

NORTH CAROLINA COUNCIL OF TEACHERS OF MATHEMATICS

Developing
Mathematical Mindsets
for all



49th Annual State Conference
November 7-8, 2019
Greensboro, North Carolina



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NCMATH19

Magnetic Ten Frame Paddles

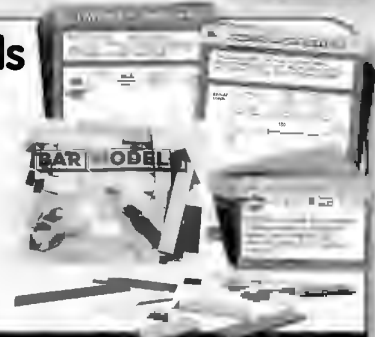


Teach number sense, addition, subtraction, and place value concepts in a visual way with double-sided dry-erase paddles!

Bar Models

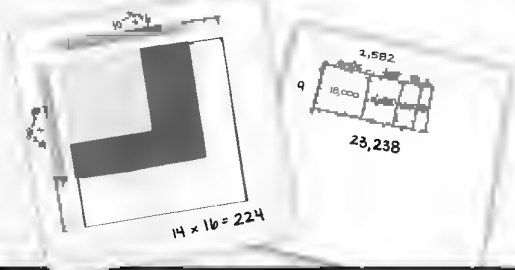
$$6 + \square = 7$$

$$7 - 6 = \square$$



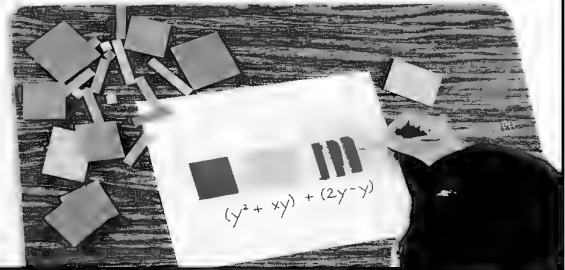
Designed to help students understand and represent the structure of operational problems which includes joining, separating, and comparing. Activity sets available!

Visual Area Modeler



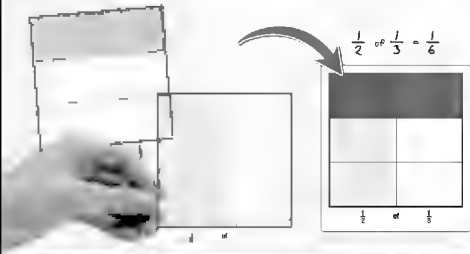
Provide students a foundation to move from a concrete representation of a problem, to the pictorial, then to the standard algorithm using base ten or algebra tiles!

Algebra Tiles Extension Set



Our new Extension set of algebra tiles contains exclusive x^2 and xy pieces that provide exciting new options for classroom algebra activities.

Fraction Model Multipliers



Visually model what happens when multiplying fractions with different denominators. Pick a card, place an overlay on top of the card and the answer is revealed in green!

Jumbo Magnetic X-Y Grid



Use the four magnetic, dry-erase quadrants individually, or join them together for one complete X-Y coordinate grid. Measures 26" x 26" when assembled!

For questions and quotes, contact your EAI® Education Sales Team:

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*Exceptions: Code NCMATH19 must be referenced on purchase order to receive discount. Products excluded from discount and free shipping include ALL products from Texas Instruments®, CalcPal®, Casio®, Sharp®, Vernier®, drop-shipped items, furniture, carpets, and select storage containers. Order these items at regular catalog prices. Standard shipping rates apply. Products excluded only from discount include 5eBoard™, Bloxels®, Brown Dog Gadgets, Cubelets®, littleBits™, Makey Makey, Ozobot®, SAM Labs, Sphero®, TeacherGeek, and Wonder Workshop. Order these items at regular catalog prices. Cannot be combined with any other coupons, sales, offers, bids or quote pricing. Valid until 1/31/2020.

Developing Mathematical Mindsets for ALL

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This is a simplified program book. Full session details, including speakers and descriptions, are available in Sched (see pg3)

Welcome from NCCTM's President

Welcome to the 49th Annual NCCTM Fall Conference: *Developing Mathematical Mindsets for all!*

The five words of this year's conference theme are particularly compelling for me. As I think about what this theme means, I am immediately struck by three things. First the idea of *Developing*. As I teach, I am constantly thinking about what my students are learning--the knowledge, skills, and mathematical practices that they are developing. I remind myself that *developing* means that it is a continuing process. Skills can become more efficient, content knowledge can get deeper, and mathematical practices can be embraced, but all can continue to *develop*. Second is the idea of *Mathematical Mindsets*. I tell my students that mathematics is like another language. It has its own vocabulary, its own syntax, and its own discourse. It also has its own *mindset*. How we approach mathematics makes the difference. If we approach mathematics as a curiosity with mysteries to solve, ideas to discuss, and skills to master, then it is a joy. Finally, and most importantly, it is *for all*. Many things divide our communities and our nation, but educating children should not be one of them. *ALL* of our students need to experience mathematics in ways that allow them to be successful and to develop a mathematical mindset, and the sessions at this conference can help you find new ways to help make it happen.



Dr. Kathy Jaqua
NCCTM President

I am excited about the wonderful conference that has been created through the work of many VOLUNTEERS. This conference is always one of the best in the country, and we owe that to the people who make it happen. While I cannot recognize all of the people who have contributed to making this conference a reality, I do want to note that our conference co-chairs, Stefanie Buckner, Holly Pinter, and Julie Kolb and our program co-chairs, Drew Polly, Jenna Regan and Julie Riggins have volunteered many hours to secure outstanding Keynote and Featured Speakers, collect, review, and organize the session proposals, develop the on-line program using the *shed* app, and in general make everything work smoothly down to balloons and signs. Their work for NCCTM, for you, and for all of our students is done in addition to their own teaching and other job responsibilities, and I am very appreciative of their willingness to take on this huge task. I also want to recognize all of our speakers for the hours of time spent developing proposals and preparing presentations. Without you, this conference could not happen, and it would not be as rich.

I hope you enjoy your time among colleagues, thinking and talking about teaching and learning mathematics. I also hope that you leave with a renewed commitment to *Developing Mathematical Mindsets for all* in your classroom.

Sincerely,

Dr. Kathy Jaqua
President, North Carolina Council of Teachers of Mathematics
Professor of Mathematics Education & Mathematics
Western Carolina University

2019 Conference Highlights

Materials Marketplace

Thursday, November 7 2:00pm-4:00pm
Friday, November 8 10:30am-12:00pm
Heritage A/B

Pre-service teachers and classroom teachers with less than three years of experience may purchase new and gently-used materials at bargain prices.

Student Math Fair Projects

Thursday, November 1 8:00am-4:30pm
Friday, November 2 8:00am-1:30pm
Exhibit Area Guilford Ballroom DEFG

NCCTM sponsors three regional Math Fairs each spring, followed by the State Math Fair. Come view the work of some of the top students K-12.

NCCTM T-Shirt Sale

Thursday, November 2 8:00-4:40
Friday, November 3 8:00-2:00

Show your NCCTM spirit and purchase an NCCTM t-shirt that features the winning logo from the annual Logo Contest. Submissions come from students K-12.

Follow @ncctm1 Tag #ncctm19

We are tweeting about events, deadlines, and letting you know about keynote speakers for the conference! Be sure to follow @NCCTM1 to stay up to date on all things NCCTM! Tag your conference social media post with #ncctm19!



NCCTM Free Gift

Make sure to visit the NCCTM booth in the Exhibit Hall to receive your free gift!

NCCTM Awards Celebration

Thursday, November 7 Guilford C
Reception 4:00pm-4:30pm
Ceremony 4:30pm-6:00pm

We will recognize outstanding math teachers and students. Light refreshments will be provided, beginning at 4:00, followed by the ceremony at 4:30. Following are some of the recognitions:

Outstanding Elementary Mathematics Teachers
(Presented by NCDPI Mathematics Section)

Presidential Awards Winners and Finalists
(Presented by Joseph Reaper, NCDPI)

Outstanding Mathematics Education Students
(Presented by Ana Floyd)

Outstanding Coach/Sponsor Award and ARML Award
(Presented by Ana Floyd and Philip Rash)

American Mathematics Competitions Awards
(Presented by Harold Reiter and Randy Harter)

Innovator Award
(Presented by Ana Floyd)

W. W. Rankin Award
(Presented by Lee Stiff)

The last event at the Awards Celebration is a door prize give-away as exhibitors donate dozens of wonderful prizes. Must be present to win.



Access the digital up-to-date program through SCHED. Download **Sched** in your app store and search for "NCCTM" or online at

www.2019ncctm49thannualfallconf.sched.com

(We will move exclusively to Sched in 2020 - no more paper book in Winston-Salem!)

General Conference Information

Lost Materials

If you lose or misplace your pre-registration packet including your name badge and/or receipt, please proceed to the Registration Assistance booth designated for lost materials. The Registration Desk will maintain a message/bulletin board and serve as a clearinghouse for lost and found items.

Commercial Exhibits

Commercial exhibits feature the most current mathematics education products, publications, software and services. These exhibits are located on the main floor of the Koury Convention Center in the Guilford Ballroom. Entry is through the main lobby area. Name badges must be shown for admission into the exhibit hall. Exhibits will be open to all registered conference participants at these times:

Thursday, November 7, 8:00am-4:40pm

Friday, November 8, 8:00am-2:00pm

Please refer to pages 34 – 36 for a complete list of all exhibitors, booth assignments and a diagram of the exhibit hall.

Emergencies

In case of an emergency, call the Sheraton Greensboro Hotel at Four Seasons, (336) 292-9161. Messages for persons staying at the hotel may be recorded on voicemail. The conference headquarters staff may be reached in an emergency at (706) 424-1350.

Information Kiosk

Located in the Registration Area, you can obtain general registration information and pick up forms for on-site registration.

Name Badges

Conference name badges are required for admission to all sessions, workshops, and exhibits of the conference.

Admission will be denied if the badge is not worn. Free name badge holders are available at the Information Kiosk.

Workshop Tickets

No tickets are required for workshops; however, there is a limit of 40 participants per workshop. Seats are offered on a first come, first serve basis.

Meeting Room Maps

A map of the meeting rooms is located on the back of the front cover and on page 46 of this program book.

Copyrighted Materials

NCCTM will not allow the use of copyrighted materials in sessions or workshops unless prior permission to use these materials is obtained. References to products by speakers are not to be considered endorsements by NCCTM.

Sched/Twitter Help

NCCTM is moving to a more environmentally friendly conference in 2020 and will not print a paper book for all attendees (as this). Use this year to learn Sched and/or Twitter. Help on either can be found at the Tweet Up Booth – next to the NCCTM booth in the Exhibit Hall!

Going Green! Starting in 2020 NCCTM will be using Sched exclusively for the Conference Schedule

Conference Committee Chairs

Conference Chairs	Stefanie Buckner, Holly Pinter & Julie Kolb	MTBoS, Twitter	Lauren Baucom
Program Chairs	Drew Polly, Jenna Regan & Julie Riggins	Commercial Exhibits	Kay Swofford & Lydia Kirkman
Program Book	Stefanie Buckner	Conference Services	Marilyn Preddy
Marketplace	Shana Runge	Student Fair Exhibits	Betty Long
Registration	Joette Midgett	Management Services	Joette Midgett & Kay Swofford
Math Celebrations	Anthony Finlen		

NCCTM Information

The North Carolina Council of Teachers of Mathematics (NCCTM) is the professional organization in North Carolina of all persons responsible for the teaching of mathematics. Its membership includes teachers from all levels, kindergarten through graduate school, and other professionals who work with curriculum and materials for the teaching of mathematics. You'll find out more about NCCTM through the website (www.ncctm.org) including some of its programs like state and regional conferences, publications, grants and awards, and other professional activities. Membership is open to all persons who have a professional interest in mathematics education.

The state is divided into three regions. Each region has its own programs, in addition to those of the state organization. Elected officers determine program and policy.

Membership Fees *(Membership year is July 1 - June 30)*

\$30/one year

\$75/three year

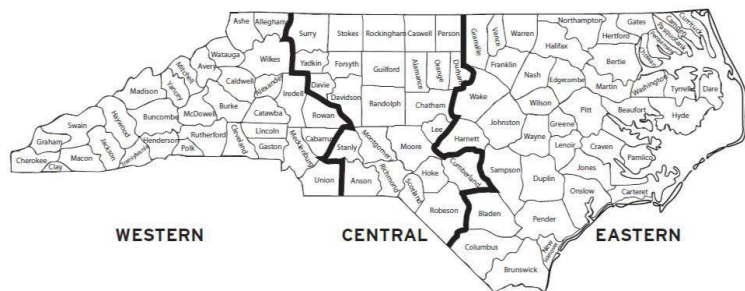
\$120/five years

\$0/full-time students

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Past President -- Julie Kolb
Elementary VP— Ana Floyd
Middle Grades VP—Kim McCuiston
Secondary VP—Lauren Baucom
Colleges VP—Charity Cayton
Secretary—Emily Elrod

NCCTM REGIONAL STRUCTURE



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Middle Grades VP—Tanya Ford
Secondary VP—Wendy Bartlett
Colleges VP—Adam Pennell

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President—Ginger Rhodes
Past President -- Tim Hendrix
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Middle Grades VP—Allison Landry
Secondary VP – Bill Worley
Colleges VP—Maureen Grady

Spring Regional Conferences

Western Region

For more information, contact:

Shelia Brookshire
sdsbrookshire@gmail.com

Central Region

For more information, contact:

Denise Johnson
johnsondt@wssu.edu

Eastern Region

For more information, contact:

Ginger Rhodes
rhodesg@uncw.edu

2019 Keynote Speakers

Robert Q. Berry, III

Professor, University of Virginia
President, National
Council of Teachers of
Mathematics
Sponsored by Pearson



Biography:

Robert Q. Berry III is a Professor in the Curry School of Education at the University of Virginia, with an appointment in Curriculum Instruction and Special Education. Berry teaches mathematics methods courses in the teacher education program at the University of Virginia. Additionally, he teaches graduate level mathematics education courses and courses for in-service teachers seeking a mathematics specialist endorsement. He is a former middle school teacher and was twice named Teacher of the Year in Virginia.

Equity issues in mathematics education are central to Berry's research efforts within four related areas: (a) understanding Black children's mathematics experiences (mathematical identities and agency); (b) measuring standards-based mathematics teaching practices; (c) unpacking equitable mathematics teaching and learning; and (d) exploring interactions between technology and mathematics education. Berry has extensive experiences in classroom observation and is the lead developer of an observation instrument, *Mathematics Scan*, which measures standards-based mathematics teaching practices.

Berry has collaborated on the Children's Engineering Initiative in the Curry School of Education to use digital fabrication to incorporate engineering design principles into mathematics education. His most recent work has focused on using qualitative metasynthesis as an approach to understand the mathematics experiences of learners

Berry has published nearly 100 articles, book chapters, and proceedings. His articles have appeared in the *Journal for Research in Mathematics Education*, *Journal of Teacher Education*, and the *American Educational Research Journal*. Berry served on the Board of Directors of the National Council of Teachers of Mathematics 2011–2014 and is a two-time recipient of NCTM's Linking Research and Practice Publication Award. He was recognized as the 2011 Mathematics Educator of the Year by the Virginia Council of Teachers of Mathematics (VCTM), and received the University of Virginia's All University Teaching Award in 2011.

Robert Berry received his Bachelor of Science degree from Old Dominion University, his master's degree from Christopher Newport University, and holds a Ph.D. from the University of North Carolina at Chapel Hill.

