS
Alignment between grade levels and courses was our goal. Come hear how we decided to embark on this challenge, how we got started, where we are now, and where we hope to go from here. We will talk about the successes and challenges of the process, and suggestions for how to start the same process in your school.

11:30 - 12:15 Augusta A
T1099, 45-minute session 6 - 8
Healthy Math
Dorothy Sulock, University of North Carolina at Asheville
Free printable math units for all grade levels (improved) utilizing math to understand sugar, fiber, and calories in foods.

11:30 - 12:15 Oak C
T1101, 45-minute session 6 - 12
Putting the I (Content Teacher) and U (EC Teacher) Back into Inclusion
Amanda Thompson and Artia Scott, Westerly Hills Academy
The implementation of IEP, 504s, and ELL plans within your instruction can be a daunting task. I want to assist you in the navigation of "marrying" the two worlds."

11:30-12:15 Oak B
T1102, 45 minute session 9 - 12
Collaborative Problem-Solving and Chess
Lance Bledsoe, Consultant
Participants will participate in a group problem-solving approach, and design a problem-solving activity for their students. (Chess experience not required.)

11:30 - 1:00 Auditorium 3
T2021, 90-minute session 6-8
6-8 NC DPI Updates Session
Lisa Ashe and Joseph Reaper, NCDPI
This session will focus on updates in MS mathematics. NC DPI consultants will share the major changes of the revised 6-8 math standards, resource development and the implementation plan for the 2017-18 school year.

11:30-1:00 Auditorium 4
T2023, 90-minute session 9 - 12
Transforming a Lesson to a Desmos Activity
Kimberly Clark and Britney Clubb, Charles D. Owen High School
We will show you how we took a traditional lesson and transformed it to a Desmos activity for students.

Keynote 12:30 PM
12:30-1:15 Imperial D
T4009, 45-minute session K-12
The MathTwitterBlogsphere: Our Online Professional Learning Community
Jennifer Wilson, Slow Math Movement
The #MTBoS is an open community of math educators who connect to each other through Twitter, blogs, and a weekly Global Math Department webinar. In this session, we will explore #MTBoS-created resources that realize the tenets of any PLC: learning is our focus, collaboration is our culture, and results guide our decision. Come ready to take back ideas for your classroom and leave knowing how you can share what you think, learn, and wonder with a broad, connected audience.

Sessions 12:30 PM
12:30 - 1:15 Biltmore B
T1103, 45-minute session 3 - 5
Making the Metric System Fun
Michelle (Shelly) Alford, Onslow County Schools
This interactive workshop will give you a whole new understanding of the metric system. You will love the Metric System after you leave this session!

12:30 - 1:15 Oak B
T1105, 45-minute session K - 12
Mathematics Achievement and Innovation fostered through Arts Education
Peter Eley and Sorys Cepeda, Fayetteville State University
We explore the links between arts education, mathematics achievement, innovation and standardized testing. The results make force you to think differently.

Program Details for Thursday, November 2, 2017

- | | | | | | |
|---|--|---|--|--|--|
| <p>12:30 - 1:15
T1107, 45-minute session
Addressing Culture and Diversity in 6-12 Mathematics Classrooms: Strategies, Activities & Lessons from Cultures across the World
Ana Posada and Joan Ray, Winston-Salem Forsyth County Schools
<i>Let's engage in culturally situated examples, each linked to CCSS to show how mathematics can be so much more than a word problem or an exercise in a worksheet with little or no context. Enhance instruction by teaching and assessing mathematics in ways that respect diversity and extend the understanding to a personal context.</i></p> | <p>Cedar B
6 - 12</p> | <p>12:30-1:15
T1121, 45-minute session
The 100 Chart- Your NEW BFF!
Janelle Chisholm, No Teacher Left Behind Professional Development
<i>Come and use the 100 chart to add and subtract with and without regrouping. Your students will thank you!</i></p> | <p>Auditorium 2
PreK - 2</p> | <p>12:30-2:00
T2033, 90-minute session
Association of Mathematics Teacher Educators (AMTE-NC)
Temple Walkowiak, President of AMTE-NC
<i>AMTE provides the opportunity for mathematics teacher educators and mathematics teacher leaders from across the state to come together to share ideas.</i></p> | <p>Turnberry College</p> |
| Workshops 12:30 PM | | | | | |
| <p>12:30 - 1:15
T1109, 45-minute session
The Quantile Framework for Mathematics, Math Differentiation at your Fingertips!
Jane Scott, MetaMetrics
<i>Understand The Quantile Framework for Mathematics, what the data point means for students and how where to find free resources.</i></p> | <p>Oak A
K - 12</p> | <p>12:30-1:15
T1123, 45-minute session
Eye-opening Advice About College Math Readiness with NO STRINGS ATTACHED!
Elen Hilgoe, East Carolina University
<i>NC Early Mathematics Placement Testing provides a practice math placement test similar to those used at NC community colleges and UNC universities for college math placement. Free materials + free advice + individualized results + time to fix weak math skills = avoidance of remedial math at the college level!</i></p> | <p>Biltmore A
9 - 12</p> | <p>12:30 - 1:00
T3063, 90-minute workshop
College and Career Readiness –What do the Colleges/Employers expect Quantitatively?
Ereka Williams and Sharita Lawson, North Carolina A&T State University and Joy Martin, Guilford County Schools
<i>This session will introduce participants to a National Learner-Centered framework called the Degree Qualifications Profile (DQP). This framework concretely addresses what a degree-holder should know and perform at the associate, bachelor and master degree levels. All classroom teachers share responsibility as it relates to looking at the end game of their efforts with learners. Come and explore these outcomes that truly benchmark college and career readiness.</i></p> | <p>Morehead College
9 - 12</p> |
| <p>12:30 - 1:15
T1111, 45-minute session
Navigating through Kindergarten Number Talks
Hannah Smith and Dawne Coker, Cumberland County Schools
<i>Take a journey through the successes and struggles of kindergarten number talks. Receive tips, tools, and resources for implementing number talks in your classroom</i></p> | <p>Auditorium 1
PreK - 2</p> | <p>12:30-1:15
T1125, 45-minute session
Creating Mathematicitizens: Piecewise-Defined Functions and Tax Policy
Forrest Hinton, North Carolina School of Science and Mathematics
<i>Come explore two precalculus activities that show students how piecewise-defined functions and their graphs help citizens and policymakers analyze our nation's tax policies.</i></p> | <p>Pinehurst
9 - 12</p> | <p>12:30 - 2:00
T3065, 90-minute workshop
Understanding Area Through Folds and Dots
Katherine Foxx, Kathleen Fick, Ondrea Noddin, and Tracy Gilbert, Methodist University
<i>Explore the spatial concept of area through folding and dot paper arriving at a formula for any polygon. Problem solving guaranteed. Handouts provided.</i></p> | <p>Imperial C
6 - 8</p> |
| <p>12:30 - 1:15
T1113, 45-minute session
10 Days to Multiplication Mastery
Rich Stuart, Learning Wrap-ups, Inc.
<i>Teach your students Multiplication Facts in 10 Days by emphasizing the power of Commutative Properties along with fun methods of practice.</i></p> | <p>Arrowhead
3 - 5</p> | <p>12:30 - 2:00
T2025, 90-minute session
PRACTICES THAT MAKE YOU A BETTER TEACHER TOMORROW!
Brittney Dennis, Elementary Teacher and Erica Wright, 4th Grade Guilford County Planning Resources, Interactive Center Ideas, Number Talks, Data Notebooks and More!</p> | <p>Augusta B
3 - 5</p> | <p>12:30 - 2:00
T3067, 90-minute workshop
Using Technology in a Math Classroom
Christy Bentley, Hickory Ridge High School
<i>I will model how to use Pear Deck, Quizizz, Google Quiz, and Quizlet Live in a Math Classroom to increase student engagement. Teachers will be able to use formative data or assessments to drive their instruction. They will be able to take away a great resource to use in their classroom</i></p> | <p>Guilford A
9 - 12</p> |
| <p>12:30 - 1:15
T1115, 45-minute session
No More Boring Study Guides
Amanda Thompson, Westerly Hills Academy and Melanie Baker, Charlotte-Mecklenburg Schools
<i>Aren't you tired of wasting papers that many of your students may loose? Why not have your students produce a digital product that can be shared with their peers and will cover all of your standards by using a rubric.</i></p> | <p>Oak C
6 - 12</p> | <p>12:30 - 2:00
T2027, 90-minute session
Differentiating Assessment with One Test
John Pritchett, Athens Drive Magnet HS
<i>Develop and grade any assessment with accommodations for various learners.</i></p> | <p>Augusta A
9 - 12</p> | <p>12:30 - 2:00
T3069, 90-minute workshop
Begin to code with your students!
Rebecca Caison, Retired Teacher
<i>Are you interested in having your students begin coding? Come learn the basics of coding on the TI-84 and code a short program appropriate for your grade level. Resources for additional coding exercises will be shared.</i></p> | <p>Imperial F
6 - 12</p> |
| <p>12:30 - 1:15
T1117, 45-minute session
MATHCOUNTS
Marc Worth and David Phipps, MATHCOUNTS
<i>MATHCOUNTS - For students that love math and for students that fear math. MATHCOUNTS has three different programs to reach all students: Competition, School, Video.</i></p> | <p>Cedar C
6 - 8</p> | <p>12:30 - 2:00
T2029, 90-minute session
Make Learning Stick Based on Cognitive Science
Anna Vance, Mt. Tabor High School
<i>Why don't students remember what I teach? Find out here and learn classroom-tested strategies to promote long-term retention based on "Make it Stick".</i></p> | <p>Colony C
K - 12</p> | <p>12:30 - 2:00
T3071, 90-minute workshop
The Ice Cream Stand
Amber Colley Thomas, North Carolina Council on Economic Education
<i>Who doesn't love a good ice cream stand? Learn all about supply and demand, price and competition while running your own ice cream stand!</i></p> | <p>Tidewater
6 - 8</p> |
| <p>12:30 - 1:15
T1119, 45-minute session
Giving Students HOPE
Felecia Young, Rowan Salisbury Schools
<i>This session will provide participants with strategies and tools to use to provide students with HOPE (Having Opportunities to Pursue Excellence).</i></p> | <p>Cedar A
PreK - 5</p> | <p>12:30 - 2:00
T2031, 90-minute session
Everyday I'm Calculating: Bridging the Gap of Academic Equity and Strategies to Motivate Struggling Math Learners
Adrienne Wynn, Phillip O Berry Academy of Technology & UNC Charlotte/Urban Educators for Change
<i>This workshop critically analyzes issues of academic equity in urban schools, and provide strategies to motivate struggling math learners through the use provocative discussions/activities.</i></p> | <p>Imperial B
9 - 12</p> | | |

