

Welcome...

...to the 2014 KCM Conference!

Thank you for joining us as we learn from each other, formally and informally, sharing a contagious passion and growing expertise for improving mathematics education.

Considering that mathematics proficiency at every level, preschool to high school, is the greatest predictor of future success, your role in supporting or providing high-quality mathematics education is critical for preparing a citizenry ready for interesting and rewarding experiences in college and career. Our conference theme, Fluency Forward: The Path to Mathematical Success, was chosen to emphasize the importance of preparing students to obtain profound mathematical understanding and conceptual skills. We believe in ensuring that students are able to think and communicate mathematically in much the same way a person may become fluent with a foreign language.

We are honored to offer a rich and varied program of esteemed speakers from Kentucky and beyond, which assures every conference attendee will gain valuable knowledge, strategies, and tools. We will enjoy a Celebration Dinner on Monday evening as we connect and reflect on the progress of our outstanding community of mathematics educators and prepare to continue the momentum for greater success of Kentucky students in the coming year. On behalf of the KCM staff, we hope you enjoy your conference learning experience and we appreciate the opportunity to serve you.

Best,
Daniel McGee
KCM Executive Director

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Having a great time? Received great ideas from a conference session? Had a favorite quote from the conference welcome? Tell us about it!

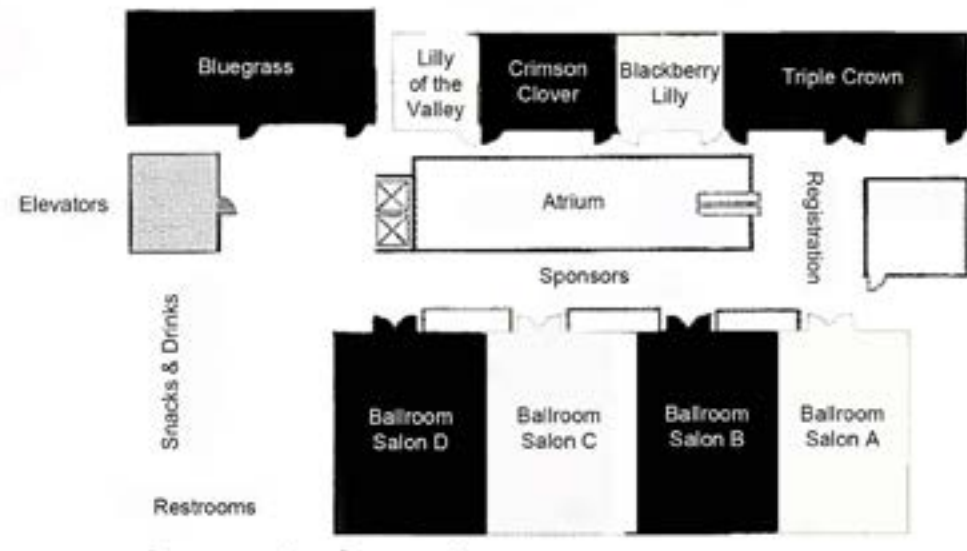
Leave us a Facebook wall post or comment, and/or Tweet us during the conference to tell us about your experience. Be sure to "tag" us when you do!



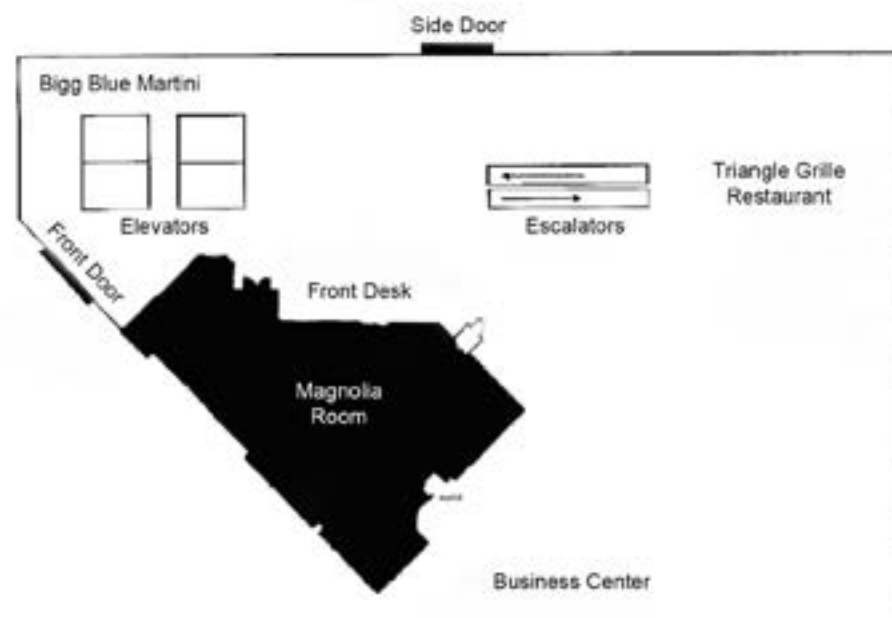
2014 KCM Conference Map



2nd Floor: Presentation Rooms



1st Floor: Magnolia Room & Restaurants



Door Prizes

We want to thank you for dedicating your time and talents to being with us at the 2014 KCM Conference! Thanks to our wonderful conference sponsors, we are excited to offer door prizes for our conference attendees.