Initiating Critical Conversations in Mathematics Teaching and Learning

Thursday, November 7

10:30 - 12:15

Guilford C

The National Council of Teachers of Mathematics (NCTM) formed three writing teams at the early childhood/elementary, middle school, and high school levels with the intent to initiate the critical conversations needed to address the purposes of school mathematics. The Catalyzing Change series focuses on key recommendations for school mathematics with the purpose of initiating critical conversations for improving mathematics teaching and learning in school mathematics. This talk is intended to initiate critical conversations based on the key recommendations from the Catalyzing Change series.

2019 Keynote Speakers



Valerie Faulkner

Associate Teaching Professor
NC State University

Biography:

Valerie Faulkner is Associate Teaching Professor in the Teacher Education and Learning Sciences department at NC State. A dynamic speaker, her 2012 TEDxNCSU lecture “Let’s teach the substance behind mathematics” was chosen as a lecture of the month by TED.

Dr. Faulkner teaches Math Methods classes and senior seminar classes for student teachers. She has received both the College of Education Outstanding Teacher Award and the NC State Alumni Association Outstanding Teaching Award in 2015 as well as the NC State University ‘Chancellor’s Creating Community – Outstanding Faculty Award’ in 2014.

For 17 years she worked in the Public Schools in North Carolina as a Special Educator. She is co-author and State Level trainer of the North Carolina Department of Public Instruction Foundations of Mathematics 5-day professional development.

She is the lead author of the newly released book *The Stories We Tell: Math, Race, Bias, and Opportunity*, Rowman & Littlefield (2019, Valerie Faulkner, Patricia Marshall, Lee Stiff).

The Stories We Tell: Math, Race, Bias, and Opportunity

Friday, November 8

8:30 – 10:15

Imperial D

In this session we will explore the nature of mathematics education culture and what we can do to disrupt inequity in our school, and classroom, practices.

Equality and Equity in an Underfunded School, How High Expectations Impact Outcomes

Friday, November 8

10:30 – 11:15

Imperial D

First, we will set the stage with classroom data from Jasmin Nabors. Nabors, the school’s motivational teacher of the year, will demonstrate how her students have substantially outpaced their peers. (EOG pass rate in math 75% versus 33% for school) Participants will learn key activities and how to implement them through the lens of emphasizing mathematical equality. We will make the case that focusing on this key idea functions as an “equalizer” that positively impacts student performance. We will provide teachers time to practice, play with, and process the ideas. They will leave with the physical and instructional tools to succeed. (Co-Presented with Jasmin Nabors)

2019 Keynote Speakers

Amy Lucenta

Co-Founder
Fostering Math
Practices

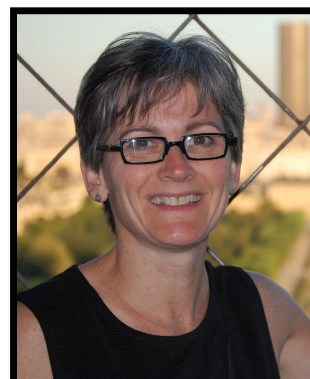


Biography:

Amy Lucenta, co-founder of Fostering Math Practices, has extensive K-12 mathematics experience with a focus on developing the standards for mathematical practice in each and every student. She supports teachers, districts, and educational collaborative organizations as they refine their curriculum and pedagogy to reflect current mathematics education research through professional development and coaching. A former middle school and high school teacher and elementary math coach, Amy recently worked as a secondary mathematics Clinical Teacher Educator for the Boston Teacher Residency Program. Amy is the co-author of *Routines for Reasoning: Fostering Mathematical Practices in All Students*, published by Heinemann. Follow Amy on Twitter @AmyLucenta

Grace Kelemanik

Co-Founder
Fostering Math
Practices



Biography:

Grace Kelemanik, co-founder of Fostering Math Practices, has more than 30 years of mathematics education experience. A frequent presenter at national conferences, her work focuses on fostering mathematical thinking practices in all students. She is a former urban high school mathematics teacher and Project Director at Education Development Center. Grace has also worked extensively with new and preservice teachers through the Boston Teacher Residency program. Grace is the coauthor of *Routines for Reasoning: Fostering the Mathematical Practices in All Students*. She is a mathematics education consultant and professional development provider. Follow Grace on Twitter @GraceKelemanik

Teach ALL Students to Think Like Mathematicians

Thursday, November 7

8:30 - 10:15

Guilford C

Implementing the Common Core Standards for Mathematical Practice can seem like a daunting task. Teachers have many questions -- What does it look like when students are using the practices? How do I build them into an already packed curriculum? What about students who struggle in math, how do I ensure that all of my students develop the practices? This session will address questions like these and offer a viable approach to placing the math practices at the center of math learning and doing for all students.

Routines for Reasoning Fostering SMPs in All Students in Grades K-5

Thursday, November 7

10:30 - 11:15

Auditorium II

Routines for Reasoning Fostering SMPs in All Students in Grades 6-12

Thursday, November 7

11:30 - 12:15

Auditorium II

Math practices are habits and habits are developed through routine. Contemplate then Calculate is a robust instructional routine designed to develop structural thinking (MP7) in all students. Participants will engage in the routine as math learners, unpack the routine, and discuss how it develops structural thinking and provides access to a wide range of learners. We will also discuss the types of tasks to sit inside the routine as well as strategies for weaving it into the math curriculum.

2019 Keynote Speakers



Ben Orlin

Author of
Math with Bad Drawings and
Change is the Only Constant

Biography:

Ben Orlin is the author of the books *Math with Bad Drawings* and *Change is the Only Constant*. His writing on mathematics and education has appeared in *The Atlantic*, *Popular Science*, *Slate*, *Vox*, and the *Los Angeles Times*. He has taught math to students from ages 11 to 18, in the US and the UK, and has spoken at colleges and universities across the US. Mathematician and BBC star Hannah Fry has described him as "terribly bad at drawing" (and also, more positively, as "fantastically clever and charming"). He finds teaching to be harder and more rewarding than any other kind of work, though he admits to having never tried many kinds of work, such as professional figure skating, or searching for buried treasure.

The State of Being Stuck

Thursday, November 7

12:30 - 2:15pm

Guilford C

To solve Fermat's Last Theorem, the mathematician Sir Andrew Wiles worked alone in his attic office for almost a decade. He emerged with a message to share: "learn to glory in the state of being stuck." In this cartoon-and-conversation session, we'll unpack Wiles' wisdom, look for ways to teach our students that joy - and perhaps try getting stuck ourselves.

2019 Keynote Speakers

José Luis Vilson

Middle School Teacher in NYC Public Schools
Co-Founder and Executive Director EduColor



Biography:

José Luis Vilson is a math educator for a middle school in the Inwood / Washington Heights neighborhood of New York, NY. He graduated with a bachelor's degree in computer science from Syracuse University and a master's degree in mathematics education from the City College of New York. He's also a committed writer, activist, web designer, and father.

His first solo project, *This Is Not A Test: A New Narrative on Race, Class, and the Future of Education*, was published by Haymarket Books in the Spring of 2014. He is the co-founder and executive director of **EduColor**, an coalition of teachers, parents, and other concerned citizens dedicated to the uplift of people of color in education. He is a National Board Certified Teacher and a Math for America Master Teacher.

He has served as a board member on the Board of Directors for the Center for Teaching Quality and the president emeritus of the Latino Alumni Network of Syracuse University. He writes regularly for Edutopia and Progressive Magazine, and has contributed to The New York Times, CNN.com, Education Week, Huffington Post, and El Diario / La Prensa NY. He has also been featured at PBS, Mashable, Idealist, Chalkbeat NY, TakePart, Mother Jones, Manhattan Times, and the Fusion.

He co-authored the book *Teaching 2030: What We Must Do For Our Students and Public Schools ... Now and In The Future* with Dr. Barnett Berry and 11 other accomplished teachers, and profiled in two other books: *Teacherpreneurs* (Berry, Byrd, Weider; 2013) and *Teaching with Heart* (Scribner, Intrator; 2014).

He was named one of GOOD Inc.'s GOOD100 in 2013 of leaders changing their worlds and an Aspen Ideas Scholar in 2013. He has also spoken at TEDxNYED, Education Writers Association Annual Conference, Netroots Nation, The US Department of Education, and the Save Our Schools March. His blog, TheJoseVilson.com, was named one of the top 25 Education Blogs by Scholastic, Education World, and University of Southern California Rossier School of Education's Teach 100.

Where Do We Belong? A Mathematics Education for All

Friday, November 8

8:30 - 10:15

Guilford C

What would it look like for all students to feel like they belong in our classrooms? This speech focuses on how we can offer new pathways to thinking about math through principles and pedagogy.

Doing The Work: Expanding Current Notions of Mathematical Mindsets

Friday, November 8

12:30 - 1:15

Guilford C

How can we further the conversation of belonging? This session incorporates discussions about the mathematics classroom where everyone feels like their voices are valued, and how we can transform our classrooms for and with students.

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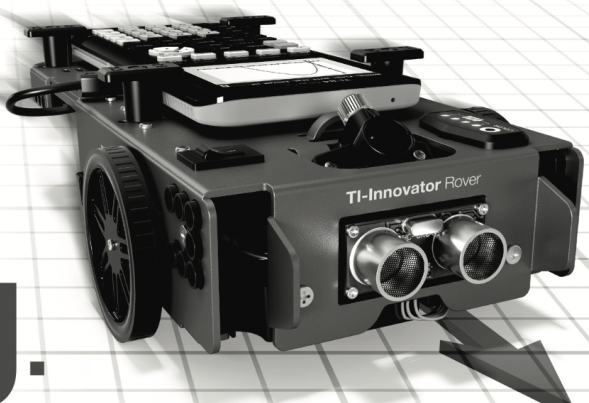


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When the wheels are
turning,
the students are
learning.



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2019 Featured Speakers

Featured Speakers – New to the 2019 Conference

Featured speakers, unlike Keynote Speakers, are North Carolina residents who have been a part of NCCTM and the Fall Conference for many years. The work of the featured speakers is powerful and often times extends beyond North Carolina. As such, the Conference and Program committee felt strongly about recognizing this powerful work being done “right here at home!” We hope you will take the time to attend the sessions of Featured Speakers. We also need your help in recognizing our own – to nominate a 2020 Featured Speaker please email you nomination to ncctm1@gmail.com.



June Blackwell

June L. Blackwell has taught High School Mathematics for over 32 years and Community College Math for 10 years. Currently, she is a High School classroom math teacher – predominately AP Calculus AB/BC & Honors Math 3, National Board Coach, National Board Scorer/ Assessor, Beginning Teacher Mentor, Mentor Coordinator, Power School Contact Person, frequent NCCTM Presenter (aka Humorous Algebra), and an avid Butterfly collector. June has been a workshop presenter at the SAS Institute for Algebra Readiness Summit, NC Success in Algebra Summer Institutes, Central & Eastern Regional Keynote Speaker, Continuous Improvement Conference Speaker, Vocational Conference Speaker – Curriculum Integration, Staff Development & DPI workshops on Math Curriculum.

June had an article published in the Centroid Magazine on Homework Techniques. She earned her Master’s Degree in Math Education from NC State University – Go Wolfpack! She has received numerous Awards and recognitions – Kenan Fellows, Eastern Regional Vice President of NCCTM -2004-2006, Wake County March Mentor Award, etc. June consistently and frequently seeks out new and innovative activities to keep the fun of learning Math Alive for all interested parties. She is well known for singing in the math classroom and incorporating ideas from any and all areas of life into her lessons.

Humorous Mindset - Ideas That Make A Difference

Friday, November 8

8:30 – 10:15

Imperial A

2019 Featured Speakers



Marta Garcia

Marta Garcia is an elementary mathematics specialist/coach with over 30 years of experience in teaching, coaching and facilitating professional learning. She currently works as a mathematics coach with a variety of school districts across the US, and teaches graduate courses focusing on mathematics leadership.

Marta has received the Presidential Award for Excellence in Mathematics and Science and the NCCTM Rankin Award for distinguished service in the area of mathematics teaching and learning. She has been a contributing researcher and author in two National Science Foundation projects.

Marta is interested in supporting learners to REIMAGINE math as vibrant, inclusive and accessible.

An Invitation for All How Do We Invite a Mathematical Mindset for Ourselves and Others?

Thursday, November 7

8:30 - 10:15

Imperial A



Vicki Jacobs

Vicki Jacobs is the Yopp Distinguished Professor of Mathematics Education at the University of North Carolina at Greensboro. She enjoys collaborating with teachers and researchers to explore children's mathematical thinking and instruction based on that thinking. She also has extensive experience facilitating professional development throughout the country and is particularly interested in long-term collaborations with teachers and school districts. Her fascination with children's thinking stems from her graduate studies at the University of Wisconsin-Madison where she worked on the Cognitively Guided Instruction (CGI) project. CGI introduced her to the power of using children's thinking as the foundation for high-quality mathematics instruction that capitalizes on the resources of every child, and she has embraced this approach throughout her work.

They've Given the Correct Answer, Now What?

Thursday, November 7

9:30 - 10:15

Imperial D

2019 Featured Speakers



Karen McPherson

Karen McPherson is a high school math coach for Buncombe County Schools. She provides professional development experiences aimed at increasing teacher content knowledge, supports teachers in implementing effective instructional practices, and identifies and develops quality resources. She has facilitated numerous workshops and sessions on College & Career Ready Math Standards, the Instructional Shifts, and aligned instruction. She is a National Board Certified Teacher and is a graduate from UNC Chapel Hill and Western Carolina University.

Routinely Leveraging the Math Practices

Friday, November 8

10:30 - 12:15

Guilford C



Paola Sztajn

Paola Sztajn is a professor of mathematics education, Provost Fellow, and the Associate Dean for Research and Innovation in the College of Education at North Carolina State University. Her research program focuses on elementary teachers' professional development in mathematics. Her over 80 published papers have appeared in journals such as American Educational Research Journal, Educational Researcher, Journal of Teacher Education, Journal for Research in Mathematics Education, Journal of Mathematics Teacher Education, Teaching and Teacher Education, and Teaching Children Mathematics. She has published an edited book with Teachers College Press and is the author of an upcoming book from Corwin Press. Paola has had continuous research funding for over 20 years and has been the Principal Investigator on projects totaling over \$26.5M. She served two terms as a program officer at National Science Foundation, member of the editorial board for the Journal for Research in Mathematics Education, chair for the Special Interest Group-Research in Mathematics Education from the American Educational Research Association, and Vice President for Advocacy, Equity and Research for the Association of Mathematics Teacher Educators.

Supporting Student Productive Engagement in Math Discourse

Thursday, November 7

8:30 - 9:15

Imperial D

2019 Featured Speakers



Kaneka Turner

Kaneka Turner is a teacher who serves as a coach and an elementary math specialist through independent consulting. She has a heart for access and equity which serve as the catalyst for her recent partnership with Illustrative Mathematics as a lead writer on the grade 4 writing team. She believes that everyone deserves the privilege of being a part of the "math party" and is committed to extending this invitation to as many as will accept.

An Invitation for All: How Do We Invite a Mathematical Mindset for Ourselves and Others?

Thursday, November 7

8:30 - 10:15

Imperial A



Jennifer Wilson

Jennifer enjoys learning alongside the *Illustrative Mathematics* community as a professional learning facilitator and writer. She is a Core Advocate and National Board Certified Teacher, and she has most recently taught and learned math with students and teachers in the Rankin County School District in Brandon, Mississippi. She is an instructor for TI's Teachers Teaching with Technology program and a recipient of the Presidential Award for Excellence in Mathematics and Science Teaching (2011). Jennifer thinks a lot about how we might slow down and savor learning math through questions, connections, and collaboration, and so she blogs at *Easing the Hurry Syndrome* and *The Slow Math Movement*. She tweets @jwilson828.

Mathematical Language Routines: Cultivating Conversation

Thursday, November 7

2:30 - 3:15

Imperial A

#SlowMath: Looking for and Making Use of Structure

Thursday, November 7

1:30 - 2:15

Imperial A

2019 Conference Schedule



NCCTM is moving to a completely digital schedule and program in 2020.