Program Details for Thursday, November 2, 2017

12:30 - 2:00 T3073, 90-minute workshop Write On! Implementing Mathematical Writing Madelyn Colonnese , <i>University of North Carolina at Charlotte</i> <i>Are you interested in engaging your students in mathematical writing? Partake in hands-on activities and discussions to identify practical ways to implement and support students with mathematical writing.</i>	Imperial G PreK - 5	12:30-2:00 T3089, 90-minute workshop Use Cubes as a Setting for Your Problem Solving Dennis Mulhearn , <i>Valley Stream South High School (39 years) retired</i> <i>A cube is a starting point for rich problems with multiple solutions. Find factors, volume, surface area, networks, and more involved in these contest problems.</i>	Imperial H 3 - 5	1:30 - 2:15 T1129, 45-minute session Launching Number Talks Leigh Belford , <i>East Carolina University</i> <i>Designed for both newbies and those with some experience, we will explore the benefits of Number Talks: strategies for launching them as a daily math routine and ways to overcome common hiccups in implementation.</i>	Cedar A PreK - 5
12:30 - 2:00 T3075, 90-minute workshop Solve This! Unlock Problem Solving in K-2 Danielle Long , <i>Union County Public Schools</i> <i>Problem solving is essential! Let's work to unlock some mysteries of problem solving in our foundational grades...and it DOESNT include key words!</i>	Imperial A PreK - 2	12:30-2:00 T3091, 90-minute workshop Student Centered Instruction: Less of Me, More of Them Chad Broome , <i>Union County Public Schools</i> <i>Focusing your instruction on students requires strategic planning for engagement. In this session, participants will learn effective strategies that are easy to implement in classrooms.</i>	Imperial E 6-12	1:30 - 2:15 T1131, 45-minute session Did I Really Miss Global Math Week? Nathan Borchelt and Sloan Despeaux , <i>Western Carolina University</i> <i>Members of Math Teachers' Circles share how they participated in local Global Math Week events and what others can do to get involved.</i>	Cedar B K - 12
12:30 - 2:00 T3077, 90-minute workshop Fractions: Less is More Laura Marvin and Dorothy Dalton , <i>Oakwood Elementary School</i> <i>Discover how gaining insight of students' misunderstandings and misconceptions can drive your instruction through less work with rich conceptual tasks.</i>	Sandpiper 3 - 5	12:30 - 2:00 T3092, 90-minute workshop Teacher and Student: Graphs of the Derivative Adam Pennell , <i>Greensboro College</i> <i>Discover the relationship between a graph and its derivative. Interact with the lesson as a student and a teacher using exploration and formative assessment.</i>	Colony A 9 - 12	1:30 - 2:15 T1133, 45-minute session Middle School Math Work Stations: We've Got It Going On! Kelly DeLong , <i>Richmond County Schools</i> ; Roxi Anderson , <i>Elerbe Middle School</i> and Beth Gentry , <i>Hamlet Middle School</i> <i>Join us as we show you our implementation of math work stations for grades 6-8. We will share our resources and give you fabulous ideas on how to get started. Come curious! Leave inspired!</i>	Auditorium 4 6 - 8
12:30 - 2:00 T3079, 90-minute workshop Marvels of Number Theory Eric O'Brien , <i>Math Olympiads (MOEMS)</i> <i>Beginning with the Break the Code Game, encourage your students on a journey through the marvels of Number Theory.</i>	Meadowbrook 6 - 12	Keynotes 1:30 PM		1:30 - 2:15 T1135, 45-minute session Using Read-Alouds in the Math Classroom Lesley Holley , <i>Martin County Schools</i> <i>Spruce up your math lesson with an exciting read-aloud! Participants will walk away with engaging activity ideas and handouts for using literature to teach mathematics.</i>	Cedar C 3 - 5
12:30 - 2:00 T3081, 90-minute workshop Tiles and Tessellations Blain Patterson , <i>North Carolina State University</i> and Sarah Ritchey , <i>Duke University</i> <i>What do M.C Escher, honeybees, and kitchen floors have in common? Explore the mathematics of tiles and tessellations and take away engaging classroom activities.</i>	Colony B 6 - 12	1:30-3:00 T4011, 90-minute session Overview of the Illustrative Mathematics Middle School Curriculum William McCallum , <i>Illustrative Mathematics</i> <i>Illustrative Mathematics has written an openly licensed curriculum for grades 6-8. We will give an overview of the curriculum, its philosophy, and what has been changed in response to feedback from the pilot districts. The audience will have a chance to engage in some of the activities in the curriculum in small groups at their tables.</i>	Guilford C 6-8	1:30 - 2:15 T1137, 45-minute session Closing the Gaps Cydney Kramer and Emily Elliott , <i>Heart Math Tutoring</i> <i>What are the trends in Charlotte-Mecklenburg Schools math scores? What type of math instruction is most helpful for children who enter school behind? Learn how a Charlotte-based nonprofit is tackling the challenge with hands on activities and games.</i>	Oak C 3 - 5
12:30 - 2:00 T3083, 90-minute workshop Using Algebra Tiles from Polynomials to Factoring Tim Scripko , <i>Retired Teacher Southern York County, PA</i> <i>Teachers will learn how to use the tiles from the concrete to the abstract using the Algebra Tiles</i>	Pebble Beach 9 - 12	1:30-3:00 T4013, 90-minute session Differentiation: It's More than Just Changing the Numbers Karen Economopolous , <i>Investigations Center for Curriculum and Professional Development at TERC</i> <i>This session focuses on strategies for differentiating classroom activities to meet the range of learners. Participants will be introduced to a structure for thinking about differentiation and a set of strategies that can be used to adjust the teaching and learning environment in order to support and extend the thinking of all students</i>	Imperial D K-5	1:30 - 2:15 T1139, 45-minute session Fostering Student Growth through Differentiation Brooke McCurdy and Michelle Beck , <i>CCTL Early College/Iredell-Statesville Schools</i> <i>Strategies and techniques for differentiation and personalized learning will be shared. Attendees will leave with examples to use in their own math classrooms.</i>	Biltmore B 6 - 12
12:30 - 2:00 T3085, 90-minute workshop Math behind the Market Sandy Wheat , <i>NCCEE</i> <i>Math Behind the Market developed by McGraw-Hill, builds math skills while engaging in real world, fun applications with the Stock Market Game. Attend to receive free access.</i>	Tanglewood 3 - 5	Sessions 1:30 PM		1:30 - 2:15 T1141, 45-minute session Student Guided & Self-Correcting Math Centers Rich Stuart , <i>Learning Wrap-ups, Inc.</i> <i>Learn about, play with and keep Math Center materials that are Student Guided, Hands-on, and Self Correcting.</i>	Arrowhead PreK - 2
12:30 - 2:00 T3087, 90-minute workshop Meeting Environmental Challenges with Math David Wiley , <i>Appalachian State University</i> <i>Integrate math and science with hands-on activities that build skills in measurement, data analysis, numbers and operations while broadening environmental awareness.</i>	Blandwood 6 - 8	1:30 - 2:15 T1127, 45-minute session HS NC DPI Updates Session Lisa Ashe and Joseph Reaper , <i>NC DPI</i> <i>This session will focus on updates in HS mathematics. NC DPI consultants will share implementation progress for Year 2 of the HS math standard course of study, the revised resources and opportunities for collaboration.</i>	Auditorium 3 9-12		