How To Win:

Name tags of all present conference attendees will be collected before the last breakout session on Tuesday afternoon (3/11). Prize winners will be drawn from these name tags and will be announced immediately following the last breakout session via call board on the 2nd floor of The Hilton hotel, next to the registration table. Individuals must be present to win. Door prize winners will be required to fill out a tax form for their winnings.

What You Could Win:

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Conference Schedule at a Glance
Monday Morning (3/10)

7:00am-8:00am		
	Conference Registration & Continental Breakfast	2nd Floor of Hilton
Session #1 8:00am-9:10am		
K-8	Understanding, Assessing and Developing Children's Mathematical Thinking: Task-Based Interviews as Powerful Tools for Teacher Professional Learning - Clarke ★	Magnolia (1st Floor)
3-5	Fractions, Data, and Assessment, 'Oh My!' - Hacker	Salon A
General	Resources for Conducting Family Math Nights - Morgan	Salon B
K-5	Life Without Regrouping - Dicken	Salon C
9-12	Fabulous, Friendly, Fun - Wilson	Salon D
6-12	Personalizing Learning using the Flipped Classroom and Standards Based Grading - McCutchen	Bluegrass
9-12	Functions - The Heart of Mathematics - Schiffman	Crimson Clover
Pre-K	How Big is Big? Understanding the Big Ideas of Measurement - Sapoznick	Triple Crown
Session #2 9:25am-10:35am		
6-8	Models to Facilitate Reasoning, Problem-Solving and Connect Number Sense to Algebra - Burgunder ★	Magnolia (1st Floor)
Pre-K	Sowing the Seeds - Meiman	Salon A
K-3	Learning to Love Math: Developing Mathematical Fluency Through Curiosity, Flexible Thinking and Creativity - Heavin	Salon B
3-5	The Importance of Mathematical Fluency in the Areas of Multiplication and Division - Elam	Salon C
9-12	From Algebra to PreCalculus, There is More to the Pythagorean Theorem Than First Encountered - Moore	Salon D
PreK-6	Intelligent Adaptive Technology: Empowering Teachers to use Actionable Data - Dubois	Bluegrass
13-16	Limit - The Center of The Calculus - Schiffman	Crimson Clover
K-3	Handling Hundreds - Barber	Triple Crown
Session #3 10:50am-12:00pm		
3-5	Ideas + Tabs = Math Livebinder - Linder	Salon A
K-5	Linear Measurement...It's Not Easy! - Blevins	Salon B
3-5	Developing Fraction Sense - Campbell	Salon C
K-5	Building a Bridge to Fluency - Pierson	Salon D
K-8	Instructional Design for Math Achievement: Practical Solutions for Transforming Mathematical Thinking in the World of the Common Core - Trow	Bluegrass
9-12	Constructions, Circles, Similarity, and Proofs with GeoGebra and Cabri Jr. - Truitt	Crimson Clover
6-8	Common Core 'A BUD-ing STEM' (Building, Understanding and Developing- Science, Technology, Engineering and Mathematics) - Littleton	Blackberry Lilly
K-5	Early Algebraic Thinking: Mathematical Glue - Olijnek	Triple Crown
K-2	It's Story Time! (LEGO Story Time) - Engaging Students to Solve and Create Story Problems with Fluency & FUN! - Dickson	Magnolia (1st Floor)



Conference Schedule at a Glance
Monday Afternoon (3/10)