As such, the 2019 program book looks significantly different than in previous years for the conference schedule. The following pages include a conference overview. We encourage you to use these pages, alongside the digital app SCHED to make the most of your 2019 NCCTM Conference.

SCHED provides updated and detailed descriptions of sessions, links to handouts provided by the presenters (if provided), the ability to leave feedback, and increased interactive sorting features. SCHED will be kept up-to-date during the conference.

SCHED is available in the AppStore and Google Play. The conference website <https://2019ncctm49thannualfallconf.sched.com/> also contains the full schedule (and will stay live) with all uploaded materials- following the conference!



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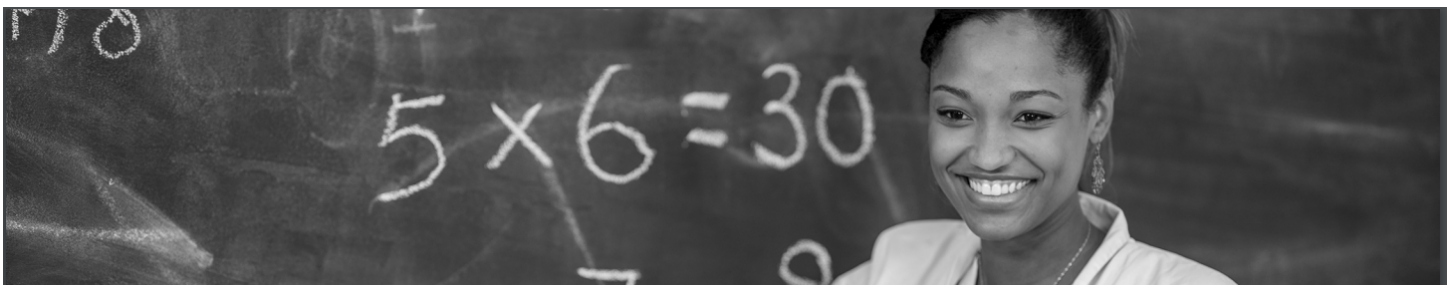
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We are pleased to support the North Carolina Council of Teachers of Mathematics Conference. Stop by our booth to meet with a CPM mentor teacher, see our materials, and request a preview.

Visit CPM.ORG/cpminfo or scan the QR code to get more information and view our conference sessions for the year.



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Thursday, November 7, 2019

A All (K-12)
 E Elementary Early (K-2)
 L Elementary Intermediate (3-5)
 M Elementary (K-5)
 N Elementary (K-6)
S Secondary All (6-12)
 C Secondary Middle (6-8)
 D Secondary Upper/High (9-12)
 U University

Sessions and Workshops

8:30am – 9:15am	A Creating Shifts in Math Classroom <i>Speakers: Dr. Hema Lalwani</i>	Blandwood
8:30am – 9:15am	A How Equitable Are You? <i>Speakers: Peter M. Eley</i>	Auditorium II
8:30am – 9:15am	A Let's Get Messy!!! Mathematical Modeling <i>Speakers: Jacqueline Orgain</i>	Biltmore B
8:30am – 9:15am	A NCCTM Mini-grants <i>Speakers: Joy McCormick</i>	Cedar A
8:30am – 9:15am	M Supporting Student Productive Engagement in Math Discourse <i>Speakers: Paola Sztajn</i>	Imperial D
8:30am – 9:15am	M Teacher Mindsets <i>Speakers: Leanne Daughtry</i>	Auditorium IV
8:30am – 9:15am	L Math Masters <i>Speakers: Johanna Hage Hassan, Holly Averette</i>	Oak C
8:30am – 9:15am	S Instructional Routines and Academic Safety <i>Speakers: Jennifer White</i>	Augusta A
8:30am – 9:15am	S Thriving in a Sea of Online Resources: Results Better than a Google Search <i>Speakers: Carolyn Spencer</i>	Turnberry
8:30am – 9:15am	C Don't Just Solve a Problem, Give Them the Tools to Create a Problem! <i>Speakers: Mike Swinson, Brittany Swinson</i>	Cedar B
8:30am – 9:15am	C DPI Updates 6-8 <i>Speakers: Tammy Lackey</i>	Auditorium III
8:30am – 9:15am	C Fraction Action <i>Speakers: Stephanie Bainbridge</i>	Morehead
8:30am – 9:15am	D NC Early Math Placement Testing - An Honest Snapshot of College Math Readiness! <i>Speakers: Ellen Hilgoe</i>	Oak B
8:30am – 9:15am	D Patterns Before Functions - The Real MVP <i>Speakers: Ashley Avis, Shannon Patton</i>	Pinehurst
8:30am – 9:15am	D Promoting Statistical Inference through Simulation <i>Speakers: Tim Hendrix</i>	Auditorium I
8:30am – 10:15am	A Association of Mathematics Teacher Educators (AMTE - NC) Meeting <i>Speakers: Allison McCulloch</i>	Colony C
8:30am – 10:15am	A Celebrate MELT Summer Institutes 20th Anniversary <i>Speakers: Michael J. Bosse, John Sevier, Ashley DeMarte, Emily Yontz</i>	Oak A
8:30am – 10:15am	A Fractal Geometry and A Mathematical Mindset <i>Speakers: Jane Craft Hudgins</i>	Carolina Theater
8:30am – 10:15am	A National Board Certification Renewal PLC <i>Speakers: Leigh Belford</i>	Meadowbrook
8:30am – 10:15am	A Teach ALL Students to Think Like Mathematicians <i>Speakers: Grace Kelemanik, Amy Lucenta</i>	Guilford C

8:30am – 10:15am	A	Utilizing Structures to Support Student Thinking K-12 <i>Speakers: Emily Elrod, Michele Cudd</i>	Imperial C
8:30am – 10:15am	M	Get Your Game On <i>Speakers: Bridget Ward</i>	Imperial E
8:30am – 10:15am	M	Something to Talk About <i>Speakers: Brian Bettis, Dr. Stephen Martin, Tamara Stamey</i>	Imperial F
8:30am – 10:15am	M	Yakety Yak - Please Talk Back! <i>Speakers: Mallory Hill, Rebekah Lonon</i>	Augusta B
8:30am – 10:15am	N	An Invitation for All: How Do We Invite a Mathematical Mindset for Ourselves and Others? <i>Speakers: Marta Garcia, Kaneka Turner</i>	Imperial A
8:30am – 10:15am	E	Teaching Math using the LEGO Brick <i>Speakers: Dr. Shirley A Disseler</i>	Tanglewood
8:30am – 10:15am	L	Climbing the Ladder to Success in Measurement <i>Speakers: Darlene Tate</i>	Imperial G
8:30am – 10:15am	L	Making Algebra Child's Play <i>Speakers: Darlene Williford</i>	Imperial B
8:30am – 10:15am	L	Taking Action with Fractions <i>Speakers: Stacy Wozny, Barbara Hill</i>	Pebble Beach
8:30am – 10:15am	S	Experience & Create Math Digital Escapes <i>Speakers: Kayla Chandler, Heather Davis, Maggie Kerner</i>	Imperial H
8:30am – 10:15am	S	What's the Image? <i>Speakers: Becky Caison</i>	Sand Piper
8:30am – 10:15am	C	Talk Moves To Promote Student Discourse <i>Speakers: Katie Ruff</i>	Arrowhead A
8:30am – 10:15am	C	Their Success Is Your Success <i>Speakers: James O'Neal Jr</i>	Tidewater
8:30am – 10:15am	D	Lessons from the 2019 AP Calculus Exam <i>Speakers: Stephen Davis</i>	Biltmore A
8:30am – 10:15am	D	The Sherlock Rover Mysteries: A Math Assessment Whodunit <i>Speakers: Julie Riggins, Adam Pennell, TI</i>	Colony B
9:30am – 10:15am		DPI Updates K-5 <i>Speakers: Denise Schulz</i>	Auditorium III
9:30am – 10:15am		They've Given the Correct Answer, Now What? <i>Speakers: Vicki Jacobs</i>	Imperial D
9:30am – 10:15am	A	NO Problem at All - Problem Based Learning for ALL <i>Speakers: Jacqueline Orgain</i>	Biltmore B
9:30am – 10:15am	M	Digital Individualized Standards Based Math Instruction <i>Speakers: Wayne Eichen, Ken Orgain</i>	Cedar A
9:30am – 10:15am	L	Engaging in Rich Tasks <i>Speakers: Melinda Schwartz Ed D</i>	Auditorium II
9:30am – 10:15am	S	How Do You Factor? <i>Speakers: Tim Hendrix</i>	Auditorium I
9:30am – 10:15am	S	Mathematical Treasure <i>Speakers: Jill Howard, Sydney Davis, Shelley Lowery</i>	Blandwood
9:30am – 10:15am	S	Orchestrating Productive Mathematical Discussions <i>Speakers: Julia Webster</i>	Oak C
9:30am – 10:15am	C	Conceptually Exploring Fraction Multiplication and Division <i>Speakers: Thomas Coleman</i>	Guilford A

9:30am – 10:15am	C	M3 : Maximizing Mathematical Mindsets <i>Speakers: Angela Porter, Nicia George, Nicole Shamberger</i>	Cedar B
9:30am – 10:15am	D	An Instructional Framework for PreCalculus <i>Speakers: Cyndi Edgington</i>	Pinehurst
9:30am – 10:15am	D	Exploring Knowledge for Teaching Quadratic Functions <i>Speakers: Stacey C. Zimmerman</i>	Auditorium IV
9:30am – 10:15am	D	Motivating At-Risk Males Using Real Life Math Applications <i>Speakers: Monica Currie</i>	Augusta A
9:30am – 10:15am	D	Restructuring Teaching Basic Math <i>Speakers: Dr. Gregory Battle</i>	Colony A
9:30am – 10:15am	D	Use of Spreadsheets to Teach and Apply Euler's Method <i>Speakers: Harvey H. Liles</i>	Oak B
10:30am – 11:15am	A	Happy Trails! - Creating Your Own Math Trail <i>Speakers: Sara Davis, Sarah Lefebvre</i>	Carolina Theater
10:30am – 11:15am	A	Number Lines They Should Be Used K-12 <i>Speakers: Mark Lunsford</i>	Biltmore B
10:30am – 11:15am	M	Engagement in the Elementary Math Classroom <i>Speakers: Laura Skinner</i>	Auditorium IV
10:30am – 11:15am	M	Making Time for Guided Math <i>Speakers: Katie Tuttle</i>	Auditorium III
10:30am – 11:15am	M	Routines for Reasoning Fostering SMPs in All Students in Grades K-5 <i>Speakers: Grace Kelemanik, Amy Lucenta</i>	Auditorium II
10:30am – 11:15am	M	Strategies for Engaging English Language Learners In Mathematics <i>Speakers: Alyson Boone Wyche</i>	Biltmore A
10:30am – 11:15am	N	The Presidential Awards: Information and Support <i>Speakers: Joseph Reaper</i>	Oak A
10:30am – 11:15am	E	Early Fraction Concepts <i>Speakers: Dr. Kayonna Pitchford, Dr. Jennifer Whittington</i>	Imperial C
10:30am – 11:15am	L	Problem Solved! <i>Speakers: Angela H. Kern</i>	Oak C
10:30am – 11:15am	L	What PART of Fractions Don't you Understand? <i>Speakers: Thom OBrien, Exhibitor</i>	Colony C
10:30am – 11:15am	S	Filling the Gap <i>Speakers: Tracey Shanks, Andrea Hardy</i>	Cedar C
10:30am – 11:15am	S	Finding Rigorous Math Resources in an Over Populated Internet? <i>Speakers: Joanne N. Whitley</i>	Colony A
10:30am – 11:15am	S	Investigative Learning in High School Math <i>Speakers: Bethany Furr</i>	Imperial D
10:30am – 11:15am	C	Tech Tools for the Middle School Math Classroom <i>Speakers: Samantha Haislip, Meagan Walters</i>	Guilford A
10:30am – 11:15am	C	What in the World is Going On? <i>Speakers: Nicia George, Angela Porter, Nicole Shamberger</i>	Cedar B
10:30am – 11:15am	D	Co-Teaching Success <i>Speakers: Shelly Lemos, Malik Richardson</i>	Augusta A
10:30am – 11:15am	D	Free Problem Posing and the Impact Mathematics Students <i>Speakers: Michael J. Bosse, John Sevier, Anthony Fernandes</i>	Oak B
10:30am – 11:15am	D	How Desmos Has Changed How We Teach Mathematics <i>Speakers: Christi R Edwards, Jennifer Farmer</i>	Morehead

10:30am – 11:15am	D	Meeting Digital Competencies in High Need High School Mathematics <i>Speakers: Denise Johnson, Ebony Jason, Jonathan Stowe, Charita Ward, Raketa Thomas</i>	Augusta B
10:30am – 12:15pm	A	Ideas from Future Teachers: A Poster Session <i>Speakers: Allison McCulloch</i>	Imperial B
10:30am – 12:15pm	A	Initiating Critical Conversations in Mathematics Teaching and Learning <i>Speakers: Robert Berry</i>	Guilford C
10:30am – 12:15pm	A	TIPS on T(rauma) I(nformed) P(ractices) <i>Speakers: Cordelia Breiner, Ryan Bracken</i>	Pebble Beach
10:30am – 12:15pm	M	Engaging Mathematical Routines and Procedures in K-6 Classroom <i>Speakers: Margo Hale, Rebekah Dodd</i>	Imperial E
10:30am – 12:15pm	M	Guided Math in Action <i>Speakers: Dr. Nicki Newton</i>	Turnberry
10:30am – 12:15pm	M	Math Games Build Students' Math Mindset <i>Speakers: John Felling</i>	Meadowbrook
10:30am – 12:15pm	M	Show Us! Representations and Mathematical Understanding <i>Speakers: Marta Garcia</i>	Imperial A
10:30am – 12:15pm	M	Turning Your Trash into Treasure <i>Speakers: Dr. Kelly Ficklin, Bridget Ward</i>	Imperial F
10:30am – 12:15pm	L	But Why? <i>Speakers: Dawne Coker</i>	Tidewater
10:30am – 12:15pm	L	Using Exploragons and 2-D Shapes to Create Hands-On Understanding of Geometric Concepts <i>Speakers: Pam Smith</i>	Imperial G
10:30am – 12:15pm	S	New Teachers, Your Students and Math Mindsets <i>Speakers: Wayne A. Williams, Mitchell Lebowitz</i>	Blandwood
10:30am – 12:15pm	S	Promoting Productive Discourse in the Classroom <i>Speakers: Tim Hendrix</i>	Auditorium I
10:30am – 12:15pm	C	Do You Know The Muffin Man? Exploring Ratio and Double Number Lines <i>Speakers: Katie Ruff</i>	Arrowhead A
10:30am – 12:15pm	C	Investigating Illuminating Elements of Number Theory <i>Speakers: Eric M. O'Brien</i>	Imperial H
10:30am – 12:15pm	C	STEM-ulating Activities for People and the Planet <i>Speakers: Dr. Shirley Smith</i>	Cedar A
10:30am – 12:15pm	C	Teaching Math Using the LEGO Brick 6-8 <i>Speakers: Dr. Shirley A Disseler</i>	Tanglewood
10:30am – 12:15pm	D	... And Now We are Expected to Teach Financial Concepts! <i>Speakers: Becky Caison</i>	Sand Piper
10:30am – 12:15pm	D	The Pet Car Alarm Project <i>Speakers: Adam Pennell, TI, Julie Riggins</i>	Colony B
11:30am – 12:15pm		DPI District Leaders Session <i>Speakers: Lisa Ashe, Tammy Lackey, Joseph Reaper, Denise Schulz</i>	Auditorium III
11:30am – 12:15pm	A	Project Management Classroom Initiative <i>Speakers: Christi R Edwards</i>	Morehead
11:30am – 12:15pm	M	A Lesson Plan is Not Lesson Planning <i>Speakers: Alexandra Humphries, Katherine Baker, Stefanie Bordeaux</i>	Biltmore A
11:30am – 12:15pm	M	A Math Talk Technique for the Elementary Classroom <i>Speakers: Anna Thorp, Reema Alnizami, Jessica Dula, Elizabeth Scott</i>	Carolina Theater
11:30am – 12:15pm	M	Elementary Mathematics Add-On Panel <i>Speakers: Shelby Morge, Tracy Hargrove</i>	Auditorium IV