Program Details for Thursday, November 2, 2017

<p>1:30 - 2:15 T1143, 45-minute session Keepin' it Fresh! Spiraling Curriculum & Reviewing for Exams Chase Tuttle, North Iredell Agriculture & Science Early College <i>Intentional spiraling keeps concepts fresh for students. Learn strategies for planning spiral & using games to review for exams. These were the best review days I've ever had! Take home materials to help for review!</i></p>	<p>Biltmore A 9 - 12</p>	<p>2:30 - 3:15 T1151, 45-minute session Connecting Strategies Creates Ownership & Community Trish Connor, LearnZillion and Stefanie Bordeaux, New Hope Elementary <i>Discussing and connecting students' solution methods helps students see how their mathematical contributions are valued. Learn strategies for helping students "own" their thinking while understanding connections with others'.</i></p>	<p>Cedar B PreK - 5</p>	<p>2:30-3:15 T1165, 45-minute session Social Networks and Graph Theory Holly Hirst, Appalachian State University <i>Studying social networks has renewed interest in basic graph theory. An overview of necessary graph concepts, examples, and free graph analysis software will be highlighted.</i></p>	<p>Cedar A 9 - 12</p>
<p>1:30 - 2:15 T1145, 45-minute session JUSTIF-why? Barbara Woodcock and Renee Gibbs, Rockingham County Schools <i>Mathematically proficient students are expected to justify and reason abstractly and quantitatively. Learn ways to teach and assess these skills in NC Math 1-3.</i></p>	<p>Oak A 9 - 12</p>	<p>2:30 - 3:15 T1153, 45-minute session Creative Formative Assessment Leah McCoy, Wake Forest University <i>Discover methods for designing creative and effective formative assessment. Learn how to use data to build and support a growth mindset. Student projects included.</i></p>	<p>Biltmore B K - 12</p>	<p>2:30-3:15 T1167, 45-minute session High School Sequence Options - Share Your Ideas! Katie Mawhinney <i>The NC Collaborative for Mathematics Learning and Appalachian State University</i></p>	<p>Oak A College</p>
<p>1:30 - 2:15 T1147, 45-minute session Teaching Traditional Math in the Philippines Rosario Zapata, Wallace-Rose Hill High School <i>Show education culture, condition and set-up in the Philippines and Teaching Trigonometry without the aid of calculator.</i></p>	<p>Pinehurst K - 12</p>	<p>2:30 - 3:15 T1155, 45-minute session In Praise of Eratosthenes Eric O'Brien, Math Olympiads (MOEMS) <i>Classify Numbers as Prime Numbers, Composite Numbers or Building Blocks</i></p>	<p>Meadowbrook 3 - 5</p>	<p>2:30 - 3:15 T1068, 45-minute session Making Use of Structure Andrea Hollifield and Jessica Vernon, Buncombe County Schools <i>Come experience number talks as a method for reinforcing the use of structure in mathematical concepts like solving equations.</i></p>	<p>Colony C 6 - 12</p>
<p>1:30-2:15 T1148, 45 minute session Building Percent Concepts Using Percent Bars and Ratio Boxes Christine Blystad, Durham Public Schools and Robin Barbour, Math Consultant <i>We will explore a percent progression and the role of ratio reasoning using percent bar models and ratio boxes. Participants will work with tasks to introduce percents, work with benchmark percents, and solve problems including percent increase and decrease.</i></p>	<p>Oak B 6 - 8</p>	<p>2:30 - 3:15 T1157, 45-minute session Addressing Culture and Diversity in K-2 Mathematics Classrooms: Strategies, Activities & Lessons from Cultures across the World Kimberly Wesley and Adrienne Egerton, Winston-Salem Fosyth County Schools <i>Participants will discover research-based strategies and rich mathematical tasks that address diversity and various cultures. Implementing these strategies will help learners become confident mathematicians with a growth mindset.</i></p>	<p>Auditorium 4 K-2</p>	<p>2:30-4:00 T2037, 90-minute session It's a M.A.D., M.A.D., M.A.D. World!! Lisa Ashe and Joseph Reaper, NCDPI <i>The world around us is full of data. Deep understanding of statistical thinking begins in middle school and continues through HS. Participants will take a deep dive into the 6th-7th grade progression of MS statistics and how it supports HS level statistics and beyond. This session will examine conceptual understanding of the mean as a measure of center and how the mean absolute deviation as a measure of variability supports statistical understanding of quantitative data beyond calculation of summary statistics and its role in the development of statistical thinking in adolescents.</i></p>	<p>Auditorium 3 6-8</p>
<p>1:30 - 3:00 T2035, 90-minute session Increase Depth of Knowledge Using Math Songs LaMar Queen, Locke HS <i>Hip hop has become the world's most influential culture and music speaks to everyone! Learn how to seamlessly incorporate educational hip hop into your curriculum and create a positive identity for your students.</i></p>	<p>Auditorium 1 K - 12</p>	<p>2:30 - 3:15 T1159, 45-minute session Numberless Word Problems - Promoting Sense Making Daniel Wicks, Bradley Middle School and Alisan Royster, Cabarrus County <i>Remove numbers to reduce obstacles. Word problems and comprehension get in the way of letting students show what they know because of the numbers.</i></p>	<p>Oak B 6 - 8</p>	<p>2:30 - 4:00 T2039, 90-minute session Math Digital Escape Rooms Kayla Chandler, Greene Central High School; Heather Davis and Maggie Nesbitt, Greene Early College High School <i>Experience a digital escape room math style while you work together to find clues, solve puzzles, and have fun! Handouts and Google folder will be shared.</i></p>	<p>Biltmore A 9 - 12</p>
<p>Workshop 1:30 PM 1:30-3:00 T3093, 90-minute workshop Snatch It Match It Karen Collins, West Johnston High School <i>Learn to use activities and technology to assess students' knowledge; simple activities & activity concepts that can be used multiple times in multiple ways.</i></p>	<p>Auditorium 2 6 - 12</p>	<p>2:30 - 3:25 T1161, 45-minute session What's the Math Question? Teresa Morton, Stanly County Schools <i>This session focuses on how effective questioning is used to engage students in mathematical discourse and how teachers can use student responses to adjust instruction.</i></p>	<p>Cedar C 6 - 12</p>	<p>2:30 - 4:00 T2041, 90-minute session Kinesthetic Strategies via Training Symposiums Suzy Koontz, Learn Thru Movement/Math & Movement <i>Learn an innovative PD model that combines teacher training, time for teachers to practice their new techniques with students, and a family math night.</i></p>	<p>Augusta B K - 12</p>
<p>Sessions 2:30 PM 2:30 - 3:15 T1149, 45-minute session Lessons from Interdisciplinary Co-planning Michelle Cetner and Allison McCulloch, NC State University <i>This session discusses how teachers overcome discomfort with other subjects by co-planning interdisciplinary lessons together, leading to more student-centered lessons in the classroom</i></p>	<p>Oak C 6 - 12</p>	<p>2:30-3:15 T1163, 45-minute session Incentivizing Learning Encouraging the Struggle in Curriculum & Instruction Connor Gray, Imagine Learning <i>Students need purpose and relevance when learning. Learn how integrating unique intrinsic and extrinsic motivators into the classroom, gamified instruction, and unique layers of support, students will demonstrate greater success. Imagine Math brings rigorous, adaptive, gamified instruction to the classroom allowing students to donate over \$300,000 to charity and provides over 70 hours of virtual, on demand, live, certified bi-lingual, teacher support!</i></p>	<p>Augusta A K - 12</p>	<p>2:30 - 4:00 T2043, 90-minute session Exploring Statistics and Probability Jayne Slease, South Brunswick Middle School and Karen Walker, Shallotte Middle School <i>How can we help students conceptualize statistical terms? How can we help them understand and interpret different ways to represent data? Come explore with us!</i></p>	<p>Turnberry 6 - 8</p>

Program Details for Thursday, November 2, 2017

2:30 - 4:00 T2045, 90-minute session Classroom Misbehavior is not a Positive Identity Peter Vajda, Center for Teacher Effectiveness <i>Learn "8:00 Monday morning" research-based strategies of a fair and simple classroom management system that will eliminate unwanted behaviors by 70% or more.</i>	Arrowhead K - 12	2:30 - 4:00 T3103, 90-minute workshop Learning to Code Using the TI-Innovator Hub Adam Pennell, Greensboro College <i>This is an introduction to coding. Participants will get to experience the fun of learning to code using a TI-84/TI-Nspire to control the TI-Innovator Hub.</i>	Sandpiper 9 - 12	2:30 - 4:00 T3119, 90-minute workshop Kick Start Math With Vocabulary Instruction! Lisa Suther Johnson and Katherine Klynstra, E.E. Miller/Cumberland County Schools <i>Are you looking for exciting new ways to teach vocabulary in your math lesson? Learn about Marzano's six-step process for teaching new words.</i>	Imperial H PreK - 5
2:30-4:00 T2047, 90-minute session Connecting Representations to the Actions of the Operations Marta Garcia, Math Consultant and Kaneka Turner, Math Consultant <i>Come join us in analyzing how students develop strategies for capturing the actions of the four operations! We will work on math tasks, examine student work and discuss how students use various types of representations to illuminate the structure of the operations.</i>	Pinehurst PreK - 5	2:30 - 4:00 T3105, 90-minute workshop Solidify Understanding of Fractions Ryan Dougherty, ETA hand2mind <i>Using only a few manipulatives in the correct way, you can help your student have a deeper understanding of fractions. Problem-solve and use these manipulatives during this hands on session.</i>	Colony B 3 - 5	2:30 - 4:00 T3121, 90-minute workshop Problem Solving Speaks Heather Thomas, National Training Network <i>This workshop will look at how a problem solving strategy and hands on math can be used to promote mathematical discourse in the classroom.</i>	Imperial C 3 - 5
2:30 - 4:00 T2049, 90 minute session Marketplace Shana Runge, Mary Beth Dailey, & Ray Jernigan, NCCTM <i>Pre-service teachers and classroom teachers with less than three years of experience may purchase current materials at bargain prices.</i>	Heritage A/B K-12	2:30 - 4:00 T3107, 90-minute workshop ESL and Math: Talking the Language Anna Jackson and Steve West, Wake County Public Schools <i>Facilitating purposeful math talk is a challenge for many teachers. Join us as we explore strategies to support our classroom teachers scaffold mathematics discourse for English Language Learners.</i>	Imperial A 6 - 12	2:30 - 4:00 T3123, 90-minute workshop Math Behind the Market for Middle School Math Teachers Sandy Wheat, NCCEE <i>Math Behind the Market developed by McGraw-Hill, builds math skills while engaging in real world, fun applications with the Stock Market Game. Attend to receive free access.</i>	Tanglewood 6 - 8
2:30 - 4:00 T3109, 90-minute workshop The Amazing Race Charles Johnson, Shari Brockington, and Katasha Oxendine, Red Springs High School <i>Enhance, Engage, and Empower through Collaborative Competition!!!!</i>	Imperial B 6 - 12	2:30 - 4:00 T3111, 90-minute workshop Flip it! Jodi Pearson, East Wake Academy and Christina Wilson, Roxboro Community School <i>Flipping has transformed by classroom! Join me for how I flipped and activities I use to engage my students. No worksheets allowed!</i>	Imperial B 6 - 12	2:30 - 4:00 T3125, 90-minute workshop Student-Centered Learning Joanne Whitley, Walch Education and Marjan Hong, Discovery Education <i>Come experience an inquiry-based classroom, and see examples of teacher moves and classroom activities that will make your students the center of attention.</i>	Imperial F 9 - 12
2:30 - 4:00 T3095, 90-minute workshop Rolling Into Fact Fluency - Primary Math Games Stephanie Bainbridge, Box Cars and One-Eyed Jacks <i>Who knew regular dice could be used to teach so many operational fluency strategies and concepts. Come prepared to play our favorite and new games that teach basic + and -. Gameboards provided, ideas for differentiation and more!</i>	Guilford A PreK - 2	2:30 - 4:00 T3113, 90-minute workshop How does it grow...or does it Tim Scripko, Southern York County School District <i>Teachers will leave this session with lessons they can use in their classrooms for the topic of Exponential Functions and Geometric Sequences.</i>	Colony A 6 - 8	Sessions 3:30 PM 3:30 - 4:15 T1169, 45-minute session Daring Data and Cautious Calendars Cerah Churchwright, Meredith College <i>We explore calendar time's efficacy in developing number sense and how to use it to increase students' math-to-self connections via science integration.</i>	Auditorium 2 PreK - 2
2:30 - 4:00 T3097, 90-minute workshop Number Talks at the High School Level Britney Clubb, Owen High School Buncombe County <i>Number/Pattern talks have changed the culture of my classroom and can change yours too. Come experience a number talk and get HS level resources.</i>	Morehead 9 - 12	2:30 - 4:00 T3115, 90-minute workshop Building a Math Identity through Fractions Joel Sellers and Marlene Creary, Junaluska Elementary School <i>Making sense of fractions and analyzing why they are such a challenge for students and teachers.</i>	Pebble Beach 9 - 12	3:30 - 4:15 T1171, 45-minute session Estimating with Fractions Kathleen Fick, Tracy Gilbert, Ondrea Noddin, and Katherine Foxx, Methodist University <i>Review and investigate the knowledge and skills necessary to estimate sums and differences of fractions, compare fractions, and explore techniques to help untangle common misconceptions.</i>	Cedar A 3 - 5
2:30 - 4:00 T3099, 90-minute workshop Stretching Rubber Bands: Dilations Thomas Coleman, Greensboro College <i>We will engage in a task meant to deepen our own understandings of geometric dilations. This low bar, high ceiling task is incredibly engaging and easily adapted into your classroom.</i>	Blandwood 6 - 12	2:30 - 4:00 T3117, 90-minute workshop Experience the Math Margret Stiles, Haywood Early College <i>Come see how math class can be a lab based class. Participants will use experiments to "see" the math before they formally solve the math. The participants will come away with math 1 and math 2 activities that they can use.</i>	Imperial E 3 - 5	3:30 - 4:15 T1173, 45-minute session Check Your Attitude at the Door Deb Butler, Currituck County Public Schools <i>Students with a checkered mathematical past can develop a positive mathematical identity with a positive approach and attitude. Every day is another opportunity to excel.</i>	Imperial D 9 - 12
2:30 - 4:00 T3101, 90-minute workshop What's My Interest? Amber Colley Thomas, North Carolina Council on Economic Education <i>How many jelly beans have you earned? Learn all about the importance of saving and the power of interest!</i>	Tidewater 3 - 5	2:30 - 4:00 T3119, 90-minute workshop Kick Start Math With Vocabulary Instruction! Lisa Suther Johnson and Katherine Klynstra, E.E. Miller/Cumberland County Schools <i>Are you looking for exciting new ways to teach vocabulary in your math lesson? Learn about Marzano's six-step process for teaching new words.</i>	Imperial G 9 - 12	3:30 - 4:15 T1175, 45-minute session Distributive Property: Your New BFF! Janelle Chisholm, No Teacher Left Behind Professional Development <i>Come and see how to apply the distributive property to help students learn their multiplication facts! It rocks!</i>	Auditorium 1 3 - 5