Lunch 12:00pm-1:15pm		
	Visit The Hilton's Triangle Grille or enjoy an abundance of local restaurant options.	
Session #4 1:15pm-2:25pm		
13-16	Key Aspects of Mathematics Teacher Preparation - Spangler ★	Magnolia (1st Floor)
3-5	Fractions, Decimals, Percents, Oh My!! - Brock	Salon A
K-3	Making Sense of Math: Using the Five Senses to Discover Mathematics - Adams	Salon B
3-5	Fractional Fluency - More Than Speed - Campbell	Salon C
6-9	How Can a Number Line Be Used to Develop Algebraic Thinking? - Hill	Salon D
9-12	Creative Integration of CCSS Math Practices, Quality Activities, Excellent Questioning Techniques, Pertinent Technology - Reardon	Bluegrass
K-5	Math Fluency=Original Children's Literature+Problem-Based Learning - Blevins	Blackberry Lilly
K-5	Show Me the Way - Farmer	Triple Crown
Session #5 2:40pm-3:50pm		
3-5	Moving Beyond Repeated Addition and Subtraction - MacCarty ★	Magnolia (1st Floor)
9-12	Nurturing Mathematical Behavior With Liar's Bingo - Pullin Lane	Salon A
K-3	I Disagree with Myself: My Journey with Number Talks - Harris	Salon B
General	Teaching Mathematics with Technology - White	Salon C
6-8	Ratios & Proportions - Leading to Function Fluency - Emmert	Salon D
K-3	Building Links Between Addition and Subtraction: Concepts and Number Facts - Nickerson	Bluegrass
General	Problem-Based Learning + Exceptionality = Student Success - Woodruff	Crimson Clover
Pre-K	I Spy with My Little Eye... Patterns All Around - Malcolm	Triple Crown
Session #6 4:05pm-5:15pm		
5-8	Making Fractions Come Alive and Make Sense in the Middle Years - Clarke ★	Magnolia (1st Floor)
Pre-K	Numeracy with Pizazz! - Howard	Salon A
General	Serious Fun in the Mathematics Classroom: Practical Strategies to Motivate and Engage Students - Loucks	Salon B
6-8	The Statistics of the Hunger Games - Atwood	Salon C
3-5	Be Fluent: Connecting Multiplication and Division - Nickerson	Bluegrass
9-16	Statistical Inference Based on Simulation - Buckley	Blackberry Lilly
K-5	RTI 101: Discussing the Ins and Outs of Response to Intervention - Newton	Triple Crown
Dinner 5:30pm		
	Join us for a "Celebration Dinner" at The Lexington Convention Center, free of charge to all conference attendees and speakers! Ticket must be in hand. Tickets can be found with each individual's check-in information.	



Conference Schedule at a Glance
Tuesday Morning (3/11)

7:00am-8:00am		
	Conference Registration & Continental Breakfast	2nd Floor of Hilton
Session #1 8:00am-9:10am		
9-12	Look for and Make Use of Structure - Whitesides ★	Magnolia (1st Floor)
K-3	Fun with Subitizing!! A Critical Foundation for Developing Fluency in Number for Students - Prather	Salon A
8:00am-10:35am	What Works for RTI: Models of Successful Elementary Grades Tiered Mathematics Intervention - Moderator: Alice Gabbard	Salon B
K-5	The Art in Math - Owens	Salon C
6-8	Adding and Subtracting Integers - More than a Negative Experience - Campbell	Salon D
3-5	The NUMBER LINE? For Addition? Subtraction? Multiplication? Division? HOW? - Ruble	Bluegrass
K-5	Mathematics Across the Curriculum: Making the Connection with Math and Economics - Yetter	Crimson Clover
6-8	Ethnomathematics: A Culturally Supportive Approach to Increase the Motivation and Engagement of Middle School AA Males - Forde	Blackberry Lilly
Pre-K	Investigate! Engaging Children in Real-World Mathematical Applications Using the Project Approach - McLaren	Triple Crown

Session #2 9:25am-10:35am		
Pre-K	Preschool Play-Based Math Assessment - Moomaw ★	Magnolia (1st Floor)
3-5	10 Times the Fun and Half the Time.....THAT'S FLUENCY! - Thompson	Salon A
8:00am-10:35am	What Works for RTI: Models of Successful Elementary Grades Tiered Mathematics Intervention Cont. - Moderator: Alice Gabbard	Salon B
4-12	Fractions, Decimals, and Percents-RTI for Middle/High - Booth	Salon C
K-3	Fun With Fluency - Davis	Salon D
K-3	Beyond Cookies: Understanding Various Division Models - Magruder	Bluegrass
3-5	PAction: Purposeful Action Marks a Math-Minded School - Hunt	Crimson Clover
9-12	Fluency Forward: Intervention Success - Fithen	Blackberry Lilly
General	Inclusion Classroom Math? The Story Starts Here.... - Woolsey	Triple Crown

Session #3 10:50am-12:00pm		
9-12	Building Fluency Through the Use of Mathematical Models in Applied Contexts - Curless	Salon A
K-3	Computation with Meaning-Addition and Subtraction Grades K-3 - Allen Burns	Salon B
4-6	Computation with Fractions Grades 4-6 - Stamm	Salon C
K-8	Building an Effective Tiered Model in Mathematics - Robertson	Salon D
K-3	When Life Gives You Beads, String 'Em! - Harrison	Bluegrass
K-5	AVMR Champions and Teachers: Updated Structuring Assessment - Anderson	Crimson Clover
9-12	Flipping the Classroom - Using Videos to Teach Algebra - Lindsey	Blackberry Lilly
3-5	Math Congress: Honoring Student Voice in the Math Classroom - Keene	Triple Crown
K-5	Using Models and Representations to Support Learning - Clarke	Magnolia (1st Floor)



Conference Schedule at a Glance
Tuesday Afternoon (3/11)

Lunch 12:00pm-1:15pm		
	Visit The Hilton's Triangle Grille or enjoy an abundance of local restaurant options.	