11:30am – 12:15pm	M	Engaging Students with Math Read Alouds <i>Speakers: Lesley Holley</i>	Colony A
11:30am – 12:15pm	M	Exploring Properties Of Operations Through Number Talks <i>Speakers: Annette Johnston</i>	Biltmore B
11:30am – 12:15pm	M	Working Out the Kinks of Math Workshop <i>Speakers: Busola Stackhouse, Ni’Kia Graham</i>	Guilford A
11:30am – 12:15pm	L	Can I Stay, Can I Participate, Do I have to Leave <i>Speakers: Karen Walker</i>	Oak C
11:30am – 12:15pm	L	Teaching Fractions for Understanding <i>Speakers: Donna Boyles</i>	Imperial C
11:30am – 12:15pm	S	Routines for Reasoning Fostering SMPs in All Students in Grades 6-12 <i>Speakers: Grace Kelemanik, Amy Lucenta</i>	Auditorium II
11:30am – 12:15pm	C	Mastering the Curriculum <i>Speakers: Rhiannon Kriessler, Whitney Honeycutt, Danyah Hill, Jaime Cassada</i>	Cedar B
11:30am – 12:15pm	C	Math in the Middle – Working with Middle School Students <i>Speakers: Thom OBrien, Exhibitor</i>	Colony C
11:30am – 12:15pm	D	Anticipating Students’ Approaches to Math Tasks <i>Speakers: F. Paul Wonsavage, Holt Wilson, Emily Hare, Lauren Baucom</i>	Imperial D
11:30am – 12:15pm	D	Beyond the Test: Alternative Math Assessments <i>Speakers: Maureen Grady</i>	Augusta B
11:30am – 12:15pm	D	Modeling Geometric Probability for Algebra/Precalculus Students <i>Speakers: Ryan Pietropaolo</i>	Augusta A
11:30am – 12:15pm	D	New Discrete? <i>Speakers: Wendy Srinivasan</i>	Oak A
11:30am – 12:15pm	D	Using Writing to Assess Conceptual Understanding <i>Speakers: Jan Mays</i>	Oak B
12:30pm – 1:15pm	A	Parent Conferences - No Need to Fear <i>Speakers: John Pritchett</i>	Biltmore A
12:30pm – 1:15pm	A	Powerful Coaching Strategies that Support Math Teachers <i>Speakers: Ginger Rhodes</i>	Imperial A
12:30pm – 1:15pm	A	The Mindset of a Math Coach <i>Speakers: Alicia Conklin, Krystle Smith, Patrick Kosal</i>	Arrowhead A
12:30pm – 1:15pm	M	Class Dojo: More Than Just a Behavior Tool <i>Speakers: Kristina Kinlaw</i>	Auditorium IV
12:30pm – 1:15pm	M	Read A Little Do A Little (A Problem Solving Strategy for ALL) <i>Speakers: Heidi M. Criswell</i>	Imperial E
12:30pm – 1:15pm	L	Making Sense of Fraction Models and Operations in 4th and 5th Grade <i>Speakers: Kristine Schmitt, Meg McKee</i>	Meadowbrook
12:30pm – 1:15pm	L	Sharing The Joy of Algebra With Our Young Learners <i>Speakers: Carly Albee, Meredith Stanley</i>	Imperial C
12:30pm – 1:15pm	S	Achieving Numeracy Through North Carolina History <i>Speakers: Robert L Kimball Jr</i>	Cedar A
12:30pm – 1:15pm	S	Closure: Making Every Minute Count <i>Speakers: Krista Holstein</i>	Auditorium II
12:30pm – 1:15pm	S	Student Voice Matters <i>Speakers: Hannah Jimenez, Cordelia Breiner</i>	Pinehurst
12:30pm – 1:15pm	C	Helping Students Succeed in Algebra through Manipulatives <i>Speakers: Kevin Dykema</i>	Guilford A

12:30pm – 1:15pm	C	I Can't Do That . . . Yet! <i>Speakers: Ron Preston, Alyssa Jernigan</i>	Augusta A
12:30pm – 1:15pm	C	Spiraling the Curriculum <i>Speakers: Jaime Cassada, Rhiannon Kriessler, Whitney Honeycutt, Danyah Hill</i>	Turnberry
12:30pm – 1:15pm	C	The Power of Patterns with Equations <i>Speakers: Christine King</i>	Cedar C
12:30pm – 1:15pm	D	Dipole Vectors: A Chemistry and Pre-Calculus Integration <i>Speakers: Alli George</i>	Oak C
12:30pm – 2:15pm	A	Developing Teachers' Growth Mindsets <i>Speakers: John Sevier, Michael J. Bosse, Ashley DeMarte, Emily Yontz</i>	Oak A
12:30pm – 2:15pm	A	Help! I Never Taught Math So How Do I Support It? <i>Speakers: Laura Davis</i>	Colony A
12:30pm – 2:15pm	A	Math Teachers' Circle Wrangle <i>Speakers: Nathan Borchelt, Kim Johnson, April Mayes, Charity Jamison, Scott Freeman, Nishelle Henson</i>	Imperial B
12:30pm – 2:15pm	A	What if We Did the Opposite?: Vertical Non-Permanent Surfaces and Visible Random Grouping <i>Speakers: Joel Sellers</i>	Pebble Beach
12:30pm – 2:15pm	M	Math on the Go <i>Speakers: Shannon Chaffin, Stella Brewer</i>	Imperial F
12:30pm – 2:15pm	M	Place Value Math Games <i>Speakers: John Felling</i>	Morehead
12:30pm – 2:15pm	M	Walk the Number Line for Research-Based Results! <i>Speakers: Kim Sutton</i>	Augusta B
12:30pm – 2:15pm	M	Why We Need to Stop Using Key Words! <i>Speakers: Ann Elise Record</i>	Biltmore B
12:30pm – 2:15pm	L	Equations to Explore Fraction Relationships <i>Speakers: Vicki Jacobs, Joan Case, Amy Hewitt</i>	Imperial D
12:30pm – 2:15pm	L	Say What... Talk Math To Me <i>Speakers: Mary Shaw-Lewis</i>	Tanglewood
12:30pm – 2:15pm	L	Using Bar Models to Create Hands-On Understanding of Problems <i>Speakers: Pam Smith</i>	Imperial G
12:30pm – 2:15pm	S	Project Based Learning in the Math Classroom <i>Speakers: Lisa Alcott, Caren Williams, Lindsey Cahoon</i>	Sand Piper
12:30pm – 2:15pm	S	Standards Based Grading <i>Speakers: Jennifer Johnson, Susan Quinn, Abby Adcock, Ally Gniadek</i>	Imperial H
12:30pm – 2:15pm	S	The State of Being Stuck <i>Speakers: Ben Orlin</i>	Guilford C
12:30pm – 2:15pm	C	Can You See the Math? <i>Speakers: Shelly Gibson</i>	Carolina Theater
12:30pm – 2:15pm	C	Creating Safe Spaces For Students to "Bravely Do Math" <i>Speakers: Cindy Farmer</i>	Cedar B
12:30pm – 2:15pm	C	Habits of Mind: Empowering the Middle School Mathematician <i>Speakers: Jessica Vernon</i>	Colony B
12:30pm – 2:15pm	D	Concepts Before Procedures: A Quadratic Task <i>Speakers: F. Paul Wonsavage</i>	Tidewater
12:30pm – 2:15pm	D	DPI Updates 9-12 <i>Speakers: Lisa Ashe, Joseph Reaper</i>	Auditorium III

12:30pm – 2:15pm	D	Math Language Routines in High School <i>Speakers: Karen McPherson</i>	Auditorium I
12:30pm – 2:15pm	D	Music = Math: Exploring the Chromatic Scale With Exponentials and Guitar <i>Speakers: Jason Willcoxon</i>	Colony C
12:30pm – 2:15pm	D	What Can Cabri Jr. Do For You? <i>Speakers: Andy Blevins</i>	Blandwood
1:30pm – 2:15pm	A	Assessment: Key to Motivation, Confidence, Growth <i>Speakers: Drew Corley</i>	Arrowhead A
1:30pm – 2:15pm	A	Winner! Winner! <i>Speakers: Laurie Merlo</i>	Oak B
1:30pm – 2:15pm	M	Quick and Easy Number Talks <i>Speakers: Anna Hughes, Lizzie Tucker</i>	Auditorium IV
1:30pm – 2:15pm	M	Successfully Developing Fact Fluency <i>Speakers: Kevin Dykema</i>	Guilford A
1:30pm – 2:15pm	L	It All Adds Up- Targeting Foundational Gaps to Maximize Student Success <i>Speakers: Cydney Kramer, Kelsey Ripley, Padgett Vaughn</i>	Cedar A
1:30pm – 2:15pm	L	Math SOS: Engaging Strategies for Math Instruction <i>Speakers: Jennifer Tatum, Emily Fagan</i>	Meadowbrook
1:30pm – 2:15pm	L	Using Your T.I.M.E Wisely <i>Speakers: Patricia Wells, Amber Wise</i>	Imperial E
1:30pm – 2:15pm	S	Analyzing Student Work with your Team <i>Speakers: Emily Hare</i>	Oak C
1:30pm – 2:15pm	S	Is this Vending Machine Functioning?! <i>Speakers: Kayla Chandler, Charity Cayton, James Callahan</i>	Imperial C
1:30pm – 2:15pm	S	Unite Schools & Districts: We're ALL Math People! <i>Speakers: Rebecca Welch</i>	Auditorium II
1:30pm – 2:15pm	S	Watch Your Language! <i>Speakers: John Pritchett</i>	Biltmore A
1:30pm – 2:15pm	C	Maybe You Don't Need to Teach the Procedure <i>Speakers: Christine King</i>	Cedar C
1:30pm – 2:15pm	C	Real (or Imaginary) Contexts: More than a 'Hook' <i>Speakers: Luke Reinke, Jerold Griggs, Michelle Stephan</i>	Turnberry
1:30pm – 2:15pm	D	#SlowMath: Looking for and Making Use of Structure <i>Speakers: Jennifer Wilson</i>	Imperial A
1:30pm – 2:15pm	D	Engaging High School Students with Desmos Teacher Activities <i>Speakers: Edgar Zamora</i>	Augusta A
1:30pm – 2:15pm	D	Using Statistics to Facilitate Critical Conversations: <i>Speakers: Lauren Baucom</i>	Pinehurst
2:30pm – 3:15pm	A	CoPlanning: Working Strategically with Colleagues <i>Speakers: Charity Cayton, Maureen Grady, Joseph Reaper</i>	Auditorium III
2:30pm – 3:15pm	A	Math Fair Fun <i>Speakers: Sumer Robinson</i>	Oak C
2:30pm – 3:15pm	A	Using Census Data to Inspire Young Learners with Math Concepts <i>Speakers: Dilip Barman</i>	Colony A
2:30pm – 3:15pm	M	"Rolling Through the Standards" <i>Speakers: Pattie Martin, Sarah Johnson</i>	Imperial G
2:30pm – 3:15pm	M	Authentic Assessment with Problem posing <i>Speakers: Wendy Lewis</i>	Turnberry

2:30pm – 3:15pm	M	Online, Self-Paced Mathematics Micro-Credentials <i>Speakers: Lisa Thompson</i>	Arrowhead A
2:30pm – 3:15pm	M	The Missing Link: Connecting Representations <i>Speakers: Erin Hone, Molly Kearns</i>	Imperial H
2:30pm – 3:15pm	L	Developing Number Sense among Elementary Students <i>Speakers: Lindley Guri</i>	Meadowbrook
2:30pm – 3:15pm	L	Math Literacy Library: Reading Our Way to the Meaning of Math <i>Speakers: Amy White, Taylor Pope</i>	Carolina Theater
2:30pm – 3:15pm	L	Shake Up Your 3rd-5th Grade Math Classes! <i>Speakers: John Felling</i>	Morehead
2:30pm – 3:15pm	S	Bisquick® Can Kill You and Other Fun, but WRONG, Facts! <i>Speakers: Colleen Watson</i>	Imperial C
2:30pm – 3:15pm	S	Who said math class had to be boring? <i>Speakers: Camilia Smith, Amber Spargo</i>	Imperial D
2:30pm – 3:15pm	S	You Khan Do It! <i>Speakers: Aymee Tiffany</i>	Cedar C
2:30pm – 3:15pm	C	Activities to Encourage Middle School Students to Discuss Math <i>Speakers: Lauren Blakefield, Lindsay Paylor</i>	Guilford A
2:30pm – 3:15pm	C	Making a Worksheet More than a Worksheet! <i>Speakers: Danielle Flores</i>	Cedar B
2:30pm – 3:15pm	C	Mathcounts: A Status Update. <i>Speakers: David Phipps, Marc Worth</i>	Cedar A
2:30pm – 3:15pm	C	What You Think Matters: Raising Our Expectations <i>Speakers: Teresa Morton</i>	Pinehurst
2:30pm – 3:15pm	D	Incorporating Reading & Writing Strategies in Secondary Mathematics <i>Speakers: Sarah Joyner</i>	Augusta A
2:30pm – 3:15pm	D	Mathematical Language Routines: Cultivating Conversation <i>Speakers: Jennifer Wilson</i>	Imperial A
2:30pm – 3:15pm	D	Mathematical Puzzle Program – Join the Fun! <i>Speakers: Laura Tinney, Julia Webster</i>	Oak B
2:30pm – 3:15pm	D	MVP in the Math 3 classroom <i>Speakers: Sandy Childrey</i>	Biltmore A
2:30pm – 4:15pm	A	#sketchnotEDU: Sketchnoting in Math Class <i>Speakers: Carolyn Spencer</i>	Colony B
2:30pm – 4:15pm	A	Using Your Student Data to Inform Equity Context <i>Speakers: Peter M. Eley</i>	Imperial B
2:30pm – 4:15pm	M	Making Sense of Operations and Making Connections Across the Curriculum <i>Speakers: Terry Rose</i>	Imperial E
2:30pm – 4:15pm	M	Marvelous Math Club: Equitable, Asset-Based Pedagogy <i>Speakers: Marta Alcala-Williams, Sam Kaplan, Jeannie Curtis, Paul Garrity</i>	Colony C
2:30pm – 4:15pm	M	Math Running Records and Changing Math Culture <i>Speakers: Ann Elise Record</i>	Biltmore B
2:30pm – 4:15pm	M	Teaching Math through Tasks and Discussion <i>Speakers: Rachel Marcus, Jamie House, Katie Minor</i>	Pebble Beach
2:30pm – 4:15pm	E	Building Strong Number Sense for Primary Peeps! <i>Speakers: Kim Sutton</i>	Augusta B
2:30pm – 4:15pm	L	Differentiating for More Students without More Work <i>Speakers: Meredith Stanley</i>	Blandwood