Program Details for Thursday, November 2, 2017

<p>3:30 - 4:15 T1177, 45-minute session Middle School Math I and Math II – Engaging and Growth Activities Elizabeth Mebane and Allison Nino, <i>Eastern Guilford Middle School</i> <i>Need something now? Come to this session and walk away with activities you use tomorrow in your middle school classroom.</i></p>	<p>Oak C 6 - 8</p>	<p>3:30 - 4:15 T1185, 45-minute session Fostering a Collaborative Statewide Math Community Jared Webb, <i>UNC - Greensboro</i>; Allison McCulloch, <i>UNC - Charlotte</i>; Paul Wonsavage, <i>UNC - Greensboro</i>; Emily Bryant, <i>UNC - Greensboro</i> <i>Come hear exciting updates from the North Carolina Collaborative for Mathematics Learning. In this session, we highlight and elicit feedback on co-designed resources supporting mathematics learning across NC.</i></p>	<p>Cedar C K - 12</p>	<p>3:30-4:15 T1191, 45-minute session Auditorium 4 9 - 12 The 2017 AP Calculus Exam Ken Collins, <i>Charlotte Latin School</i> <i>We will discuss the problems, solutions, and how to prepare for the 2018 exam.</i></p>
<p>3:30 - 4:15 T1179, 45-minute session Flip, Twist, Spin your Math Class Ivey Powell and Sherill Bateman, <i>Nash-Rocky Mount Public Schools</i> <i>Frustrated because you don't know what web tools to use for instruction? This session will clear the path for you to use them!</i></p>	<p>Meadowbrook 6 - 12</p>	<p>3:30 - 4:15 T1187, 45-minute session Statistical Inquiry in the Mathematics Classroom Travis Weiland, <i>Appalachian State University</i> <i>In this session we will explore how statistics concepts and practices from the CCSSM can be taught through statistical investigations in the mathematics classroom.</i></p>	<p>Cedar B 6 - 12</p>	<p>3:30-4:15 T1193, 45-minute session Colony C 6 - 12 Civil Air Patrol STEM Activities for Modeling and Design Chris Gordon, <i>UNC Wilmington</i> and Alisa Wickliff, <i>UNCC</i> <i>Explore Civil Air Patrol (CAP) activities including hands on activities, STEM kits (including robotic arms, quadcopters, and remote control aircraft), and extensive resources to teach aerospace education and modeling. Hands on activities and door prizes while you learn how to get involved with CAP today.</i></p>
<p>3:30 - 4:15 T1181, 45-minute session MVT, Taylor Error, and the Not-so-elusive 'c' Philip Rash, <i>NC School of Science & Math</i> <i>How are the Mean Value Theorem and Taylor polynomial/ "Lagrange" error related? Also, the "unknown c" in Taylor error may not be all that mysterious!</i></p>	<p>Biltmore B College</p>	<p>3:30 - 4:15 T1189, 45-minute session Oak A PreK - 5 Dynamic Interactive Word Walls Stacey Wilson, Melissa Fox, and Kelly Reigle, <i>Union County Public Schools</i> <i>Participants will realize the impact interactive word walls can have on student learning throughout a unit of study and how making learning visible highlights connections within a topic.</i></p>	<p>3:30-4:15 T1195, 45-minute session Augusta A 3 - 5 Model (Don't Memorize) Multiplication and Division Dan Harris, <i>Brainingcamp</i> <i>It's neither fair nor effective to have students memorize without knowing why things work. Manipulatives help model algorithms for multiplying and dividing fractions and integers.</i></p>	
<p>3:30 - 4:15 T1183, 45-minute session Oak B K - 12 I'm a new teacher...now what? Ginean Royal, <i>Equipped Educator / Educational Consultant</i> <i>Need extra support as a new teacher? Do you have specific questions and need guidance? I am here to assist you.</i></p>				

Program Details for Friday, November 3, 2017

Keynote

8:30 AM

8:30-10:00 **Imperial A**
F4001, 90-minute workshop **9-12**

Doing Mathematics! Engaging Students Using the Effective Teaching Practices
Joleigh Honey, Mathematics Vision Project

Join us during this session where we will engage in a math task, then discuss mathematics content goals and pedagogical connections. This session is interactive so come prepared to think, communicate, become even more passionate about math education, and have fun!

Sessions

8:30 AM

8:30 - 9:15 **Cedar A**
F1001, 45-minute session **6 - 12**

Using Technology and Adaptive Assessment for a Fully Differentiated Math Classroom

Joseph Adelman, Global Scholars Academy
All students working at their own level! All students engaged in their learning!

8:30 - 9:15 **Imperial D**
F1003, 45-minute session **6 - 8**

Making Sense of Percent
Janelle Chisholm, No Teacher Left Behind Professional Development

Come and see how to easily find the percent of number, a percent increase or decrease. This strategy is LIFE-CHANGING!

8:30 - 9:15 **Auditorium 1**
F1005, 45-minute session **3 - 5**

Amplify Fractions
Drew Corley and Lauren Whitley, Amplify Education, Inc.

Adaptive and personalized learning meets great story telling! Come see how we're solving the fraction knowledge gap with our digital program for students and teachers.

8:30 - 9:15 **Oak A**
F1007, 45-minute session **9 - 12**

Bridging the Math 1 Gap
Lynn DeRosia and Mikaela Edge, Croatian High School

Come discuss, watch, and learn about our newly implemented approach to reaching the lowest level Math 1 students.

8:30 - 9:15 **Auditorium 4**
F1009, 45-minute session **9 - 12**

Learning from our Colleagues— Observe Me!

Arren Duggan and Megan Martin, UNC-Greensboro

In this session, we share experiences from observing colleagues across six schools and the opportunities it created to learn from peers to enhance our instruction.

8:30 - 9:15 **Augusta A**
F1011, 45-minute session **3 - 5**

Let's Get Connected: Math & Reading
Leslie Frink, Pembroke Middle School

Come learn about integrating literacy skills into mathematics instruction. We will focus on predicting, inferring, comparing, contrasting, and recognizing cause and effect relationships within mathematics.

8:30 - 9:15 **Auditorium 2**
F1013, 45-minute session **PreK - 2**

Subitizing in the K-2 Classroom

Maryam Khan, North Carolina State University

Are your students subitizing? Subitizing is an important skill to help students with counting. Teachers will be given resources to implement in their mathematics instruction.

8:30 - 9:15 **Cedar C**
F1015, 45-minute session **6 - 8**

Literacy Strategies to Help Develop Meaning in the Math Classroom

Shanta Kilgore and Denise Johnson, Winston-Salem State University

Are students in your Math class having a hard time reading and understanding math problems? In this session, gain insightful tools and tips to make reading in the Math class meaningful through visual and content literacy strategies.

8:30 - 9:15 **Cedar B**
F1017, 45-minute session **K - 12**

Promoting Equitable Access to Ambitions Instruction

Becca Kimble and Jonee Wilson, North Carolina State University

Interact with a set of practices that have been developed with the intention of promoting access to mathematical practices for students from historically marginalized backgrounds.

8:30 - 9:15 **Oak C**
F1019, 45-minute session **9 - 12**

I didn't know my calculator could do that!

Michael Mashburn, South College Asheville Learning Site

We will explore functions of the TI-84 calculator and programs that I have written.

8:30 - 9:15 **Colony C**
F1021, 45-minute session **K - 12**

EVAAS: Insightful Uses for Classroom Teachers

Kirstin Morrison, SAS EVAAS

Classroom teachers will explore specific EVAAS reports that can inform many aspects of their teaching craft, including differentiated student support, personal professional development, leadership opportunities, and more.

8:30 - 9:15 **Oak B**
F1023, 45-minute session **6 - 12**

Using Technology to Enhance Mathematics

Thom Obrien, ExploreLearning

As technology becomes more and more of a factor in the classroom, how do we maximize our device usage?

8:30 - 9:15 **Biltmore A**
F1025, 45-minute session **College**

Intentionally Removing Technology from the College Classroom

Lisa Rosenberg, Elon University

We will examine why our department decided to remove technology from our introductory statistics and calculus courses. We will also examine the impact of this change.

8:30 - 10:00 **Auditorium 3**
F2001, 90-minute session **K-5**

K-5 NC DPI Updates Session

Denise Schulz, NCDPI

This session will focus on updates in K-5 mathematics. NC DPI consultants will share the major changes of the revised K-5 math standards, resource development and the implementation plan for the 2017-18 school year.

8:30 - 10:00 **Guilford A**
F2003, 90-minute session **3 - 5**

Power Play - Games for Teaching Place Value

Stephanie Bainbridge, Box Cars and One-Eyed Jacks

Games that incorporate the use of cards, dice and number lines will be taught that teach the following concepts: naming, ordering and comparing numbers, rounding, expanding, decimals and patterns.

8:30 - 10:00 **Biltmore B**
F2005, 90-minute session **9 - 12**

Standards Based Grading

Sarah Holmes, Johnston County Early College Academy

Frustrated with traditional grading? Students focused on grades more than learning? See how I incorporate SBG, learning targets, assessments, & reassessments to help students change their outlook on math.

8:30 - 10:00 **Meadowbrook**
F2007, 90-minute session **6 - 12**

Mini Session Magic: Minutes of Meaningful Morsels

Jennifer Jones, Kwaku Adu-Gyamfi, and Graduate Students, East Carolina University

Fifteen math identity-building tasks are identified and discussed via posters and handouts. Pick 5 favorites to learn more about! You'll receive valuable handouts and ideas.