Session #4 1:15pm-2:25pm		
5-8	It's Not Too Late: Number Intervention with Students in Grades 5-8 - Kinsey ★	Magnolia (1st Floor)
General	KY STEMx Network; The STEMx Performance Guide; Does STEMx Accurately Reflect the Role of Mathematics in STEM Education? - Curless	Salon A
K-3	Algorithm or Strategy? What do the Standards Say? A Focus on Teaching Addition - Buchanan	Salon B
3-4	Understanding Fractions Grades 3 to 4 - Pickett	Salon C
K-5	Independent Fluency Work in the Math Classroom - Ellsworth	Salon D
6-8	Using Blended Learning to Drive Math Fluency - Hilton	Bluegrass
9-12	When is an Octagon a Circle? In Chinese Checkers Geometry! - Keeler	Crimson Clover
K-5	Let's Talk About It! - Wisher	Triple Crown

2:25pm-2:40pm		
	KCM Staff will collect name badges of conference attendees for door prize drawing.	

Session #5 2:40pm-3:50pm		
K-5	Professional Noticing: Expanding the Lens - Thomas ★	Magnolia (1st Floor)
3-5	A Product of Fluency - Smith	Salon A
3-5	Meeting the Common Core's Math Fact Fluency Challenge with Reflex - Owen	Salon B
4-8	Strategies for Encouraging Students to Persist When Working on Cognitively-Demanding Tasks - Clarke	Salon C
6-8	A Mastery Approach to Unit Tests - Kidder	Salon D
General	"My Brain Is a Traffic Jam": Helping Students to Understand and Manage Test Anxiety - Phelps	Bluegrass
7-12	Creatively Integrate iPad Math and Presentation Apps Into Your 7 - 12 Classroom - Reardon	Triple Crown

Door Prizes 4:00pm		
	Prize winners will be drawn from collected name tags and will be announced immediately following the last breakout session via call board on the 2nd floor of The Hilton hotel, next to the registration table. Individuals must be present to win. Door prize winners will be required to fill out a tax form for their winnings.	



Conference Sponsors

The KCM is proud to introduce our 2014 conference sponsors!

A huge "THANK YOU" goes out to each organization and the wonderful people who worked so hard to help the KCM have a successful 2014 conference. Your presence, support and overall dedication to mathematics education plays a major role in our continued growth.

Please be sure to visit our exhibiting sponsors, located conveniently on the 2nd floor of The Hilton hotel, right outside of the Grand Kentucky Ballroom.

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Featured Speakers



Anne Burgunder

New York University & Metamorphosis, Inc.

Anne Burgunder is widely regarded as a teacher's teacher. She understands the dilemmas of teaching and has an assortment of tools to assist teachers in all aspects of the complex work of teaching. She is dedicated to helping teachers increase student achievement through improved instruction and the development of pedagogical content knowledge. Currently, Anne is a clinical faculty member of New York University's Steinhardt School of Education where she teaches mathematics methods courses and mentors student teachers in the field. Anne's work is not limited to pre-service education. She supports practicing teachers in the field in schools across the country as a math consultant for Metamorphosis Teaching Learning Communities. Before joining the Metamorphosis team, she worked as both a national and international consultant and mathematics curriculum specialist in a variety of school settings including public and private, urban and rural, religious and secular, and single sex environments. Anne originally began her career as a math teacher. A life-long scholar and researcher, Burgunder has many interests in math education. She is conducting research on the role of visual images in helping students learn mathematics. She studies the various methods and systems for teaching mathematics employed by other cultures, and she is exploring essential conditions for reducing math anxiety in pre-service elementary teachers. Publications early in her career and several national speaking engagements drew her out of her own classroom into consulting work for Pittsburgh Public Schools and several independent schools. This work was followed by an opportunity to create the curriculum for a new Jewish Day School under a half-million dollar grant from the Partnership for Jewish Education (PEJE). Anne facilitated a mathematics project for over one hundred schools in Northwest Ohio. Anne moved to the New York City suburbs in 1999 to serve as a math staff developer for Community School District 2, a district known nationally for its innovative and rigorous focus on instructional improvement. From 2002 through 2005, Anne lived in Sydney, Australia where her work was centered on the math education of females. Anne Burgunder received her M.S. in math leadership from Bank Street College and is currently working on her PhD dissertation at the University of Plymouth Centre for Teaching Mathematics in Devon, England.