2:30pm – 4:15pm	L	Mathematical Mindsets for Understanding Fractions <i>Speakers: Eric M. O'Brien</i>	Auditorium I
2:30pm – 4:15pm	S	Can You Breakout? <i>Speakers: Emily Myers</i>	Imperial F
2:30pm – 4:15pm	S	Using Unit 0 to Establish Math Mindset Culture <i>Speakers: Krystal Strader</i>	Tanglewood
2:30pm – 4:15pm	S	Whose Ideas Matter: Pushing Past Low Floors, High Ceilings, and Wide Walls <i>Speakers: Ashley Avis, Lauren Baucom</i>	Auditorium IV
2:30pm – 4:15pm	C	Open Up Resources Math 6-8 Math Lesson Live <i>Speakers: Sara B. Vaughn</i>	Sand Piper
2:30pm – 4:15pm	D	Projects that Work <i>Speakers: Fred A. Coon IV</i>	Tidewater
2:30pm – 4:15pm	D	So, You Think You Know Infinity? <i>Speakers: Michael J. Bosse, William J. Cook, Ashley DeMarte, Emily Yontz</i>	Oak A
3:30pm – 4:15pm	A	Biz Kid\$: Financial Edu-tainment <i>Speakers: Keri Reid</i>	Arrowhead A
3:30pm – 4:15pm	A	Collaborative Coaching <i>Speakers: Teresa Morton</i>	Pinehurst
3:30pm – 4:15pm	A	Next Step to Inclusion - Plan, Execute, Achieve <i>Speakers: Amanda Thompson</i>	Carolina Theater
3:30pm – 4:15pm	A	Rolling Into a New Mathematical Reality with Sphero <i>Speakers: Hannah Jimenez, Cordelia Breiner</i>	Imperial A
3:30pm – 4:15pm	M	Dash in Math Class! <i>Speakers: Sarah Emmerich, Kelly Williamson, Jessica Manning</i>	Turnberry
3:30pm – 4:15pm	M	Using Launch, Explore, Discuss Lesson Frameworks to Develop Growth Mindsets <i>Speakers: Leigh Belford</i>	Imperial H
3:30pm – 4:15pm	E	Shake Up Your K-2 Math Classes! <i>Speakers: John Felling</i>	Morehead
3:30pm – 4:15pm	L	Math Stations <i>Speakers: Nikki Stamey, Christina Baker</i>	Meadowbrook
3:30pm – 4:15pm	S	ALL Students can be MATHLETES <i>Speakers: Don Rogers</i>	Cedar C
3:30pm – 4:15pm	S	Can You Crack the Code? <i>Speakers: Heather Davis, Maggie Kerner, Kayla Chandler</i>	Imperial C
3:30pm – 4:15pm	S	Duals and Hypercubes: Fun in 3 and higher dimensions <i>Speakers: Charles Wallis</i>	Oak C
3:30pm – 4:15pm	S	Fractals Rock! <i>Speakers: Shannon Patton</i>	Colony A
3:30pm – 4:15pm	S	Mathematics and Emotional Disabilities <i>Speakers: Scott Williams</i>	Oak B
3:30pm – 4:15pm	C	ASSISTments - How to Include Useful, Concrete Data in Conversations with Students <i>Speakers: Brian Story</i>	Auditorium III
3:30pm – 4:15pm	C	Student Agency = Student Success <i>Speakers: E.J. Elgin</i>	Cedar A
3:30pm – 4:15pm	D	2019 AP Calculus Exam and Grading <i>Speakers: Ken Collins</i>	Biltmore A
3:30pm – 4:15pm	D	Geometry: Formal Proofs About Incenter and Inscribed Circle of a Triangle <i>Speakers: Muammer Kurt</i>	Augusta A

3:30pm – 4:15pm	D What's In Your EOC/ACT/SAT Mathematical Tool Kit? <i>Speakers: Jeffrey J. Steckroth</i>	Imperial D
3:30pm – 4:15pm	U Passing the Elementary Math CKT - 7803 test <i>Speakers: C.E. Davis</i>	Cedar B
3:30pm – 4:15pm	U Using Dice to Explain the Central Limit Theorem <i>Speakers: Sandi Mills</i>	Guilford A
4:30pm – 6:00pm	A NCCTM Awards Celebrations	Guilford C

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We are Moving!

50th Annual NCCTM Fall Conference

November 12 & 13, 2020

Winston-Salem, NC

Stop by the Winston-Salem Convention Booth (501 and 503) or the NCCTM Booths (201, 203, 205 and 207) to learn more about our NEW LOCATION in 2020!

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Friday, November 8, 2019

A All (K-12)
 E Elementary Early (K-2)
 L Elementary Intermediate (3-5)
 M Elementary (K-5)
 K K-8
S Secondary All (6-12)
 C Secondary Middle (6-8)
 D Secondary Upper/High (9-12)
 U University

Sessions and Workshops

8:30am – 9:15am	A	A Mathematical Mindset Begins with You! <i>Speakers: Sonja Collins, Tomay Gowens</i>	Sand Piper
8:30am – 9:15am	A	Creating a STEM Strong School Year to Deepen Math Learning <i>Speakers: Sara Hinsley, Elizabeth Venn</i>	Arrowhead A
8:30am – 9:15am	A	Let's Give Them Something to Talk About <i>Speakers: Stacy Wozny</i>	Augusta B
8:30am – 9:15am	A	"Struggle" Can Be a Positive Word <i>Speakers: Kara Root</i>	Oak B
8:30am – 9:15am	M	An Afrocentric Approach to Elementary Mathematics <i>Speakers: Dawne Coker, Tanya Hudson</i>	Auditorium II
8:30am – 9:15am	M	Developing a Deep Understanding of Place Value <i>Speakers: Tracy Hargrove</i>	Biltmore A
8:30am – 9:15am	M	Simple Centers, Seriously? <i>Speakers: Kevin Dykema</i>	Biltmore B
8:30am – 9:15am	S	Are We All in Alignment? <i>Speakers: Wendy Srinivasan</i>	Oak C
8:30am – 9:15am	S	Engaging Strategies That Work for Beginners <i>Speakers: Mitchell Lebowitz, Wayne Williams</i>	Cedar B
8:30am – 9:15am	C	ASSISTments - How to Share Data with Your Students <i>Speakers: Brian Story</i>	Augusta A
8:30am – 9:15am	C	Finding Pythagoras <i>Speakers: Robin Barbour</i>	Guilford A
8:30am – 9:15am	C	Middle School Math Stations <i>Speakers: Matt McPherson</i>	Meadowbrook
8:30am – 9:15am	D	Know Your Limits. <i>Speakers: Elizabeth Shepard</i>	Colony C
8:30am – 9:15am	D	NC (New) Discrete Math: Instructional Framework and Resources <i>Speakers: Christina Pennington, Gayle Scott, Todd Rackowitz, Holt Wilson, Allison McCulloch</i>	Auditorium IV
8:30am – 9:15am	U	Writing to Learn for Critical Thinking in STEM <i>Speakers: Denise Bauer, Kathleen Fick</i>	Cedar C
8:30am – 10:15am		Where Do We Belong? A Mathematics Education for All <i>Speakers: Jose Vilson</i>	Guilford C
8:30am – 10:15am	A	After the PD's Over: Providing Effective Support for Teachers <i>Speakers: Carolyn Spencer</i>	Imperial G
8:30am – 10:15am	A	How to make Math fun through STEM activities? <i>Speakers: Felix Nagy-Lup</i>	Imperial B
8:30am – 10:15am	A	Mathematics for All: Moving Towards Cultural Proficiency <i>Speakers: Lisa Ashe, Denise Schulz</i>	Auditorium III
8:30am – 10:15am	A	On the Intersection of Equity and the Standards <i>Speakers: Rolanda Baldwin</i>	Pinehurst

8:30am – 10:15am	A	The Stories We Tell: Math, Race, Bias, and Opportunity <i>Speakers: Valerie Faulkner</i>	Imperial D
8:30am – 10:15am	M	Failing to Plan is Planning to Fail <i>Speakers: Ruth Harbin Miles</i>	Carolina Theater
8:30am – 10:15am	M	Mindset Activities! <i>Speakers: Marilyn Preddy</i>	Colony B
8:30am – 10:15am	M	Turn That Teaching Model Upside Down! <i>Speakers: Laura Stockham, Naomi Porter</i>	Imperial H
8:30am – 10:15am	M	Unpacking Math Standards for Effective and Engaging Instruction <i>Speakers: Clarke Lewis, Olivia Williamson, Aliyah Ruffin, Nicholas Joyner</i>	Tidewater
8:30am – 10:15am	E	Counting is more than 1,2,3 <i>Speakers: Dr. Nicki Newton</i>	Turnberry
8:30am – 10:15am	L	Data Analysis 101 <i>Speakers: Robyn Hobson</i>	Imperial C
8:30am – 10:15am	L	Making Intentional Equity as Routine as Attendance <i>Speakers: Kaneka Turner</i>	Blandwood
8:30am – 10:15am	L	Mathematics - It is a Second Language! <i>Speakers: Sheila Brookshire</i>	Pebble Beach
8:30am – 10:15am	S	Numbas: Creating Online e-assessments <i>Speakers: T. Wayne Young, Sherry Autry</i>	Morehead
8:30am – 10:15am	S	Promoting Student Ownership with Data Reflections <i>Speakers: Krystal Strader</i>	Colony A
8:30am – 10:15am	C	Mathcation- Take A Vacation From The Same Old Math Routine <i>Speakers: Stephanie Bainbridge</i>	Imperial E
8:30am – 10:15am	C	What's Your Image? Transformations Using the TI-84 Plus <i>Speakers: Margaret Bambrick, Ruth Casey</i>	Imperial F
8:30am – 10:15am	D	Advanced Algebra with Financial Applications: A Perfect 3rd/4th Year Course <i>Speakers: Richard Sgroi</i>	Cedar A
8:30am – 10:15am	D	Humorous Mindset - Ideas That Make A Difference <i>Speakers: June Blackwell</i>	Imperial A
8:30am – 10:15am	D	New NC Math 4: Instructional Framework & Resources <i>Speakers: Chase Tuttle</i>	Auditorium I
8:30am – 10:15am	D	Strategies for ACT Success <i>Speakers: Becky Caison</i>	Tanglewood
9:30am – 10:15am	A	Building Digital Portfolios <i>Speakers: Tomay Gowens, Sonja Collins</i>	Sand Piper
9:30am – 10:15am	A	Necessity of Experiential Diversity Training <i>Speakers: Cristina Gillard</i>	Oak B
9:30am – 10:15am	M	Manipulatives, Real and Virtual: Teaching the Standards <i>Speakers: Kevin Dykema</i>	Biltmore B
9:30am – 10:15am	M	Rethinking Math Culture: Proven Ways to Develop a Mathematical Mindset <i>Speakers: Elizabeth Venn, Sara Hinsley</i>	Biltmore A
9:30am – 10:15am	M	The Struggle is Real: Productive Struggles to Connections <i>Speakers: Natalie Vandeventer, Laura Chamblee</i>	Augusta B
9:30am – 10:15am	L	Unleashing the Power of a Mathematical Mind <i>Speakers: Lisa Souther</i>	Meadowbrook
9:30am – 10:15am	S	Battle it out with WODB <i>Speakers: Nina Bailey, Kristen Fye</i>	Auditorium II

9:30am – 10:15am	S	Free Resources for Personalization Using Quantiles <i>Speakers: Alexis Moore, Will McGowan</i>	Oak C
9:30am – 10:15am	S	Ideas for Culturally Relevant Mathematics Instruction <i>Speakers: Shelby Morge</i>	Colony C
9:30am – 10:15am	S	Rediscovering Jeopardy! <i>Speakers: Malik Richardson</i>	Cedar B
9:30am – 10:15am	C	Motivating and Engaging Middle Schoolers <i>Speakers: Courtney Evans</i>	Guilford A
9:30am – 10:15am	D	Engaging Students with Career Mathematics <i>Speakers: Jay Martin, Tamara Ormandy</i>	Augusta A
9:30am – 10:15am	D	Programming the TI-84 to Promote Algebraic Thinking <i>Speakers: Jeffrey J. Steckroth</i>	Auditorium IV
9:30am – 10:15am	D	Standard Based Grading <i>Speakers: Whitney Nolan, Marie Vrablic</i>	Cedar C
10:30am – 11:15am	A	Integrating UbD and the Brain in Math <i>Speakers: Andrea Hardy, Tracey Widmann</i>	Arrowhead A
10:30am – 11:15am	A	The "Mindset" in Mathematical Mindset <i>Speakers: Christian Felton</i>	Augusta B
10:30am – 11:15am	M	Effective Strategies for Using Blending Learning in Your Classroom <i>Speakers: Calysta Castillo, Mackenzie Marlowe, Kate Cooper</i>	Imperial G
10:30am – 11:15am	M	Equality and Equity in an Underfunded School: How High Expectations Impact Outcomes <i>Speakers: Jasmin Nabors, Valerie Faulkner</i>	Imperial D
10:30am – 11:15am	M	Make Math Popping with BrainPOP <i>Speakers: Tomika Altman</i>	Morehead
10:30am – 11:15am	M	Personalized Learning using Quantile Measures <i>Speakers: Alexis Moore</i>	Cedar A
10:30am – 11:15am	L	Making Sense of Multiplication and Division Models in 4th and 5th Grade <i>Speakers: Meg McKee, Kristine Schmitt</i>	Meadowbrook
10:30am – 11:15am	S	Stretch and Compress: Effective Differentiation for Students <i>Speakers: Tiffany Fele, Angelica Davis</i>	Biltmore A
10:30am – 11:15am	S	The Power of Desmos in a Mathematics Classroom <i>Speakers: Jacqueline Orgain</i>	Oak C
10:30am – 11:15am	S	We Just Crossed the River... Now What? <i>Speakers: Mike Swinson, Ryne Cooper</i>	Cedar B
10:30am – 11:15am	C	Making Sense of Money <i>Speakers: Nina Eaddy</i>	Colony C
10:30am – 11:15am	C	Math Digital BreakOut <i>Speakers: Jennifer Burns</i>	Guilford A
10:30am – 11:15am	D	Developing Math Mindset with Problem Solving Labs <i>Speakers: Erica Slate Young</i>	Pinehurst
10:30am – 11:15am	D	Learning Together: Teacher and Math Coach Partners <i>Speakers: Ty Woodring, F. Paul Wonsavage</i>	Auditorium IV
10:30am – 11:15am	D	Linear Programming with the TI nSpire <i>Speakers: Rob Sharpe</i>	Imperial H
10:30am – 11:15am	D	Use of 3-D Printing to Support Volume Calculations <i>Speakers: Linda S. Harvel</i>	Augusta A
10:30am – 11:15am	D	Using a Daily Primer to Teach and Simplify Statistics Lessons <i>Speakers: Daniel Bennett</i>	Cedar C