8:30 - 10:00 **Tidewater**
F2009, 90-minute session **9 - 12**

Kinesthetic Strategies for Teaching Algebra

Suzy Koontz, Learn Thru Movement/Math & Movement

Are your students struggling to learn key algebraic concepts? Learn how new developments in brain science translates into faster student learning and increased comprehension!

8:30 - 10:00 **Turnberry**
F2011, 90-minute session **9 - 12**

From Probability to Statistics

Asli Mutlu, North Carolina State University

An activity which will assist students to make connections and convey the meaning from probability, to discrete probability distribution, binomial distribution and normal distribution.

8:30 - 10:00 **Arrowhead**
F2013, 90-minute session **6 - 12**

Coherence: Linking Topics: Thinking Across Grades

Todd Rackowitz, Independence High School

A round table discussion for middle and high school teachers on the importance of coherence. Discussion of some major topics and how they evolve.

Program Details for Friday, November 3, 2017

8:30 - 10:00 Pinehurst
F2015, 90-minute session **6 - 12**
Developing a Growth Mindset from Day One
Christen VanNewkirk, *Cleveland Middle School*
The success of rigorous, engaging tasks relies on a classroom environment that is positive, inviting and driven by a growth mindset. Join us as we explore Jo Boaler's Week of Inspirational Math Lessons to help start a school year off right!

8:30-10:00 Colony A
F2017, 90-minute session **PreK - 5**
Games Now! Games Pow!
Marilyn Preddy and Team Preddy, *UNCG*
A team of elementary education majors will show you how to get the most "pow" from games that align with the mathematics objectives in grades K-5.

Workshops 8:30AM

8:30 - 10:00 Imperial F
F3001, 90-minute workshop **3 - 5**
Identifying with Fractions, Decimals, and Percents in The Real World
Marlene Creary and Joel Sellers, *Junaluska Elementary School*
Using the book "Piece=Part=Portion" by Scott Guiford, we will explore how fractions, decimals, and percents represent the same quantities through real world examples.

8:30 - 10:00 Imperial E
F3003, 90-minute workshop **3 - 5**
Outstanding Math Guides (OMG) 1
Leslie Hilderbrand, *Fairplay Middle School*
Come make an OMG containing graphic organizers with steps, examples and vocabulary for every key concept taught throughout the year. A must see!

8:30 - 10:00 Imperial B
F3005, 90-minute workshop **PreK - 5**
Students Aren't Bored with the M.A.T.H. Homework Board!
Ashley Hinton and Natakai McClain, *Durham Academy*
Come discover a way to connect the math that is happening in your classroom with your students to families at home! In this session, we will discuss how the M.A.T.H. Homework Board - Math Talk, Activity, Technology, and Hands On - allows parents to discover their child as a mathematician, understand the concepts being taught, and opens up the school-home connection! This is not your typical worksheet. This board allows for student choice and innovation! Be prepared to see M.A.T.H. board examples, explore games and activities, and create M.A.T.H. boards.

8:30 - 10:00 Augusta B
F3007, 90-minute workshop **PreK - 5**
Unpacking the Math AIG IRP Lesson Plans: Making Technology Integration and Lesson Delivery Easy
Bobbie Lequire, *Durham Public Schools*
Did you know DPI has a math wiki with readymade lessons for advanced learners in grades K-8? If you do, you have discovered these plans are frameworks and you need to create additional materials to teach the lessons. Thus, I am giving you some IRP lessons I have revamped with user-friendly technology and differentiated materials to make your job easier.

8:30 - 10:00 Sandpiper
F3009, 90-minute workshop **6 - 8**
Escher, How Did You Tessellate?
Betty Long and Debbie Crocker, *Appalachian State University*
Participants will, through hands-on activities, review transformations, learn about forms of transformations used by M. C. Escher, and create their own "Escher" art tessellation.

8:30 - 10:00 Tanglewood
F3011, 90-minute workshop **6 - 12**
Creating a Self-Paced Blended Classroom
Justin Lunsford, *Hickory Career and Arts Magnet High School*
Learn the basics to creating a self-paced environment for your students. Allow students to work at their pace creating the most differentiated classroom possible.

8:30 - 10:00 Pebble Beach
F3013, 90-minute workshop **PreK - 5**
Visual Representations and the CRA Model
Tina Lupton, *Davidson County Schools*
Come engage in learning new ways to represent concepts in numbers and operations using visual strategies and a connection to the CRA model. The CRA model helps learners make connections to skills they learn to become skills they use.

8:30 - 10:00 Colony B
F3015, 90-minute workshop **K - 12**
Around the Globe in 80 Days - Global Math Classes
Chadd McGlone and Michelle Pratico, *Teachers2Teachers Global*
Math classes come alive when they connect to life around the world. Participants will learn how to make global connections in their classroom.

8:30 - 10:00 Morehead
F3017, 90-minute workshop **3 - 5**
Test-Taking Secrets
Ned McMillan, *Guilford County Schools*
This workshop will provide proven math test-taking skills that will benefit all levels of learners. These skills, most of which are unfamiliar to teachers, will be presented, then practiced hands-on.

8:30 - 10:00 Blandwood
F3019, 90-minute workshop **6 - 8**
Creating Coherence: Looking Back to Move Forward
Chris Murcko and Mary Pittman, *The New Teacher Project*
How do you support 6-8 students with using representations (tape diagrams, open number lines, area models) when your curriculum assumes students have already learned them?

8:30 - 10:00 Imperial H
F3021, 90-minute workshop **9 - 12**
Personalized Learning in the Classroom
Megan Noel, *Smithfield-Selma Senior High School*
How to truly differentiate within the classroom and increase student engagement by giving students the power to drive their own education. Device recommended.

8:30 - 10:00 Imperial C
F3023, 90-minute workshop **PreK - 2**
Powering Primary Number Sense with a Counting Rope!
Kim Sutton and Ruth Harbin Miles, *Creative Mathematics*
Learn how to construct a powerful number sense tool called a counting rope! You will leave with a suitcase full of amazing strategies and ready to inspire your students through songs, dances and meaningful math!

8:30 - 10:00 Imperial G
F3025, 90-minute workshop **9 - 12**
Math Behind the Market for High School Math Teachers
Sandy Wheat, *NCCEE*
Math Behind the Market developed by McGraw-Hill, builds math skills while engaging in real world, fun applications with the Stock Market Game. Attend to receive free access.

Keynotes 9:30 AM

9:30-11:00 Auditorium I
F4003, 90 minute session **K-12**
Opportunity, Equity & Agency: How do our grouping practices mediate student sense of mathematical identity?
Valerie Faulkner, *North Carolina State University*
Grouping students based on perceived ability has a long history in the United States. While there is a face value sense to this practice, further exploration undermines the idea of 'homogenous grouping.' In this address, we will explore both the problematic nature of identifying 'talent' and the systemic implications of that practice. We will do this through the lens of student identity and how our presumptions affect opportunity, equity and student sense of agency.

9:30-11:00 Imperial D
F4005, 90-minute session **K-5**
Developing Computational Fluency
Karen Economopolous, *Investigations Center for Curriculum and Professional Development at TERC*
What does computational fluency look like in the elementary grades? How do students develop accuracy, flexibility, and efficiency with whole number operations? We will use student work samples and video to look at fluency across the grades, and to consider how teacher practice can support the development of such fluency.

Sessions 9:30 AM

9:30 - 10:15 Auditorium 4
F1027, 45-minute session **6 - 8**
Math All Around Me
Erika Dye, *Alamance/Burlington School System*
Have you ever heard this: "When will I ever use this again?" Show students when and where they will use math concepts to make it applicable, fun, and engaging.

9:30 - 10:15 Auditorium 2
F1029, 45-minute session **PreK - 2**
The Importance of Launching Mathematical Tasks
Kelsey Griffin, *Cardinal Charter Academy/CSUSA*
Come to this session to learn how a simple five-minute discussion can engage your students while simultaneously providing an opportunity for deep conceptual understanding.