Doug Clarke

Australian Catholic University (Melbourne)

Doug Clarke is a Professor of Mathematics Education at the Australian Catholic University (Melbourne), where he directs the Mathematics Teaching and Learning Centre. In 1991 and 1992, while undertaking doctoral studies at the University of Wisconsin, Doug worked as part of the Mathematics in Context writing and professional development team. In Melbourne, Doug directed the Early Numeracy Research Project, exploring effective approaches to numeracy learning in the early years in 70 Victorian elementary schools from 1999-2002. Doug's professional interests include the use of task-based, one-on-one assessment interviews with young children, strategies for developing persistence on cognitively demanding tasks, problem solving and investigations, manageable and meaningful assessment, and the professional growth of mathematics teachers. Doug enjoys working alongside teachers and students, as they seek to make mathematics relevant, challenging and enjoyable.



Featured Speakers



Kurt Kinsey

Mountain States Mathematics

Kurt Kinsey is co-owner and consultant for Mountain States Mathematics, working together with schools and school systems to improve the mathematics educational experience for students. With a B.S. and M.Ed. in mathematics education, his teaching background includes secondary mathematics, mathematics intervention at the early and middle levels, and teacher in-service and graduate-level coursework. Kurt was a founding member of US Math Recovery Council (USMRC), served on the USMRC Board of Directors, and worked as a member of the USMRC Instructional Strategy Group and as faculty for the USMRC Summer Institute. He is co-author of the Add+VantageMR professional development program and a contributing author for the Math Recovery Intervention Specialist (MRIS) and MRIS Leadership courses. Current projects include on-going development of the Strength in Number professional development programs, providing leadership and program development for the First People's Center for Education, a non-profit organization supporting schools serving Indigenous children, and project collaboration with the Kentucky Center for Mathematics.



Lucinda "Petey" MacCarty

Mountain State Mathematics

Lucinda "Petey" MacCarty, M.Ed., of Sheridan, Wyoming, is co-owner of Mountain States Mathematics, an educational consulting organization. Petey has a passion for mathematics teaching and learning. Her career began as a middle school math teacher and expanded to intervention specialist and district leadership as a Math Recovery Interventionist and K-12 mathematics coordinator. This district leadership role included curriculum development, assessment design and alignment, interventions, and professional development for mathematics content and pedagogy. Beginning in 1999 Petey helped to design the professional development programs for Math Recovery Intervention Specialists and Math Recovery Leaders. In 2003 Petey along with the original developers of Math Recovery helped to establish the non-profit US Math Recovery Council (USMRC). Petey continued to help the USMRC expand and evolve by co-authoring the Add+VantageMR professional development programs and taking leadership roles within the USMRC. As a contributor to Dr. Wright's publication, Teaching Number in the Classroom with 4-8 Year-olds (Sage, 2006) she collaborated with Math Recovery Leaders from across the world to share key principles and practices of Math Recovery to improve mathematics teaching and learning. A large part of her work today is focused on supporting mathematics teaching and learning within Indigenous communities. Petey co-designed the systemic approach for elementary mathematics and professional development programs used by the non-profit First People's Center for Education. Petey is currently a lead developer for the organization and works directly with schools serving Native American, Alaska Natives and Native Hawaiian children across the US. Her goal is to help students and adults realize they can be successful with mathematics, giving them greater access to the world before them.



Sally Moomaw

University of Cincinnati

Sally Moomaw, EdD, is an Assistant Professor of Early Childhood Education at the University of Cincinnati. Much of her research and teaching is in the area of early childhood STEM education (science, technology, engineering, and math). She received her doctoral degree in special education from the University of Cincinnati in 2008 following a long career as a preschool and kindergarten teacher and as the Associate Director for Professional Development at the college's Arlitt Center. She is the author of the textbook Teaching Mathematics in Early Childhood (2011, Brookes), 13 books on early childhood curriculum, and numerous journal articles, and is the Associate Editor for the Journal of School Science and Mathematics.



Featured Speakers



Denise Spangler

University of Georgia

Denise A. Spangler is the Bebe Aderhold Professor in Early Childhood Education, Professor of Mathematics Education, and Head of the Department of Mathematics & Science Education at the University of Georgia. She is also a member of the Graduate Faculty at UGA and holds an appointment as an Adjunct Research Scientist at the Kaput Center for Research and Innovation in STEM Education at University of Massachusetts Dartmouth. Her primary area of research expertise is the development of preservice elementary school teachers' mathematical knowledge for teaching, both in their pre-service and induction years. She has published her work extensively and has garnered grants from both the National Science Foundation and the Spencer Foundation. She has presented her work throughout the US and abroad. She has twice chaired the editorial panel for the Journal for Research in Mathematics Education and is currently serving her second term as chair of the editorial panel for Mathematics Teacher Educator. In her spare time, Denise is in her third term as an elected member of the Clarke County School District Board of Education.