10:30am – 12:15pm	A	Social Justice and Mathematics: Solving World Problems <i>Speakers: Chadd McGlone, Naomi Blum</i>	Colony A
10:30am – 12:15pm	A	Yes, You Can Support, Coach, and Evaluate Math Teachers! <i>Speakers: Laura Davis</i>	Blandwood
10:30am – 12:15pm	M	# Lines for Number/Operation Sense <i>Speakers: Ruth Harbin Miles</i>	Carolina Theater
10:30am – 12:15pm	M	A Variety of Ideas for Learning Stations in Grades K-5 <i>Speakers: Betty Long, Deborah Crocker</i>	Pebble Beach
10:30am – 12:15pm	M	Fluency: The Missing Link <i>Speakers: Melinda Schwartz Ed D</i>	Biltmore B
10:30am – 12:15pm	M	Navigating the Journey of Productive Struggle <i>Speakers: Maribeth Bridges Priest</i>	Colony B
10:30am – 12:15pm	M	Student Discourse: Make the Student the Sage on the Stage <i>Speakers: Sandra Adams</i>	Imperial B
10:30am – 12:15pm	L	Conceptual Learning & Direct Instruction: The Balance <i>Speakers: Dr. Bonnie Bolado</i>	Auditorium II
10:30am – 12:15pm	L	Eco-Math: Calculations for People and the Planet <i>Speakers: Irene Aiken</i>	Tidewater
10:30am – 12:15pm	L	Inquiry and Innovation In the Guided Math Class <i>Speakers: Jennifer LaFleur, Cathi Mintz</i>	Tanglewood
10:30am – 12:15pm	L	Math Fact Fluency for All! <i>Speakers: Kim Sutton</i>	Oak B
10:30am – 12:15pm	K	Dyscalculia: What is it? What are its Characteristics? How Do I Help? <i>Speakers: Ginger Cash, Denise Schulz</i>	Auditorium III
10:30am – 12:15pm	S	"Appy" Hour <i>Speakers: Cordelia Breiner, LaKecia Brown</i>	Sand Piper
10:30am – 12:15pm	S	Empowering Teachers and Engaging Students with Canvas <i>Speakers: Christy Barham, Joy McCormick</i>	Oak A
10:30am – 12:15pm	S	Routinely Leveraging the Math Practices <i>Speakers: Karen McPherson</i>	Guilford C
10:30am – 12:15pm	C	Entrepreneurial Challenges for Middle Grades Math <i>Speakers: Michael Belcher, Erin Krupa, Jere Confrey</i>	Imperial E
10:30am – 12:15pm	C	Making Mathematics Accessible <i>Speakers: Robin Barbour</i>	Turnberry
10:30am – 12:15pm	C	Tessellating Patterns – Math & Art <i>Speakers: Maureen Johnson, Cristina Gillard, Kathleen Fick</i>	Imperial F
10:30am – 12:15pm	D	Math 1 Tasks - Tried and True <i>Speakers: Wendy Bartlett</i>	Imperial A
10:30am – 12:15pm	D	Math Mindsets Focusing on the Pythagorean Theorem <i>Speakers: Eric M. O'Brien</i>	Imperial C
11:30am – 12:15pm	A	Best Practices for Effective Instructional Coaching <i>Speakers: Thomas Coleman</i>	Pinehurst
11:30am – 12:15pm	A	Math Integrated/Interdisciplinary <i>Speakers: L.D. Dockery</i>	Morehead
11:30am – 12:15pm	A	Numbers and Nature: Exploring Math Outside <i>Speakers: Katherine Baker, Scott Morrison, Rylie Torretti, Mirella Cisneros</i>	Arrowhead A
11:30am – 12:15pm	A	Take the Lead on Your Teacher's Evaluation <i>Speakers: Amanda Thompson</i>	Auditorium I

11:30am – 12:15pm	A	Unlock Learning Potential with a Strong Math Culture <i>Speakers: Sara Hinsley, Elizabeth Venn</i>	Augusta B
11:30am – 12:15pm	M	Implementing the K-5 Instructional Frameworks <i>Speakers: Arren Duggan, Katie Schwartz</i>	Biltmore A
11:30am – 12:15pm	S	Experience The Math <i>Speakers: Jo Adams, Lorrie Mitchell</i>	Cedar A
11:30am – 12:15pm	S	Teaching Strategies for Algebra <i>Speakers: Jane Damaske, Ruth Casey</i>	Imperial G
11:30am – 12:15pm	C	Healthy Math <i>Speakers: Dot Sulock</i>	Colony C
11:30am – 12:15pm	C	InstaMath! <i>Speakers: Kimberly Hunt, Nicolette Hunt</i>	Guilford A
11:30am – 12:15pm	C	Math Hearts- Building a Relationship With Students While Teaching Math. <i>Speakers: Barbara Hill</i>	Imperial H
11:30am – 12:15pm	C	Representing Rational Numbers On The Number Line <i>Speakers: Meetal Shah, Jenn Persson</i>	Auditorium IV
11:30am – 12:15pm	D	Enthusiasm is Infectious <i>Speakers: Deb Butler</i>	Augusta A
11:30am – 12:15pm	D	Slide and Divide: Simplistic Factoring Method or Mathematical Transgression? <i>Speakers: Cyrus Henson, Sara Starnes</i>	Cedar B
11:30am – 12:15pm	D	Understanding Probability Literacy of High School Students <i>Speakers: Fred A. Coon IV</i>	Cedar C
11:30am – 12:15pm	D	Using Stations for Mastery <i>Speakers: Emily Bryant</i>	Oak C
12:30pm – 1:15pm		Doing The Work: Expanding Current Notions of Mathematical Mindsets <i>Speakers: Jose Vilson</i>	Guilford C
12:30pm – 1:15pm	A	Graph Theory & Discrete Math <i>Speakers: Dilip Barman</i>	Arrowhead A
12:30pm – 1:15pm	A	Using Philosophical Chairs in the Mathematics Classroom <i>Speakers: Julie Bacak</i>	Augusta B
12:30pm – 1:15pm	M	Flexible Math Groups <i>Speakers: Heather Landreth</i>	Oak A
12:30pm – 1:15pm	M	Math Breakout Games Made Easy <i>Speakers: Ella Frazier</i>	Oak B
12:30pm – 1:15pm	E	Calendar Time <i>Speakers: Kate Ward, Holly Averette</i>	Meadowbrook
12:30pm – 1:15pm	L	Are You Ready to Break Out? <i>Speakers: Crystal Williams</i>	Imperial G
12:30pm – 1:15pm	L	What Part of Fraction Don't You Understand? <i>Speakers: Thom OBrien, Exhibitor</i>	Oak C
12:30pm – 1:15pm	S	A Few of My Favorite Things <i>Speakers: Leah McCoy</i>	Cedar A
12:30pm – 1:15pm	C	Cooking Up 7th Grade Math <i>Speakers: Renee Synan, Jack Synan</i>	Sand Piper
12:30pm – 1:15pm	D	An Introduction to the CORDIC Method <i>Speakers: Philip Rash</i>	Colony C
12:30pm – 1:15pm	D	An Open Ended Trigonometry Task <i>Speakers: Kristi Martin</i>	Guilford A

12:30pm – 1:15pm	D Where Are We Ever Going to Use This? <i>Speakers: Yvette Shore, Joan Ray</i>	Auditorium IV
12:30pm – 2:15pm	A NCTest Online Calculator <i>Speakers: Lauren Baucom</i>	Auditorium II
12:30pm – 2:15pm	A The Real Value of Place Value <i>Speakers: Jen Curtis, Robin Barbour</i>	Imperial E
12:30pm – 2:15pm	M Developing Fact Fluency Built on Understanding <i>Speakers: Alisan Royster</i>	Morehead
12:30pm – 2:15pm	M Elementary Math Vocabulary <i>Speakers: Ruth Harbin Miles</i>	Carolina Theater
12:30pm – 2:15pm	M Math Running Records <i>Speakers: Dr. Nicki Newton</i>	Turnberry
12:30pm – 2:15pm	M Origami in Elementary Mathematics <i>Speakers: Alan Russell</i>	Imperial H
12:30pm – 2:15pm	M Place Value Understanding: Seems So Easy, But Is It?! <i>Speakers: Jenny Ainslie</i>	Imperial B
12:30pm – 2:15pm	L Co-Teaching: Education's Best Kept Secret <i>Speakers: Erny Hoke, Mathin Ange, Matt Daniel, Brittany Parker</i>	Biltmore B
12:30pm – 2:15pm	L Equity Through Math <i>Speakers: Jeannie Curtis, Marta Alcala-Williams</i>	Colony A
12:30pm – 2:15pm	L Teaching Math Using the LEGO Brick 3-5 <i>Speakers: Dr. Shirley A Disseler</i>	Blandwood
12:30pm – 2:15pm	S Investigative Learning in High School Math <i>Speakers: Bethany Furr</i>	Colony B
12:30pm – 2:15pm	S Through the Looking Glass- Our Road to SBG <i>Speakers: Allison Yokeley, Jennifer White</i>	Tidewater
12:30pm – 2:15pm	C Folding a Triangular Hexahedron <i>Speakers: Kathleen Fick, Daniel Bennett</i>	Imperial F
12:30pm – 2:15pm	C Using Pedagogical Structures to Get Students Talking and Thinking <i>Speakers: Christine King</i>	Tanglewood
12:30pm – 2:15pm	D Building Mathematical Mindsets by Breaking Out <i>Speakers: Ryan Severance</i>	Pebble Beach
12:30pm – 2:15pm	D Hands on Classroom Ready - Contextual Math Lessons from Geometry in Construction and AMPED on Algebra <i>Speakers: Scott Burke</i>	Augusta A
12:30pm – 2:15pm	D Incorporating Global Education into the Secondary Math Classroom <i>Speakers: Stephanie Morgan</i>	Pinehurst
12:30pm – 2:15pm	D Teaching Math with a TI-84 Plus- Beyond the Basics <i>Speakers: Ruth Casey, Margaret Bambrick</i>	Imperial C
12:30pm – 2:15pm	D Teaching Statistics in Fourth Year Math <i>Speakers: Travis Weiland</i>	Cedar C
12:30pm – 2:15pm	D Transformations in Math 2 <i>Speakers: Wendy Bartlett</i>	Imperial A
12:30pm – 2:15pm	D Using Algebra Tiles to Build Conceptual Understandings <i>Speakers: Michele Cudd, Emily Elrod</i>	Imperial D
12:30pm – 2:15pm	U Mathematics Teacher Education Partnership of NC: Join the Conversation <i>Speakers: Holt Wilson, Allison McCulloch, Joseph Reaper</i>	Auditorium III

1:30pm – 2:15pm	A	Action Research in the Math Classroom <i>Speakers: Maureen Grady</i>	Augusta B
1:30pm – 2:15pm	A	Developing a Mathematical Mindset in District and School Leaders <i>Speakers: Ashley McCartha, Susan Westall</i>	Imperial G
1:30pm – 2:15pm	A	Math PD: Why Do We Do It? <i>Speakers: Emily Hare</i>	Arrowhead A
1:30pm – 2:15pm	A	Process Over Product: An Essential Math Mindset <i>Speakers: Dr. Bonnie Bolado</i>	Biltmore A
1:30pm – 2:15pm	A	Research in Education, Fact or Fiction? <i>Speakers: F. Paul Wonsavage</i>	Auditorium I
1:30pm – 2:15pm	M	Math Fact SWAG --- Students With A Goal <i>Speakers: Thom OBrien, Exhibitor</i>	Oak C
1:30pm – 2:15pm	M	Problem Solving Beyond Key Words (1st-3rd) <i>Speakers: Amanda Pierce, Heather Landreth, Donna Bell</i>	Sand Piper
1:30pm – 2:15pm	E	Exploring Early Mathematics With Families <i>Speakers: Amanda Kates, Frederique Yova</i>	Meadowbrook
1:30pm – 2:15pm	S	Going Beyond the Textbook <i>Speakers: Ryne Cooper, Mike Swinson</i>	Cedar A
1:30pm – 2:15pm	C	Stuck in the Middle? <i>Speakers: Angela Ramey</i>	Guilford A
1:30pm – 2:15pm	D	Full Steam Ahead: Supporting Underprepared Calculus Students <i>Speakers: Forrest Hinton</i>	Auditorium IV
1:30pm – 2:15pm	D	Reality Math <i>Speakers: Dot Sulock</i>	Cedar B
1:30pm – 2:15pm	D	Statistics and Probability Palooza <i>Speakers: Amy Martin</i>	Colony C

Free Gift!

**NCCTM has a free gift for all conference attendees
Stop by the the NCCTM Booths in the Exhibit Hall**

Follow NCCTM

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Exhibit Hall and Vendor Information

Exhibit Hall Hours

Thursday, November 7
8:00 am - 4:40 pm

Friday, November 8
8:00 am - 2:00 pm

Our exhibits feature the most current mathematics education products, publications, software, services and learning opportunities. We encourage all of our conference attendees to be sure to get by the exhibit area and support our exhibitors. Exhibits are located on the main floor of the Koury Convention Center in the Guilford Ballroom. Entrance is through the main lobby and name badges must be shown for admission. Exhibits are open to registered conference participants during identified times.

Thank You to our Sponsors!

Vendors and Sponsors are a huge part of keeping the conference cost affordable. Please make sure to visit with them and say thank you! **Additionally, stop by the NCCTM booth for your free gift!**

Vendor Donated Door Prizes

Vendors are asked to donate door prizes to share at the Awards Celebration. Tickets for door prizes will be distributed on Thursday afternoon at 4:30pm as you enter the Awards Celebration reception. You must be present to win – tickets are drawn at the end of the celebration

Booth No.	Company/Organization
301	Alman Education
611	American Book Company
306	Appalachian State University
408	ASSISTments
605	Borenson and Associates, Inc.
407	Box Cars and One-Eyed Jacks
600	C King Education Inc.
507	Carnegie Learning
307	CPM Educational Program
200	Creative Mathematics
202	CURRICULUM ASSOCIATES
800	Diane's Etc.
309	Didax Inc.
510	Dreambox Learning
300	EAI Education
206	East Carolina University
801	Easy Worksheek
409	ETA hand2mind
401	ExploreLearning
711	Fit to a Tee
403	FROG PUBLICATIONS
504	Get More Math
511	Great Minds
210	Guilford County Schools
505	Hart Inc.
610	Heinemann Publishing
601,603	Houghton Mifflin Harcourt

Exhibit Hall and Vendor Information

405	Imagine Learning
303	Istation
602	IXL Learning
205,207	NCCTM/Math Celebrations
211,213	Math Fair
506,508	McGraw-Hill Education
500,502	Mentoring Minds
606	Mind Research Institute
204	Mountain Math/Language
400,402	National Geographic Learning Cengage
703	NCAE
406	North Carolina Network of Math Teachers' Circles
608	North Carolina Society of Surveyors Education Foundation
604	North Carolina State University
302,304	Pearson K12 Learning, LLC
701	PFS Investments
509	Professional Educators of North Carolina (PENC)
305	Proven Learning
607	State Employees' Credit Union
609	Texas Instruments
308	The Markerboard People
201,203	NCCTM/Twitter/#NCMTBoS
208	UNC Charlotte
404	Walch Integrated Math
501,503	Winston-Salem CVB

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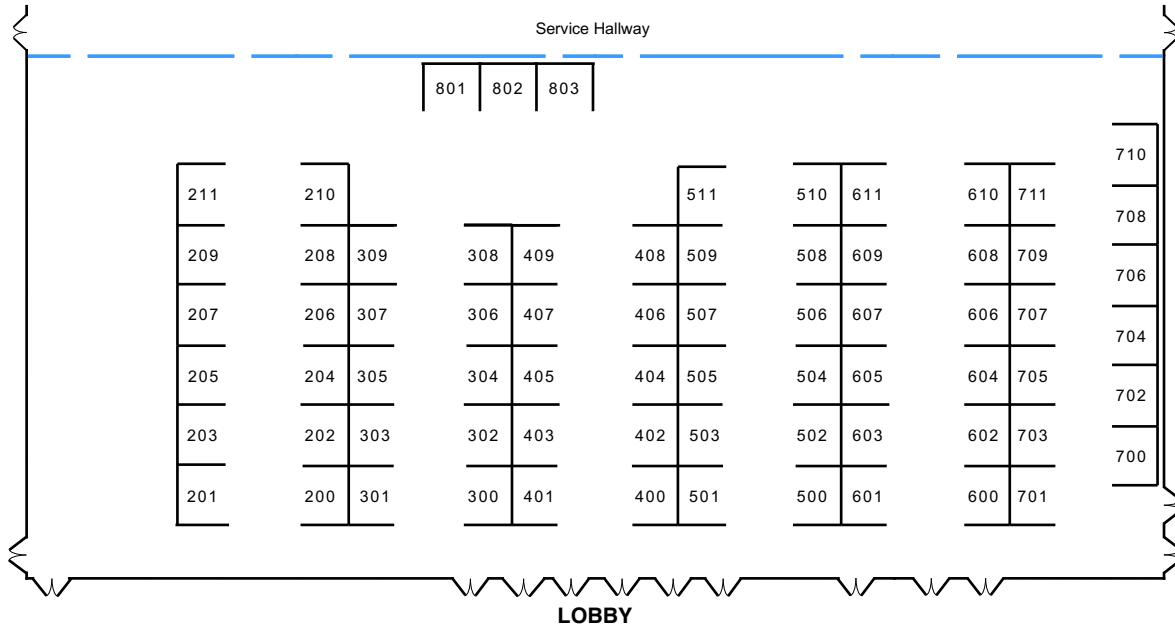
**TEXAS
INSTRUMENTS**