Program Details for Friday, November 3, 2017

<p>9:30 - 10:15 F1031, 45-minute session Number Talks: The WHY and the HOW. Candice Knott and Dawn Holland, <i>NC State University</i> <i>In this session, we explore why we should conduct number talks consistently and how to make them work in K-5 classrooms.</i></p>	<p>Oak C PreK - 5</p>	<p>9:30 - 10:15 F1044, 45-minute session Elementary AP? Holly Averette and Kristin Hunt, <i>Palisades Park Elementary</i> <i>Build on your understanding of vertical alignment to motivate students and offer a challenging enrichment program. Leave with examples of pacing and enrichment activities.</i></p>	<p>Cedar B 3 - 5</p>	<p>10:30 - 11:15 F1053, 45-minute session Just the Facts, Ma'am! Math Fact Fluency – Building Blocks for Conceptual Success Thom O'Brien, <i>Explorelearning</i> <i>Students with automatic recall of math facts are more capable problem solvers!</i></p>	<p>Oak B 3 - 5</p>
<p>9:30 - 10:15 F1033, 45-minute session Narratives About Doing Mathematics in Task-Based Instruction Megan Martin and Arren Duggan, <i>UNC-Greensboro</i> <i>In this session, we share our initial work in highlighting emerging narratives present in secondary mathematics teachers' classrooms when working with mathematically rich tasks.</i></p>	<p>Oak A 9 - 12</p>	<p>9:30 - 11:00 F2019, 90-minute session Oh the Places You'll Go, & the Friends You'll Meet Cindy Farmer, <i>Mount Mourne School</i> and Stacy Wozny, <i>Brawley Middle School</i> <i>Can't afford the cost of Professional Development? Growing your PLN (professional learning network) can grow your knowledge base without leaving home! We'll show you how.</i></p>	<p>Augusta A K - 12</p>	<p>10:30 - 11:15 F1055, 45-minute session How to Launch Low-Floor, High-Ceiling Tasks Brittany Rosell, <i>Cardinal Charter Academy</i> and Heidi Meyer, <i>Selma Elementary School</i> <i>Join us to explore low-floor, high-ceiling tasks. We will complete a task, analyze student work, and discuss how to implement these complex tasks.</i></p>	<p>Oak A PreK - 5</p>
<p>9:30 - 10:15 F1035, 45-minute session Lesson Study: Individualized PD for All Teachers Kim McCuiston and Keri McKenzie, <i>Brunswick County Schools</i> <i>Lesson Study is professional development that is individualized for all teachers and builds strong Professional Learning Teams. We will share insights, experiences, and lessons developed.</i></p>	<p>Cedar C K - 12</p>	<p>Keynote 10:30 AM</p>		<p>10:30 - 11:15 F1057, 45-minute session I Want to be a Math Student Yvette Shore, <i>Davie High School</i> and Joan Ray, <i>Winston-Salem Forsyth County Schools</i> <i>Participants explore Math Portfolios to help students develop and support a sense of mathematics identity.</i></p>	<p>Cedar A 9 - 12</p>
<p>9:30 - 10:15 F1037, 45-minute session Fractions – Don't be just "Vulgar" Thom O'Brien, <i>Explorelearning</i> <i>Students struggle with almost all aspects of fractions: Numerator, Denominator, Proper, Mixed, Divisor, etc. - So much to keep track of!</i></p>	<p>Oak B 3 - 5</p>	<p>10:30-12:00 F4007, 90 minute workshop Leading Learners to Level Up Jennifer Wilson, <i>SlowMath Movement</i> <i>Effective mathematics teaching begins with establishing mathematics goals to focus learning. We want students to persevere and to show their work. But what if they can't yet? When success pathways are visible, learners are empowered to reach for the next level in their learning. How might we use leveled learning progressions to empower our learners to become self-correcting, self-reliant, and independent? Let's explore how we can provide #SlowMath opportunities for all students to level up.</i></p>	<p>Imperial A 6-12</p>	<p>10:30-11:15 F1059, 45-minute session EVAAS: The Basics Kirstin Morrison, <i>SAS EVAAS</i> <i>Educators will become familiar with interpreting EVAAS school-level reports, hosting student growth data conversations, and considering EVAAS data in instructional decision making and planning.</i></p>	<p>Colony C K - 12</p>
<p>9:30 - 10:15 F1039, 45-minute session Empowering Students as Partners in Assessment Meetal Shah, William McGowan, Michael Belcher, and Jere Confrey, <i>North Carolina State University</i> <i>Find out how Math-Mapper's digitally administered diagnostic assessments and real-time feedback help students gain agency and become partners in their learning process.</i></p>	<p>Cedar A 6 - 8</p>	<p>Sessions 10:30 AM</p>		<p>10:30 - 12:00 F2021, 90-minute session Mathematics for All: Moving Toward Cultural Proficiency Lisa Ashe and Denise Schulz, <i>NCDPI</i> <i>Mathematics continues to serve as a gateway to various opportunities and experiences for many students. The impact of teachers on the mathematical identity and agency of students can catapult opportunities for many students. In this session, participants reflect on their own mathematical identities, culture, and beliefs. As they move toward cultural proficiency, they will examine how drawing from their own experiences can benefit students in developing positive mathematical identities. This session is designed for K-12 educators in various roles.</i></p>	<p>Auditorium 3 K-12</p>
<p>9:30 - 10:15 F1041, 45-minute session Writing Assignments to Assess Statistical Reasoning Victoria Weber, <i>Meredith College</i> <i>Written assignments to assess student's statistical knowledge can be helpful in developing their statistical reasoning, especially with math-phobic students. Structure and examples will be given.</i></p>	<p>Biltmore A College</p>	<p>10:30 - 11:15 F1047, 45-minute session Math Masters Klaudia Dombkowski and Holly Averette, <i>Palisades Park</i> <i>Use your understanding of vertical alignment to motivate students and offer differentiated weekly enrichment opportunities. Leave with examples of pacing and enrichment activities.</i></p>	<p>Auditorium 2 PreK - 2</p>	<p>10:30 - 12:00 F2023, 90-minute session Differentiated Instruction to Engage Every Student Brenda LaFayette, <i>LaFayette Educational Consulting, LLC</i> <i>Learn time-tested differentiated instruction strategies you can use tomorrow. These strategies will stimulate academic interest and engage ALL of your students, while maximizing student achievement.</i></p>	<p>Biltmore B 6 - 12</p>
<p>9:30 - 10:15 F1043, 45-minute session EVAAS Data and Teaching Teams Kirstin Morrison, <i>SAS EVAAS</i> <i>Educators will explore ways to integrate EVAAS reports into teaching team reflection and planning practices in order to bolster student growth collaboratively.</i></p>	<p>Colony C K - 12</p>	<p>10:30 - 11:15 F1049, 45-minute session Free Tools to Engage and Empower Your Students Staci Lyon, <i>SAS Institute Inc.</i> <i>Looking for engaging and mobile-friendly resources? Come see a demonstration of high-quality, interactive resources that promote student autonomy and support graphing, solving, and reasoning skills.</i></p>	<p>Oak C 6 - 12</p>	<p>10:30 - 12:00 F2025, 90-minute session I See You: Strategies Promoting Successful Inclusion Meghan Lefevers, <i>Gaston Co</i> and Aubrey Bridges, <i>Winthrop Think College</i> <i>I See You is the story of Aubrey Bridges and Meghan Lefevers. Participants learn instructional and behavioral strategies used in a secondary inclusion math class that resulted in exceptional growth and proficiency.</i></p>	<p>Biltmore A 9 - 12</p>

Program Details for Friday, November 3, 2017

- 10:30 - 12:00** **Auditorium 4**
F2027, 90-minute session **PreK - 2**
From 1-2-3 to A-B-C: Developing Language through Mathematics
Catharina Middleton, Haleigh "Sage" Churchill, and Madison Lindgren, East Carolina University
Mathematics can be used as a vehicle for language acquisition. Presenters share the impact of their work with kindergarten ELLs through a mathematics methods experience.
- 10:30 - 12:00** **Meadowbrook**
F2029, 90-minute session **6 - 12**
Project Based Learning - Finding the sweet spot between Project and Problem Based Learning
Jennifer Parker and Suzanne Gibbons, Wake STEM Early College High School
Dig into Project and Problem Based learning and how to use the best of both worlds with real life projects and rich tasks.
- 10:30 - 12:00** **Arrowhead**
F2031, 90-minute session **6 - 12**
Come Explore Mod 7
Todd Rackowitz, Independence High School
For all teachers, Mod 7 is a great way to reinforce your understanding of the properties used to evaluate, simplify, and solve algebraic problems.
- 10:30 - 12:00** **Turnberry**
F2033, 90-minute session **6 - 12**
Do More With Desmos, Exploring Activity Builder
Julie Reulbach, Cannon School
Come experience Desmos Activity Builder! Learn how to find, use, and edit Desmos Activity Builders, and even create your own engaging activities!
- 10:30 - 12:00** **Pinehurst**
F2035, 90-minute session **6 - 8**
I Scream, You Scream, We All Scream for Ice Cream!
Christen VanNewkirk, Cleveland Middle School
Join us as we delve into developing performance tasks while we explore the relationships among the volume of cylinders, cones and spheres.
- 10:30 - 12:00** **Heritage A/B**
F2036, 90 minute session **K-12**
Marketplace
Shana Runge, Mary Beth Dailey, & Ray Jernigan, NCCTM
Pre-service teachers and classroom teachers with less than three years of experience may purchase current materials at bargain prices.
- 10:30 - 12:00** **Guilford A**
F3027, 90-minute workshop **9 - 12**
BYOI-Bring Your Own Investigation to Create in Desmos Activity Builder
Wendy Bartlett, Reagan High School
We will explore, create, and build investigations using the Desmos Teacher Activity Builder. Bring your ideas and laptops – that's all you need!
- 10:30 - 12:00** **Colony A**
F3029, 90-minute workshop **9 - 12**
Uncle Sam Knows Math! The Math behind Taxes
Amber Colley Thomas, North Carolina Council on Economic Education
Uncle Sam Knows How To Do Math! You Should too! Find out the relationship between earning cash and paying taxes using a simulation.
- 10:30 - 12:00** **Imperial G**
F3031, 90-minute workshop **9 - 12**
How Formative Feedback Can Lead to Improved Math Affect
Angela Cooper, Research Triangle High School
A student's attitude towards math may matter as much as their ability to perform in math class. Look at the research surrounding math affect and how formative feedback can improve student feelings toward mathematics.
- 10:30 - 12:00** **Imperial F**
F3033, 90-minute workshop **PreK - 5**
Math Morning Choice: Reassessing How We Start Our Day
Adam Dovico, Wake Forest University; Kyli White, Winston-Salem Forsyth County Schools; and Allison Siragusa, Guilford County Schools
Does morning work drive you nuts? Want your students excited to come into class? Join us for a hands-on experience, redefining how we start our day.
- 10:30 - 12:00** **Imperial E**
F3035, 90-minute workshop **6 - 8**
Outstanding Math Guide (OMG) 2
Leslie Hilderbrand, Fairplay Middle School
Come make an OMG containing graphic organizers with steps, examples and vocabulary for every key concept taught throughout the year. A must see!
- 10:30 - 12:00** **Tidewater**
F3037, 90-minute workshop **3 - 5**
Flipping the Classroom for the 21st Century Learner
Emily Hine, New Century Elementary International Elementary
Need more time for small group? Learn how to flip your classroom in order for your students to learn new content and still meet the needs of your other students.
- 10:30 - 12:00** **Augusta B**
F3039, 90-minute workshop **PreK - 2**
"It's Not Just Fluff- How to reach the needs of the gifted math student in the regular education classroom"
Andrea Judge and Mariah Morris, Moore County Schools
Hear about how to collaborate and teach in the regular education classroom to reach the needs of gifted students. We will discuss and model researched-based math lessons that differentiate instruction for the gifted learner. Highlights include: center/station rotation, tiered math instruction, self-directed learning and flexible pacing, and problem-based learning.
- 10:30 - 12:00** **Sandpiper**
F3041, 90-minute workshop **9 - 12**
A Visual Approach to High School Math
Rachel Lawrence, Woods Charter School
Help students engage with mathematical concepts visually to help make math more accessible for all learners! Complete some activities (such as area models, tile patterns, and working with graphs) to get your feet wet and leave with resources and inspiration for your own classroom. Tasks drawn from Math 1-3.
- 10:30 - 12:00** **Tanglewood**
F3043, 90-minute workshop **6 - 12**
Building Blocks: Vertical Alignment, Foundation to Ceiling
Rob Leichner, Charlotte-Mecklenburg Schools and Martha Ray, Guilford County Schools
Are your students learning factoring, fractions, and functions the same way every year? Here's a vertical alignment framework to help your school align instruction.
- 10:30 - 12:00** **Pebble Beach**
F3045, 90-minute workshop **PreK - 5**
Seeing Mathematically: Visual Strategies for teaching Numbers and Operations.
Tina Lupton, Davidson County Schools
Need a different approach to teaching numbers and operations? Attend this session and be engaged in fun and colorful strategies to connect your students to number concepts. K-5 visual strategies for teaching numeracy, operations, algebraic thinking and modeling.
- 10:30 - 12:00** **Colony B**
F3047, 90-minute workshop **PreK - 5**
Using Literature to Improve Student's Mathematical Reasoning
Susette McConnell, Long Mill Elementary/East Carolina University and Elizabeth Howard, Belvoir Elementary School/East Carolina University
Explored the effects of integrating literature into mathematics classes by guiding students in writing word problems that related to a books.
- 10:30 - 12:00** **Morehead**
F3049, 90-minute workshop **PreK - 2**
Eye the Prize
Denise McDowell, Big Ideas Learning, LLC
Experience the delight of math through a child's eyes using activities to develop conceptual and perceptual subitizing skills.
- 10:30 - 12:00** **Blandwood**
F3051, 90-minute workshop **3 - 5**
Strategies to Engage the Math Mind
Shirley Disseler, High Point University
Getting students to think about math is often difficult! This workshop will provide some hands-on strategies for engaging kids in math content, logical thinking, and discussions about math.
- 10:30 - 12:00** **Imperial B**
F3053, 90-minute workshop **PreK - 5**
Not Your Average Reteach
Busola Stackhouse and Robyn Hobson, Charlotte Mecklenburg Schools
What do you do when they don't get it? During this session, participants will learn strategies for addressing targeted misconceptions using an innovative reteach model.
- 10:30 - 12:00** **Imperial H**
F3055, 90-minute workshop **3 - 5**
Creating Fraction Mathematicians
Melva Stewart, Bains Elementary, West Feliciana Parish, LA (retired)
Turn your struggling mathematicians into astounding mathemagicians! Come delve into Math'n'Maddox: Mathemagicians to uncover amazing ideas and activities that make students' fraction fears disappear!