Jonathan Thomas

Northern Kentucky University

Jonathan Thomas is an assistant professor of mathematics education at Northern Kentucky University and a Kentucky Center for Mathematics faculty associate. Formerly an elementary school teacher and intervention specialist in the greater-Cincinnati area, Jonathan has a strong interest in the mathematical development of children. His current research, funded by the National Science Foundation, is focused on finding innovative ways to help pre-service and in-service elementary school teachers develop responsive mathematics teaching practices.



Ellen Whitesides

Institute for Mathematics & Education (IM&E), University of Arizona

Ellen Whitesides works on projects related to the Common Core State Standards in Mathematics in the Institute for Mathematics & Education (IM&E) at the University of Arizona. As part of lead standards writer William McCallum's team, she spearheads professional learning efforts related to the Common Core in Mathematics, works as a co-advisor to the CCSSO's MATH SCASS, and as director of community building for the Illustrative Mathematics Project. She also runs the IM&E professional development conferences for teachers across the country related to the Common Core in Mathematics. Ellen has spoken at many national conferences including the annual NCTM, NCSM, AMTE, and JMM conferences. After earning her master's degree, Ellen continued at Harvard as part of the summer faculty where she teaches a quantitative course for master's degree students starting a Public Administration degree. Ellen worked for three years as a high school geometry teacher in Greater New Orleans, originally through Teach For America, and also as a teacher trainer and community resource in rural South Africa for two years with the US Peace Corps. Ellen holds a BA in Economics with a Math concentration from Colby College in Waterville, Maine, as well as a Masters degree in Public Administration and International Development from Harvard's Kennedy School of Government where she focused on education and innovation in the education space, both nationally and internationally, and was the recipient of the Dean's Award for Excellence in Student Teaching.



Conference Session Details
Session #1
Monday at 8:00am-9:10am

Understanding, Assessing and Developing Children’s Mathematical Thinking: Task-Based Interviews as Powerful Tools for Teacher Professional Learning (K-8) ★

Presented By: Doug Clarke

Room: Magnolia (1st Floor)

Description: Drawing upon a series of assessment tasks and related video clips of students’ work on these tasks, I will share our Australian experience and insights in using task-based interviews to find out what students know and can do, and thereby to inform planning and teaching.

Fractions, Data, and Assessment, ‘Oh My!’ (3-5)

Presented By: Tracie Hacker, Tracey Evans, Jamie Gilliam & Elizabeth Cupp

Room: Salon A

Description: No longer will you fear the Common Core Standards! Participants will receive proven, research-based strategies and assessments that will: ensure mastery of the standards, maximize instructional time, and demonstrate how to teach fractions conceptually.

Resources for Conducting Family Math Nights (General)

Presented By: Gwen Morgan, Angela Miller, Bereda Weddle, Dianna Hollen, Jaclyn Carroll, Kim Smith, Priscilla Clay, Suzanne Maynard, Tamara Stephens & Tonya Fox

Room: Salon B

Description: Math Intervention Teachers from around the state will display activities from their family math nights in a gallery walk format. Please come and browse through their exciting displays, obtain ideas on conducting your own family math night, and receive valuable handouts with family math night activities from each Math Intervention Teacher. You will leave with a wealth of ideas!

Life Without Regrouping (K-5)

Presented By: Melissa Dicken & Amanda Pasley Terry

Room: Salon C

Description: Do your students struggle with regrouping? If they do this session is for you! Many students struggle with regrouping but do they have to do the problems that way, we don’t think so! Come to find different strategies to ease the stress of regrouping for both the student and the teacher in a life without regrouping!

Fabulous, Friendly, Fun (9-12)

Presented By: Pam Wilson

Room: Salon D

Description: Getting students engaged in discussions, asking their own questions, wondering about the math before them can be tough. Join this session to experience classroom-tested strategies involving growth-mindset, music, movement, powerful problem-solving and reflections on learning to keep students moving forward. Return to class with student-ready tasks for developing conceptual understanding.

Personalizing Learning using the Flipped Classroom and Standards Based Grading (6-12)

Presented By: Natalie McCutchen

Room: Bluegrass

Description: In this session, participants will learn how to personalize learning using the flipped classroom and standards based grading. By using these initiatives together, teachers will be able to create personalized, differentiated learning that will help their students become fluent mathematical thinkers.