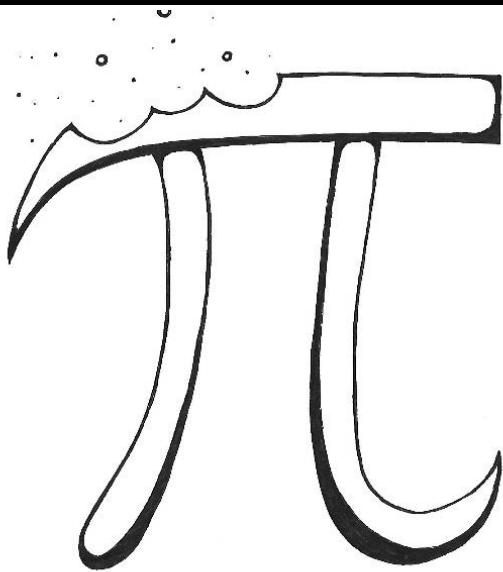
UNC CHARLOTTE
Distance Education

Exhibit Hall and Vendor Information

Exhibit Hall Map



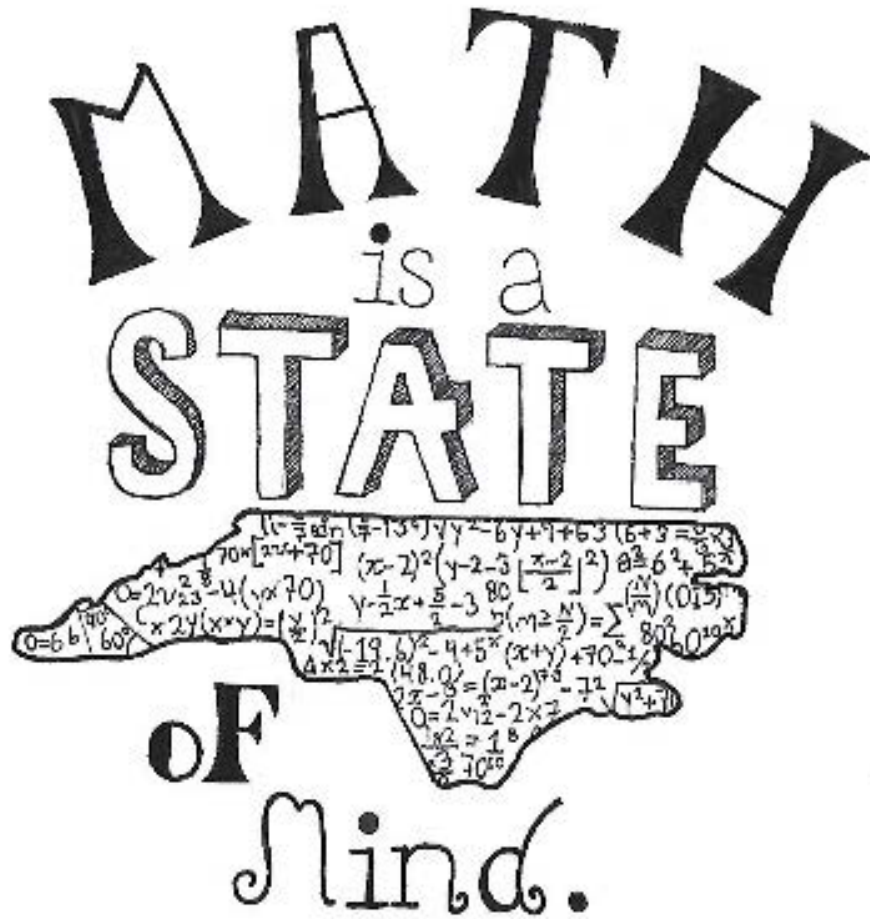
NC Council of Teachers of
Mathematics 2019 Fall Conference
Guilford Ballroom D, E, F & G
November 7-8, 2019



Kennedy Welch, 11th grade, Central Region

Grayson Riggins, 8th grade, Central Region

Math Logo Contest

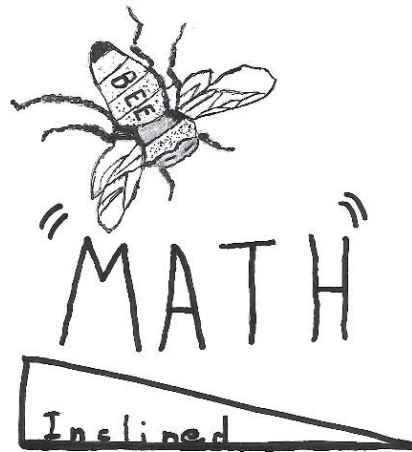


**2019 Winning Design Submitted by
Avnielle Krause**

6th Grade, North Windy Ridge Intermediate (Buncombe Co), Western Region
Teacher: Ms. Brandi Fleckenstein

**2019 Runner Up
EJ Howard**

3rd Grade, Mt. Olive Elementary (Stokes Co)
Central Region
Teacher: Ms. Ashley Jones

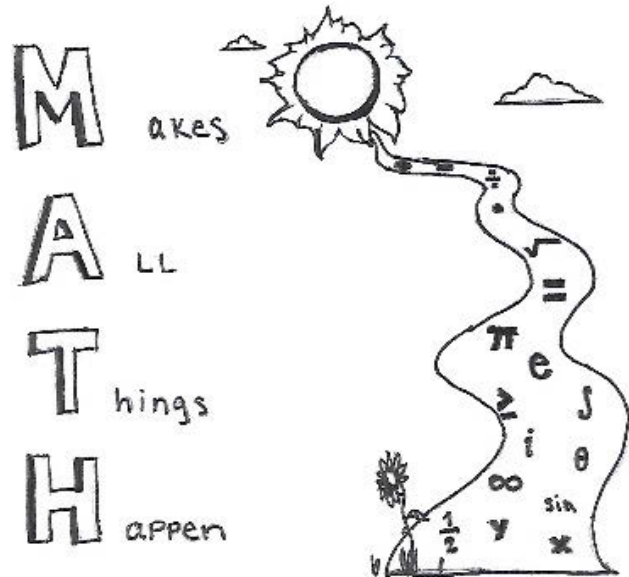


Math Logo Contest

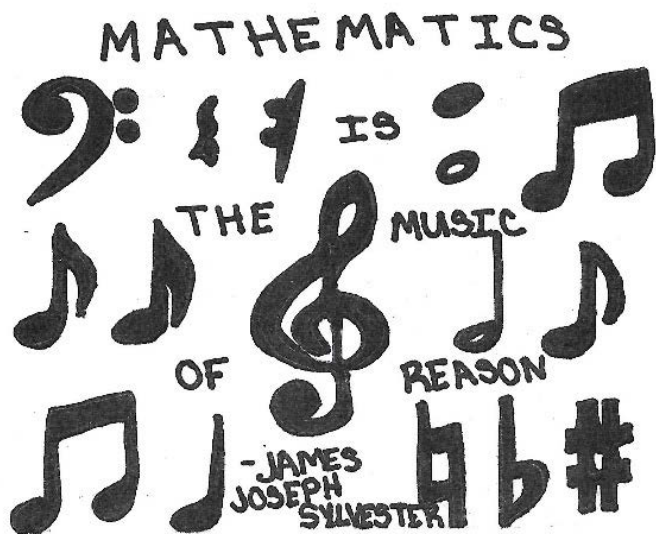
2019 Regional Finalist



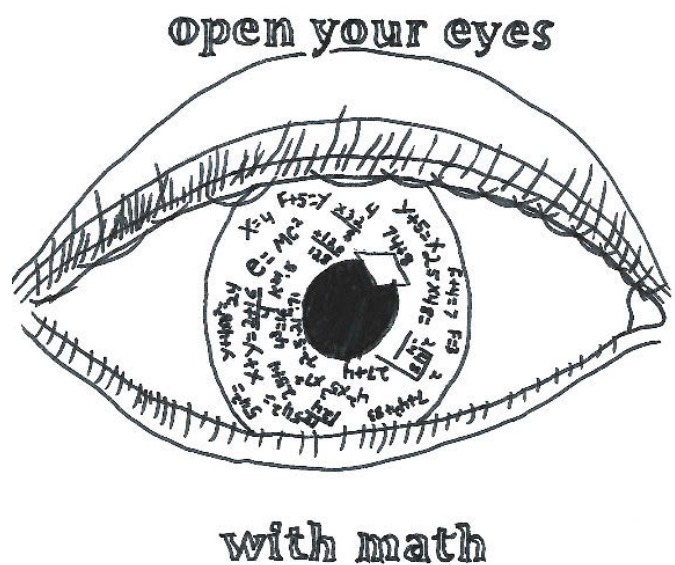
Averie Buckner, 6th grade, Western Region



Holly Grant, 12th grade, Western Region

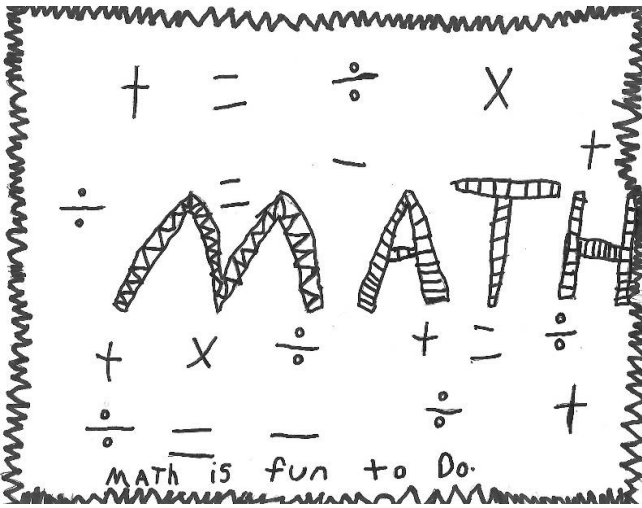


Kiasia Carson, 9th grade, Western Region

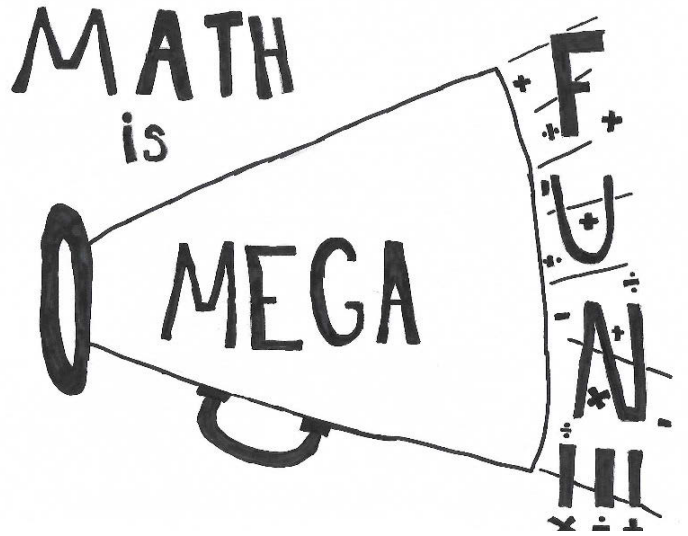


Sheldon Collier, 6th grade, Western Region

Math Logo Contest



Lydia Mabe, 2nd grade, Central Region



Sydney Jones, 7th grade, Eastern Region

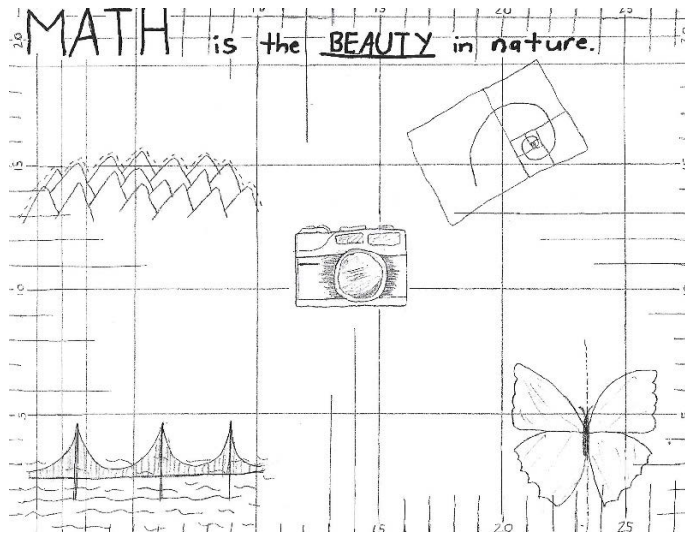


Rachel Richardson, 12th grade,
Western Region



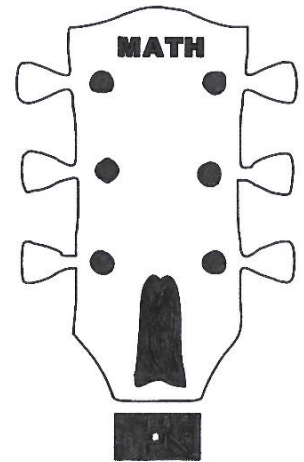
Belle Turner, 7th grade,
Eastern Region

Math Logo Contest

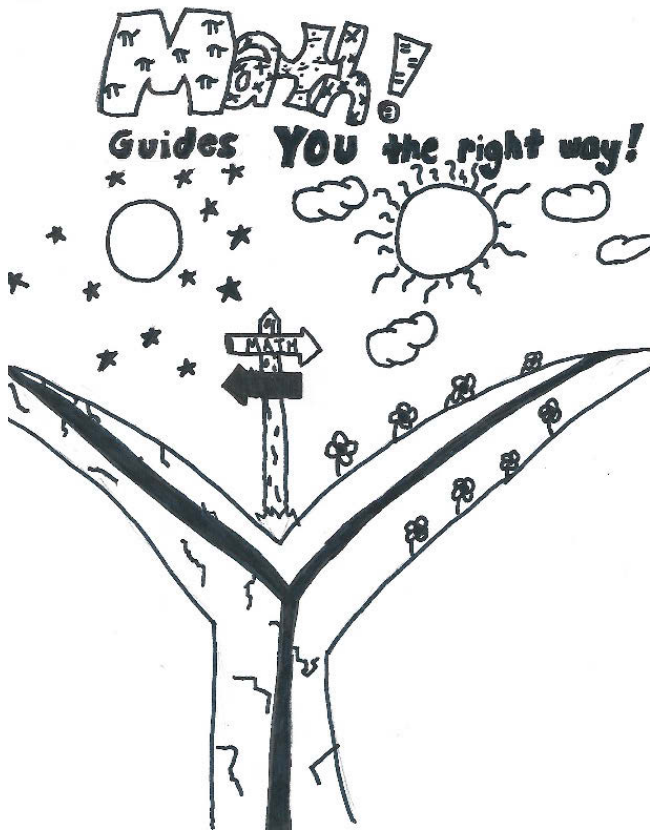


James Boone, 9th grade, Eastern Region

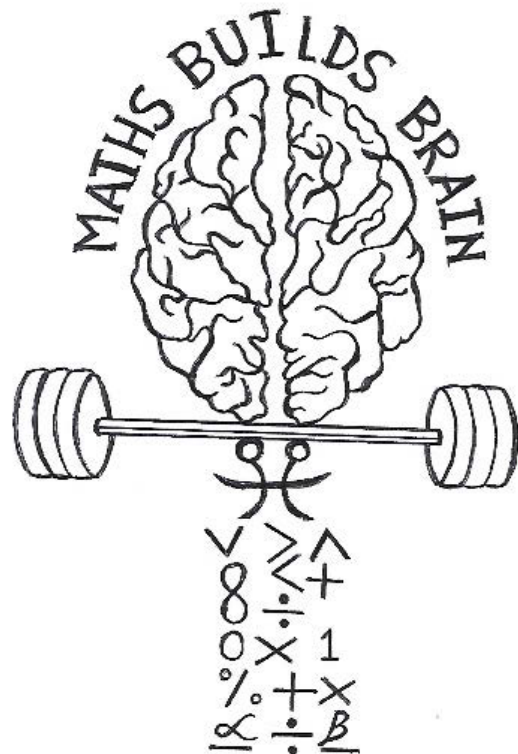
**LET'S
GUIT-AR
ROCK!
ON WITH
MATH!**



Trenton Saunders, 9th grade, Eastern Region



Lily Wishon, 5th grade, Central Region

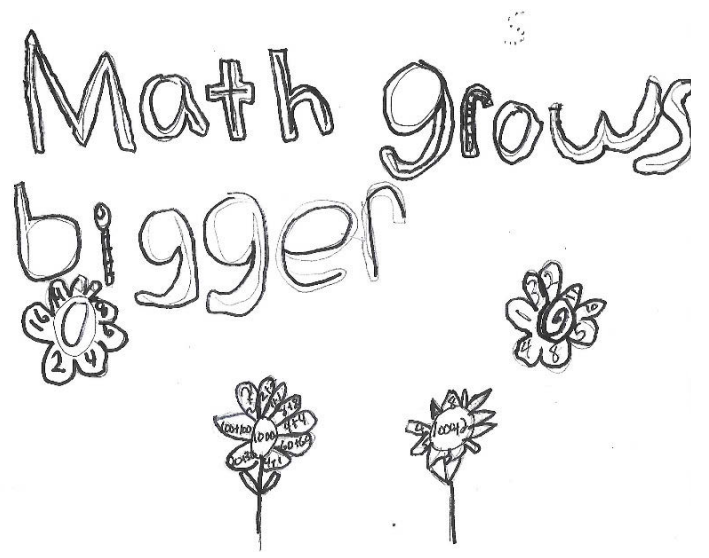


Rachit Chandrakul, 4th grade, Central Region

Math Logo Contest



Mollee Maness, 2nd grade, Central Region



Natalie Yow, 2nd grade, Central Region

2020 Logo Contest

Have your students submit original artwork for the 2020 Logo Contest!