Program Details for Friday, November 3, 2017

10:30 - 12:00 Imperial C
F3057, 90-minute workshop 3 - 5
Fractions Are a Part of the Whole You Know!
Kim Sutton and Ruth Harbin Miles, Creative Mathematics
Experience meaningful strategies for teaching fractions through three models---area, set and number line! You will lose yourself in this motivating opportunity to learn ways make fractions more meaningful!

10:30-11:15 Cedar B
F3058, 90-minute workshop 6 - 12
Investigating Incredibly Impactful Individualized Inquiry - What is the BIG deal behind PBL Anyway?
Kristyn Daney, Lexington County Schools; Martha Manzonelli and Holli Hudson, Surry County Schools
Interested in infusing real world authentic math problems into everyday curriculum? Inquiry problems, grade specific to NCSCOS, completed in YOUR classroom as standards are introduced.

Keynote 11:30 AM
11:30-12:15 Guilford C
F4009, 45-minute session K-12
Using the Mathematical Practices to Build Coherence
William McCallum, Illustrative Mathematics
A coherently arranged curriculum makes it possible for a student to see the subject as a whole, to understand the logical connections and deep structures, and to use that understanding for more efficient problem-solving and better retention of knowledge and procedures. But making it possible does not make it probable. The way students do mathematics, their mathematical practice, may have an effect on their ability to take advantage of a coherent curriculum. In this presentation we focus on three of the Standards for Mathematical Practice that have particular importance for coherence, MP2, MP7, and MP8. There will be plenty of time for questions from the audience.

Sessions 11:30 AM
11:30 - 12:15 Cedar A
F1061, 45-minute session 6 - 8
Connecting Children's Literature in a Middle Grades Math Class
Candice Brucke, West-Oak Middle School, Oconee County, SC
Presenter will share 100+ popular children's books to use in middle grades math classes. Free lesson plans/activities, book list, rubrics, prizes and lots of giggles.

11:30 - 12:15 Imperial D
F1063, 45-minute session PreK - 2
Super-Easy Math Centers
Jill Carter, Morgan Elementary
Learn about some easy K-2 math centers you can quickly teach your students that use dice, cards, dominoes, and much more!

11:30 - 12:15 Augusta A
F1065, 45-minute session PreK - 5
Math Identity: Using Relevant Problem Situations
Kelley Dieffenbach, Creedmoor Elementary School and NC State University
Attend this session for resources for providing students with learning experiences that are relevant, real-life mathematical situations, thereby contributing to their identities as mathematicians.

11:30 - 12:15 Colony C
F1067, 45-minute session K - 12
Breakout"EDU" of the Math Norm
Caroline Godwin and Kelly Williamson, Craven County Schools
Learn about escaping the boring mathematics classroom. You will leave with ready to use plans for implementing BreakoutEDU in your classroom.

11:30 - 12:15 Oak B
F1071, 45-minute session 6 - 8
Data Driven Instruction Using Imagine Math
Krista Hannah, Guilford County Schools and Marisa Grimmus, Imagine Math
Teachers will receive ideas and strategies for analyzing and utilizing data from assessments and Imagine Math to drive engaging, rigorous, and purposeful instruction.

11:30 - 12:15 Oak A
F1073, 45-minute session PreK - 5
Fostering a Positive Mathematical Identity through Productive Struggle
Alexandra Humphries and Stefanie Bordeaux, Orange County Schools; Caitlin Kearney, Maureen Joy Charter School
Explore how to support and celebrate productive struggle in order to establish a culture of positive, growth-oriented mathematical identity in your classroom.

11:30 - 12:15 Cedar C
F1075, 45-minute session 3 - 5
Breakout of the Traditional Math Classroom
Tanya Klanert and Cindy Grindstaff, W.A. Young Elementary
Are your students bored with the same old math activities? Breakout and bring math to life with real world experiences.

11:30 - 12:15 Cedar B
F1077, 45-minute session 9 - 12
Explore, Synthesize, Analyze: 3 Steps to Engaging Students
Jan Mays, Elon University
We will examine how to go beyond procedural understanding to develop and use discovery activities to guide students to "own" math concepts (examples provided).

11:30 - 12:15 Auditorium 2
F1079, 45-minute session 9 - 12
Rockets in Math 1: A Mini Grant Project
Julie Riggins, East Forsyth High School
With the help of an NCCTM Mini Grant, my students built model rockets and used an altimeter to learn about quadratic and linear functions.

Sessions 12:30 PM
12:30-1:15 Auditorium 4
F1081, 45-minute session K-12
Presidential Award for Mathematics Teaching
Joseph Reaper, NCDPI
This award is one of the highest recognitions a teacher can receive for mathematics teaching. Come learn about the program and hear from past awardees. Awardees receive \$10,000 and a trip for two to Washington, DC.

12:30 - 1:15 Imperial D
F1083, 45-minute session PreK - 2
Calendar Time
Holly Averette and Klaudia Dombkowski, Palisades Park
Learn how to use calendar time to reinforce key objectives and enrich your curriculum. View samples in action. Leave with templates differentiated by grade level.

12:30 - 1:15 Auditorium 2
F1085, 45-minute session 6 - 12
Why are there so many rules? The case of equation solving.
Thomas Coleman, Greensboro College
Equation solving typically follows a set procedure (i.e. inverse order of operations). This session will explore alternate methods for solving equations and their potential benefit for students' understandings.

12:30 - 1:15 Cedar B
F1087, 45-minute session 6 - 8
Encouraging Math Chatter in your Classroom
Susan Davis, Lee County Schools and Esther Hollingsworth-Shaw, Hoke County Schools
We hope to introduce short 5-10 minute activities that can be used as daily warm ups or activities to encourage discussion in math class. Handouts will be given.

12:30 - 1:15 Cedar A
F1089, 45-minute session PreK - 5
STEM Family Night
Ryan Dougherty, ETA hand2mind
Discover easy to use, hands-on, family oriented activities you can use during a STEM Family Night.

12:30 - 1:15 Colony C
F1091, 45-minute session College
Developing Preservice Teachers Understanding of Function using a Machine Metaphor Applet
Cyndi Edgington, NC State University and Allison McCulloch, UNCC
This session presents an applet designed to help PSTs to develop their conceptual understanding of function using a machine metaphor. Participants will engage with the applet and analyze PSTs' work with the task.

12:30 - 1:15 Oak C
F1093, 45-minute session 6 - 8
Increasing the Rigor in Advanced Math Classes
Rachel Gregg, Iredell Statesville Schools
Increasing the Rigor in the mathematics classroom through a spiraled curriculum can increase the level of cognitive understanding in specific mathematical content.

12:30 - 1:15 Oak A
F1095, 45-minute session K - 12
Understanding and Improving Students' Mathematics-Related Beliefs
Shelby Morge, UNCW
How do your students feel about doing math? In this session, you will engage in activities that you can use to better understand your students' mathematics-related beliefs and discuss strategies to improve them.