Functions - The Heart of Mathematics (9-12)

Presented By: Jay Schiffman

Room: Crimson Clover

Description: This presentation focuses on participants obtaining a deeper understanding of the function concept central to work in higher mathematics. The arrowed diagram, ordered pairs, and graph models will be discussed including special functions such as one-to-one, onto and bijective functions. The graphing calculator and group work will be included.



How Big is Big? Understanding the Big Ideas of Measurement (Pre-K)

Presented By: Jill Sapoznick

Room: Triple Crown

Description: This interactive session explores the big ideas of measurement. Participants engage with these ideas through activities using themselves and objects they have with them. We will discuss how to recognize when these same ideas arise in everyday life and how to amplify the math talk in these teachable moments.

Conference Session Details
Session #2
Monday at 9:25am-10:35am

Models to Facilitate Reasoning, Problem-Solving and Connect Number Sense to Algebra (6-8) ★

Presented By: Anne Burgunder

Room: Magnolia (1st Floor)

Description: Number sense was described by Howden (1989) as “good intuition about numbers and their relationships. It develops gradually as a result of exploring numbers, visualizing them in a variety of contexts, and relating them in ways that are not limited by traditional algorithms.” (p. 11) The methods many teachers learned in school are not the only ways of computing. We will build on basics using new tools (the open number line, area model and ratio table) to build number sense and lay a solid foundation for rational numbers and algebra.

Sowing the Seeds (Pre-K)

Presented By: Beth Meiman, Selisa Adams & Mary Helen Hodges

Room: Salon A

Description: Sowing the Seeds of Mathematical Fluency begins in Preschool with helping our students discover that mathematics is all around us! Come and discover how these eight interactive sessions address the Big Ideas necessary to nurture the numeracy foundation for successful mathematical growth.

Learning to Love Math: Developing Mathematical Fluency Through Curiosity, Flexible Thinking and Creativity (K-3)

Presented By: Karen Heavin & Chris Leverenze

Room: Salon B

Description: How can a teacher become comfortable teaching deep mathematical concepts through flexible thinking, curiosity and exploration? Children inherently approach learning with these very qualities but are eventually programmed to see mathematics as a system of rules and algorithms, fear of getting the wrong answer as well as confusion and a lack of confidence in their own reasoning processes. Math can become “fun” again if teachers allow themselves to rediscover their “inner child” enthusiasm and love of discovery for the unknown.

The Importance of Mathematical Fluency in the Areas of Multiplication and Division (3-5)

Presented By: Kim Elam

Room: Salon C

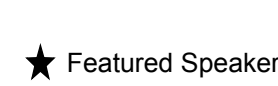
Description: Mathematical Fluency is of utmost importance in all grade levels but is especially important in the intermediate grade levels in the areas of multiplication and division. This session will explore developing a conceptual understanding in the early grades and building on this to aid students in becoming fluent in these areas.

From Algebra to PreCalculus, There is More to the Pythagorean Theorem than First Encountered (9-12)

Presented By: Jim Moore

Room: Salon D

Description: How does starting with the overly familiar Pythagorean Theorem help deepen the understanding of several other mathematical concepts? What is its connection to the Fibonacci Sequence, the area of any planar region, the diagonal of a rectangular solid and its three dimensions, trigonometric functions or the British Flag Theorem? Let’s explore!



Conference Session Details
Session #2 Continued
Monday at 9:25am-10:35am

Intelligent Adaptive Technology: Empowering Teachers to use Actionable Data (PreK-6)

Presented By: Kimberleigh Dubois

Room: Bluegrass

Description: During this presentation we will discuss various scenarios for a blended classroom environment, as well as discuss the impact it can have on our students. As we explore a blended classroom, we will also discuss different types of technology we can incorporate into the classroom for increasing personalized learning, as well as how that technology can provide relevant and actionable student data. As we review data itself, we will discuss various scenarios for increasing differentiated instruction, as well as preparing our students for CCSS assessments.

Limit - The Center of The Calculus (13-16)

Presented By: Jay Schiffman

Room: Crimson Clover

Description: The concept of limit is often misunderstood by both high school and undergraduate students and requires a fair degree of mathematical sophistication. This hands-on presentation will enable participants to achieve an understanding of limit via multiple representations connecting limits with precalculus ideas such as asymptotes and end behavior.

Handling Hundreds (K-3)

Presented By: Mary Beth Barber & Cindy Aossey

Room: Triple Crown

Description: Have you ever heard a child counting say '107, 108, 109, ..1000'. Numbers beyond 100 are often a mystery for children. During this hands-on session, we will explore activities and games targeting counting, sequencing and other work with numbers within 1000. Standards targeted include 2.NBT.1 through 2.NBT.4, 2.NBT.8 & 3.NBT.1.