Winning submission is printed on the conference t-shirt and recognized at the NCCTM Awards Celebration.

Entries must be submitted by March 15th.

For more information visit:
<https://www.ncctm.org/activities/logo-contest/>

Also, did you know that next year is our 50th Anniversary, we are moving, and it's 20-20!

Promises to be a fun year to think about a logo!

MATH
IT'S EASY
AS
PI



Haley Bennett, 8th grade, Central Region

2019 Outstanding Elementary Math Teachers

Christine Bertson	Alamance-Burlington	Carrie Briggs	Person
Katie Smith	Alexander	Ashlee Thomas	Pitt
Jennifer Sheets	Alleghany	Julia Tackett	Polk
Laura Absher	Ashe	Christy Hutchins	Randolph
Melissa McKeown	Asheboro City	Candi Horton	Roanoke Rapids
Jessica Jones	Avery	Signe Holley	Rockingham
Katie Moore	Beaufort	Lindsey McCraw	Rutherford
Amy Mizell	Bertie	Cynthia Lee	Sampson
Carla Bethea	Bladen	Richard Ritchey	Scotland
Holly Needham	Brunswick	Laura Williams	Stokes
Amanda Fields	Buncombe	Daniel Bowman	Surry
Nancy Mitchell	Caldwell	Nichole Hayes	Thomasville City
Laurie Fazio	Charlotte-Mecklenburg	Stephanie Wacek	Wake
Eva Membreno	Chatham	Debbie Glover	Watauga
Anna Ross	Cleveland	Ashley Edwards	Wayne
Rhonda Wetherington	Craven	Shannon Goss	Weldon City
Rebecca Criste	Cumberland	Amber Faw	Wilkes
Angela Hinkle	Davidson	Gretchen Godinez	Wilson
Nell Mason	Edenton-Chowan	Tiffani Richardson	Winston-Salem/Forsyth
Shelley Greene	Elizabeth City - Pasquotank	Diane Reece	Yadkin
Carah Reid	Franklin		
Lovie Roscoe	Gates		
Christopher Leas	Granville		
Nadine DeLallo	Greene		
Colby Williams	Guilford		
Sherice Campbell-Ellison	Harnett		
Cristin Ratkowski	Henderson		
Chuck Chavka	Hickory City		
Brittany Waguespack Hoganson	Hoke		
Kenitra Waddell	Iredell-Statesville		
Caroline Fongemy	Kannapolis City		
Susan Jackson	Madison		
Renee Robbins	Moore		
Dana Samuel	Mooreville Graded		
Melissa Martin	Mount Airy City		
Christina Recker	Newton-Conover		
Tracy Rettig	Orange		
Beth Johnson	Pender		
Rachel Bengé	Perquimans		

Presidential Award for Excellence in Mathematics

The **Presidential Awards for Excellence in Mathematics and Science Teaching** are the nation's highest honor for mathematics and science teachers. This national award administered for the White House by the National Science Foundation allows outstanding mathematics and science teachers to be recognized for their subject area content knowledge and their ability to motivate students. Each year the program recognizes outstanding mathematics and science teachers from across the United States for their contributions in the classroom and to their profession. In North Carolina, a state selection committee has selected the following secondary mathematics teachers as finalists for 2019:



Tyler Erb

*Community House Middle School
Charlotte-Mecklenburg Schools*



Cheryl Gann

*North Carolina School of Science
and Mathematics*



Adria Hardy

*Brevard Senior High School
Transylvania County Schools*

2017 Presidential Awardee



Wendy Bartlett

*Regan High School
Winston-Salem Forsyth County Schools*

2018 Presidential Awardee



Elizabeth Gillikin

*Smyrna Elementary School
Carteret County Schools*

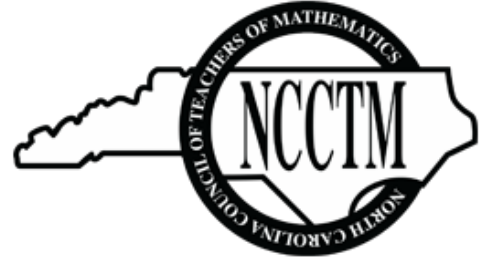
Record of Sessions Attended

NORTH CAROLINA COUNCIL OF TEACHERS OF MATHEMATICS

Promoting Excellence in Mathematics Teaching and Learning for All

Name of Provider: NCCTM

Educator's Name: _____



Professional Development Activity: NCCTM 48th Annual Conference
November 7-8, 2019
Greensboro, NC

Description of Professional Development Activity: This is a two-day annual conference sponsored by NCCTM. Hundreds of sessions and workshops are offered for teachers of pre-kindergarten through college. Topics range from administration to geometry and from pre-calculus to statistics.

Attention Educator: Professional Development time earned should be the time actually spent in sessions and/or workshops.

Date	Location	Presentation Title	Presenter	Time	PD Time
Total Professional Development Hours Accrued:					

I certify that the above named educator accrued the indicated number of Professional Development hours.

Certificate of Attendance

2019 Certificate of Attendance

Presented to

In recognition of attendance at the 49th Annual NCCTM State Conference
Developing *Mathematical Mindsets* for All
November 7-8, 2019
Greensboro, NC



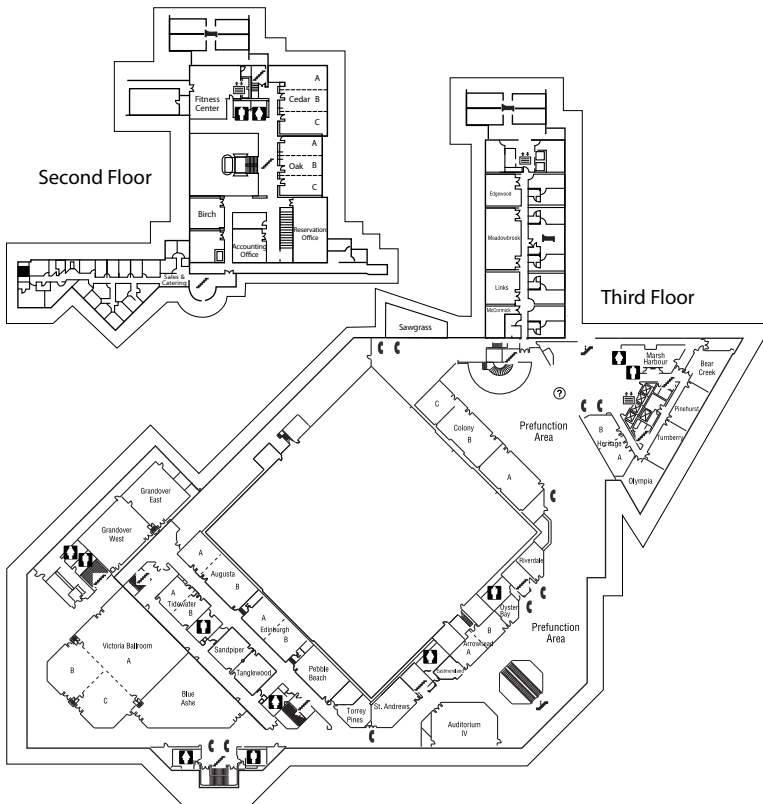
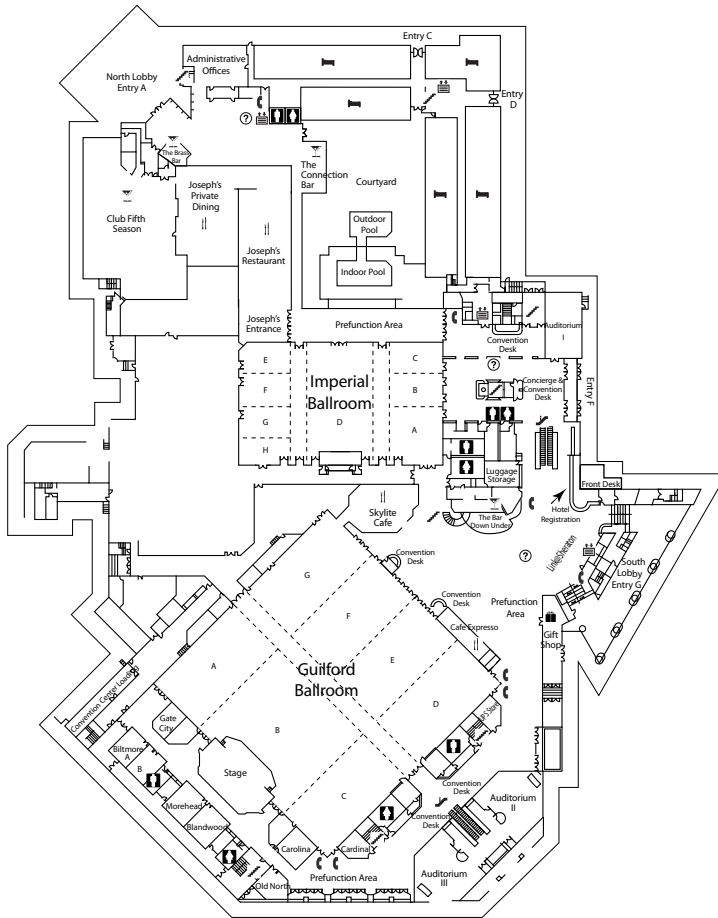
Kathy Jaqua
NCCTM President





Sheraton Four Seasons

DIRECTORY



Hotel Registration Ballrooms • Meeting Rooms

Convention Desks

First Floor		Second Floor	
Auditorium I	Cardinal	Imperial Ballroom	Birch
Auditorium II	Carolina	A, B, C, D, E, F, G & H	Cedar A, B & C
Auditorium III	Gate City	Morehead	Oak A, B & C
Biltmore A & B	Guilford Ballroom	Old North	
Blandwood	A, B, C, D, E, F & G		

Third Floor		Victoria Wing	
Arrowhead A & B	Heritage A & B	Pinehurst	Turnberry
Auditorium IV	Links	Riverdale	Blue Ashe
Augusta A & B	Marsh Harbour	Sandpiper	Grandover East
Bear Creek	McCormick	Sawgrass	Grandover West
Colony A, B & C	Meadowbrook	St. Andrews	Victoria A, B & C
Eastmoreland	Olympia	Tanglewood	
Edgewood	Oyster Bay	Tidewater A & B	
Edinburgh A & B	Pebble Beach	Torrey Pines	

Elevators Escalators Stairs
 Public Telephones Coin Use Telephones
 Information Centers Receptions

Restaurants Lounges
 Joseph's Restaurant Club Fifth Season
 Skylite Café The Brass Bar
 Café Espresso The Connection Martini Bar
 Link@Sheraton The Bar Down Under

Administrative Offices Fitness Center
 Sales & Catering Pools
 Reservations
 Guest Rooms Gift Shop



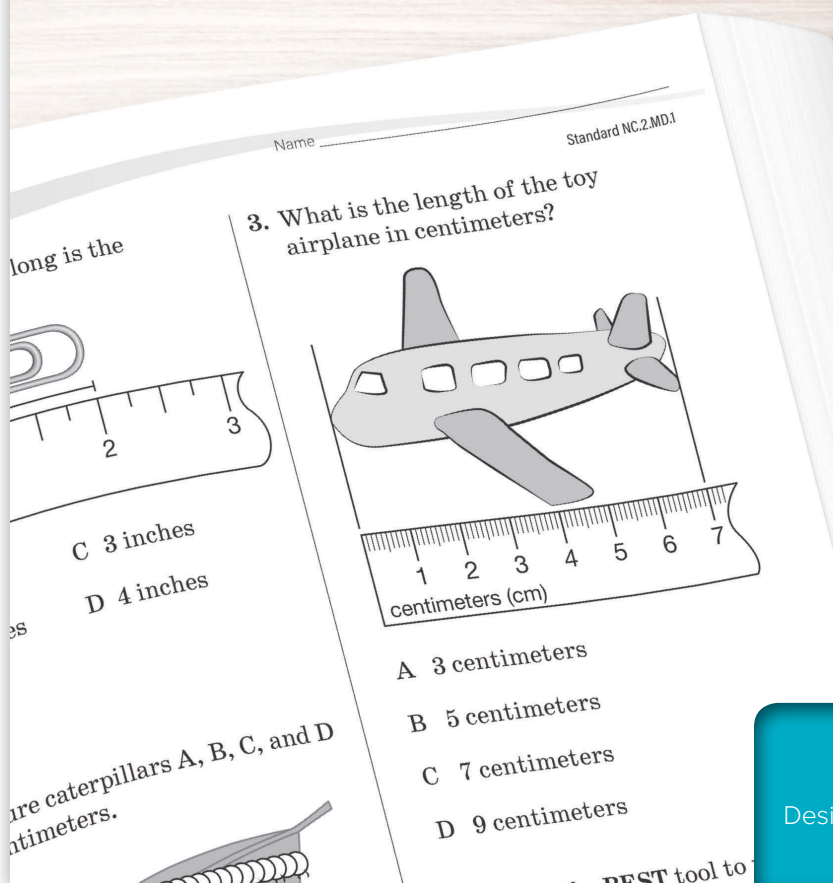
JOSEPH S. KOURY CONVENTION CENTER

How does your school teach **math**?

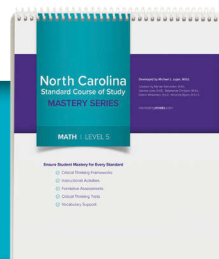
Total Motivation Math addresses **100% of the NCSCoS for Mathematics** and prepares students to excel on high-stakes assessments.

- ✓ Rigorous, NCSCoS-aligned content embeds critical thinking into lessons.
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