Program Details for Friday, November 3, 2017

<p>12:30 - 1:15 F1097, 45-minute session Visualizing Mathematics through 3D Printing: Mini-grant Project Emily Myers, Wilmington Early College High School <i>Experience 3D printing provided by a NCCTM mini-grant. Learn how students develop their mathematical understanding while also analyzing and applying their learning beyond the classroom</i></p>	<p>Cedar C 9 - 12</p>	<p>12:30 - 2:00 F2045, 90-minute session Lessons from the 2017 AP Calculus Exams Stephen Davis, Davidson College <i>The Chief Reader reflects on the 2017 AP Calculus exams, exam development and grading, and student performance.</i></p>	<p>Pinehurst 9 - 12</p>	<p>12:30 - 2:00 F3065, 90-minute workshop Earning Credit Amber Colley Thomas, North Carolina Council on Economic Education <i>Are your students ready to buy a car? They need credit! Come and learn how to simulate their credit score while teaching the importance of earning a stellar credit score! Turn Key Lessons Included!</i></p>	<p>Colony A 9 - 12</p>
<p>12:30 - 1:15 F1099, 45-minute session Promoting Growth Mindset with Formative Assessment Erica Slate Young, Appalachian State University <i>In this session, participants will learn about key principles underlying effective formative assessment as well as specific easy-to-implement strategies to use in their own classrooms.</i></p>	<p>Biltmore A 6 - 12</p>	<p>12:30 - 2:00 F2047, 90-minute session You can!...Motivating Struggling/Reluctant Learners Maria Dove-Thaggard, Stanly County Schools <i>Have you ever wondered how to motivate students who have typically struggled or may be hesitant to engage? Come and gain strategies and activities that can be implemented immediately in your classroom to motivate the unmotivated.</i></p>	<p>Arrowhead 6 - 12</p>	<p>12:30 - 2:00 F3067, 90-minute workshop Innovative Ways to Plan Guided Math and Build Accountability Brittney Dennis and Erica Wright, Bessemer Elementary <i>This session will provide fun and interactive lessons, you can incorporate in your classrooms; tomorrow! Innovative ways to build accountability within centers and track student data while building student's self-efficacy.</i></p>	<p>Pebble Beach 3 - 5</p>
<p>12:30 - 1:15 F1100, 45-minute session Addressing Student Needs in Secondary Classrooms Maureen Grady, East Carolina University and East Carolina University Interns <i>Join ECU interns as they share ideas for addressing issues like student engagement, classroom management, academic language, cultural assets, and formative assessment.</i></p>	<p>Oak B 6 - 12</p>	<p>12:30 - 2:00 F2049, 90-minute session Class Management Methods Kids Don't Want You to Know Brenda LaFayette, LaFayette Educational Consulting, LLC <i>Learn to eliminate repeated warnings & requests without using gimmicks, while gaining instruction time and empowering students to take responsibility for their actions and achieve success.</i></p>	<p>Biltmore B 6 - 12</p>	<p>12:30 - 2:00 F3069, 90-minute workshop Painless Exam Review Sessions for Math 1 Allison George, Winston Salem/Forsyth County Schools <i>Struggling to keep your kids interested for three hours during exam review? Come learn and share some interactive and art based review activities to keep your students (and you) engaged and happy!</i></p>	<p>Morehead 6 - 12</p>
<p>12:30 - 2:00 F2037, 90-minute session Responsible Assessment: Aligning Assessment to Decision Making Matt Hoskins and Denise Schulz, NCDPI <i>This session will describe the responsible use of mathematics assessment by aligning intended purposes to instructional decision making.</i></p>	<p>Auditorium 3 PreK - 2</p>	<p>12:30 - 2:00 F2051, 90-minute session Multiple Ways to Multiply Eric O'Brien, Math Olympiads <i>Encourage your students to delve into two- and three-digit multiplication. Improve mental computation for students throughout your school!</i></p>	<p>Augusta A K - 12</p>	<p>12:30 - 2:00 F3071, 90-minute workshop Rekenrek What? The Power of Hands-on Manipulatives Kathleen Hodgkins, Weatherstone Elementary <i>At this workshop you will use rekenreks, counters, and other manipulatives to explore mathematical concepts. We will discuss using manipulatives in whole- and small-group activities.</i></p>	<p>Colony B PreK - 2</p>
Workshops 12:30PM					
<p>12:30 - 2:00 F2039, 90-minute session Kinesthetic Strategies for Mastering the Unit Circle Suzy Koontz, Learn Thru Movement/Math & Movement <i>Learn kinesthetic strategies for how the unit circle patterns can facilitate learning co-terminal angles, trig functions, and signs of trig functions in different quadrants.</i></p>	<p>Tidewater 9 - 12</p>	<p>12:30 - 2:00 F3059, 90-minute workshop Proportional Reasoning in the Middle Julie Bacak, Anne Copenhaver, and Rebecca Jones, Leland Middle School <i>A big math idea of middle school is to help students develop proportional reasoning. Come explore activities and strategies that support this development for students.</i></p>	<p>Sandpiper 6 - 8</p>	<p>12:30 - 2:00 F3073, 90-minute workshop Math Make-and-Take Light Up Game Bobbie Lequire, Durham Public Schools <i>Want to make your students' faces light up! Come have fun creating a math light up game! Just bring math problems/answers for creating your game.</i></p>	<p>Augusta B PreK - 2</p>
<p>12:30 - 2:00 F2041, 90-minute session Proven Gains with Ratio Learning Trajectories Michael Belcher, Will McGowan, Meetal Shah, and Jere Confrey, North Carolina State University <i>We share work with sixth graders at a partner school, reporting significant gains in achievement and teacher effectiveness using Math-Mapper software, curriculum, and diagnostic assessments.</i></p>	<p>Meadowbrook 6 - 8</p>	<p>12:30 - 2:00 F3061, 90-minute workshop TGIF! Upper Elementary and Middle Years Math Games Stephanie Bainbridge, Box Cars and One-Eyed Jacks <i>Come prepared to play card and dice games and learn ways to motivate and engage even your most reluctant learners. Participants will receive gameboards and ideas for many parts of the curriculum</i></p>	<p>Guilford A 6 - 8</p>	<p>12:30 - 2:00 F3075, 90-minute workshop Collaborative Coding for All (for FREE) Staci Lyon and Lucy Kosturko, SAS Institute Inc <i>With only one tablet and one robot, learners prepare programs together using printed coding blocks that, when scanned by CodeSnaps, execute on the connected robot.</i></p>	<p>Imperial H K - 12</p>
<p>12:30 - 2:00 F2043, 90-minute session Humorous Identity - The Math Development June Blackwell, Sanderson High School <i>Graphic Organizer activities, songs, technological sites, and project ideas will be demonstrated to develop deeper understanding of mathematical concepts for Math 1, 2, & 3.</i></p>	<p>Auditorium 1 9 - 12</p>	<p>12:30 - 2:00 F3063, 90-minute workshop Hands-on Fraction Division Janelle Chisholm, No Teacher Left Behind Professional Development <i>Come and see how to use paper fraction circles to make sense of fraction division. Handouts given. Fun will be had!</i></p>	<p>Tanglewood 3 - 5</p>	<p>12:30 - 2:00 F3077, 90-minute workshop Algebraic Procedures Needing a Conceptual Makeover Karen McPherson, Buncombe County Schools <i>Too often algebraic procedures are whittled down to a flowchart or a gimmick. The Mathematical Teaching Practices include building procedural fluency from conceptual understanding. In this session, we will examine some of these procedures, explore tasks that help students build conceptual understanding, and discuss the connections between the two.</i></p>	<p>Imperial G 9 - 12</p>

Program Details for Friday, November 3, 2017

		Sessions		1:30 PM			
<p>12:30 - 2:00 F3079, 90-minute workshop Connected With Literature Erin Moss and Elnor Patterson, Wake County Public Schools <i>Dive into the world of children's literature with a math theme, and explore ways to help students connect with math concepts through literature.</i></p>	<p>Imperial F PreK - 5</p>	<p>1:30 - 2:15 F1103, 45-minute session Constructing Math Identities through Literacy Beth Coleman, UNC Chapel Hill <i>This presentation will explore the benefits of using multicultural children's books that incorporate mathematical concepts as a way to build positive mathematical identities.</i></p>	<p>Auditorium 4 PreK - 5</p>	<p>1:30 - 2:15 F1113, 45-minute session Virtual Math Kristin Hunt and Holly Averette, Palisades Park <i>Learn how to utilize technology, including Kahoot, Quizziz, and ShowMe, to engage students, create differentiated learning opportunities, and maximize student growth and engagement. Bring iPad.</i></p>	<p>Oak B 3 - 5</p>		
<p>12:30 - 2:00 F3081, 90-minute workshop Bringing Students "Into the Fold" Evalee Parker, DINAH.COM and Debbie Glover, Valle Crucis School <i>Create 3-D graphic organizers that help students interact with mathematical content and concepts. Foldables® use visual and spatial modalities to build understanding, make connections and remember information.</i></p>	<p>Imperial E 3 - 5</p>	<p>1:30 - 2:15 F1105, 45-minute session Real-Time Learning Trajectory Data=Learning Gains Jere Confrey, William McGowan, Meetal Shah, and Michael Belcher, NC State University <i>Enact engaging tasks, leverage student thinking with learning trajectories, and elevate students to partners in assessment with Math-Mapper 6-8. Learn about our pilot program.</i></p>	<p>Auditorium 2 6 - 8</p>	<p>1:30 - 2:15 F1115, 45-minute session Formative Assessment in the Math Classroom Leigha Jordan, Middle School Math Coach - Buncombe County Schools <i>Formative Assessment improves student performance! Come explore types of formative assessments, interactive sites for creating and responding to formative assessments, and other online resources.</i></p>	<p>Oak A 6 - 12</p>		
<p>12:30 - 2:00 F3085, 90-minute workshop Teaching Mathematics for Social Justice Elyse Smith, Gregory Downing, and Brittney Black, NCSU <i>Our plan is to show teachers through a demonstrative workshop with a sample activity from Eric Gutstein's book that they can create activities to use in the classroom around social justice concepts.</i></p>	<p>Imperial B 6 - 12</p>	<p>1:30 - 2:15 F1107, 45-minute session It's a Calculator on Steroids Ryne Cooper, West Iredell High School and Mike Swinson, Washington High School <i>Come learn how to use the many features of Desmos online calculator; graphing, statistics, real time transformations and more, it's a calculator on steroids.</i></p>	<p>Colony C 6 - 12</p>	<p>1:30 - 2:15 F1117, 45-minute session Productive Math Discussions for All Students Heidi Mills, Johnston County Schools <i>Do you want to make the math conversations in your class more purposeful? We will discuss strategies to increase engagement for all!</i></p>	<p>Cedar C PreK - 5</p>		
<p>12:30 - 2:00 F3087, 90-minute workshop Walk the Number Line for Research-Based Results! Kim Sutton and Ruth Harbin Miles, Creative Mathematics <i>Come and experience how many ways a number line can impact your elementary classroom! Be prepared to sing, dance and leave inspired for teaching alternative algorithms, making change, elapsed time, rounding and more!</i></p>	<p>Imperial C 3 - 5</p>	<p>1:30 - 2:15 F1109, 45-minute session Math Notebook Danielle Flores, North Carolina Virtual Public Schools <i>This presentation will included foldables, practice and assessments for Math One and 8th grade math. I will show how I used a math notebook and daily assessment in my classroom every day. Examples on many standards aligned with NC Math One and 8th grade math will be included.</i></p>	<p>Biltmore A 6 - 12</p>	<p>1:30 - 2:15 F1119, 45-minute session Global Education in a Math Classroom Stephanie Morgan, Pisgah High School <i>Basic strategies, ideas, and resources to help incorporate global education into a math classroom as well as discussion about other ways to incorporate global education.</i></p>	<p>Cedar B 9 - 12</p>		
<p>12:30-2:00 F3089, 90-minute workshop Beginning Teachers Unite: Top 5 things to remember from your teacher preparation programs! Temple Walkowiak and Valerie Faulkner, NC State University <i>Come join us as we discuss the demands of the classroom and review the ideals you learned as pre-service teachers. We will support you in how to merge your mathematics preparation with your practice!</i></p>	<p>Imperial A PreK - 5</p>	<p>1:30 - 2:15 F1111, 45-minute session The Active Learner Emily Hine, New Century Elementary <i>Learn how to engage your students with different games, and activities, in order to increase your students' knowledge. Walk away with things to do in your classroom.</i></p>	<p>Oak C 3 - 5</p>	<p>1:30 - 2:15 F1121, 45-minute session Front End Alignment Sarah Ploeger, Cramerton Middle School <i>What up-front work will really prepare students? This session is geared toward 4th-8th grade level teachers to delve into preparing students for what's to come.</i></p>	<p>Cedar A 6 - 8</p>		