Conference Session Details
Session #3
Monday at 10:50am-12:00pm

Ideas + Tabs = Math Livebinder (3-5)

Presented By: Elaine Linder

Room: Salon A

Description: We will view and discuss a Livebinder full of resources, links, and tutorials for Elementary Math. All math teachers have those backburner activities and ideas to pull out just when needed. Wouldn't it be great if they were all in one place and easy to access? This Livebinder has a variety of resources and internet sites to use at that teachable moment. Math apps for the Ipad will also be discussed. I would love for this to be a share session as well. Let's all learn from each other.

Linear Measurement...It's Not Easy! (K-5)

Presented By: Helen Blevins & Suzanne Farmer

Room: Salon B

Description: Improve your instruction of measurement. We will use the CCSS to guide a progression of using linear measurement understanding and common misconceptions. Participants will try instructional activities that have been used with students and come away with new ideas to tackle a difficult concept.

Developing Fraction Sense (3-5)

Presented By: Karen Campbell

Room: Salon C

Description: Developing fraction sense is a key precursor to fraction fluency. This session will provide simple suggestions that can make a big impact on student learning. This session is a discussion/lecture, demonstration/hands on opportunity so come prepared to watch and participate.



Conference Session Details
Session #3 Continued
Monday at 10:50am-12:00pm

Building a Bridge to Fluency (K-5)

Presented By: Emily Pierson, Betsy Biddle & Lisa Stuckey

Room: Salon D

Description: After a brief overview of the basic components of number sense, we will discuss the progression of the Common Core Standards from kindergarten to fifth grade and activities that apply to each component. Participants will leave with a wealth of ideas and materials to support development of student growth and fluency.

Instructional Design for Math Achievement: Practical Solutions for Transforming Mathematical Thinking in the World of the Common Core (K-8)

Presented By: Marilyn Trow

Room: Bluegrass

Description: Preparing students for the challenges of 21st century college and career is an important priority for the Commonwealth of Kentucky. The most challenging shift that the Common Core has created for teachers is an instructional shift, moving away from an "answer getting" focus to a one of "learning" mathematics. This means teaching for understanding and structuring instruction in ways that develop abstract reasoning and thinking skills—the ultimate goal of the Common Core and what is meant by college and career ready. This interactive session will make the differences in instruction apparent and point to solutions to making the shift.

Constructions, Circles, Similarity, and Proofs with GeoGebra and Cabri Jr. (9-12)

Presented By: Tim Truitt

Room: Crimson Clover

Description: Find out how the dynamic geometry programs GeoGebra and Cabri Jr. can be used to perform geometric constructions. Then, examine connections between constructions, similar figures, circles, and proofs. We'll focus on the Common Core State Standards for Mathematics, grades 9 through 12.

Common Core 'A BUD-ing STEM' (Building, Understanding and Developing- Science, Technology, Engineering and Mathematics) (6-8)

Presented By: Alvia Littleton

Room: Blackberry Lilly

Description: Mathematical fluency occurs when learning goes from the concrete to the abstract. A'BUD-ing STEM' provides a natural integration of Science, Technology, and Engineering into Mathematical lessons to facilitate fluency. This presentation supports the mathematical practices through real-world connections and hand-on teaching strategies incorporating expressions, equations, geometry and statistics standards.

Early Algebraic Thinking: Mathematical Glue (K-5)

Presented By: Carolyn Olijnek

Room: Triple Crown

Description: Children's natural powers of imagery, noticing, conjecturing and convincing, classifying and characterizing require being exercised and made explicit to improve mathematical thinking. Participants will engage in adult learning opportunities and explore K-5 activities that facilitate early algebraic thinking while building on children's natural powers.

It's Story Time! (LEGO Story Time) - Engaging Students to Solve and Create Story Problems with Fluency & FUN! (K-2)

Presented By: Shelley Dickson

Room: Magnolia (1st Floor)

Description: Fluency doesn't mean 'FAST'! Yes, automaticity is important, but Problem Solving Practice also leads to Fluency! In this session, you will learn about the 12 types of addition & subtraction situations in the CCS, then... WE GET TO PLAY!!! Using LEGO mini-figures and props you will learn how to create your own story problems. Come play with us!



Conference Session Details
Session #4
Monday at 1:15pm-2:25pm

Key Aspects of Mathematics Teacher Preparation (13-16) ★

Presented By: Denise Spangler
Room: Magnolia (1st Floor)
Description: We will consider essential elements of teacher preparation if teachers are to set a course for mathematical success for their students. Topics will include innovative activities or formats for teacher education, what research tells us and where we need more research.

Fractions, Decimals, Percents, Oh My!! (3-5)

Presented By: Misty Brock & Jodi Winchester
Room: Salon A
Description: Do your students struggle with fractions and decimals, and can't quite figure out the percents? There's hope. Their struggles can be addressed by simplifying the concepts with manipulatives. Let the students learn while they play.

Making Sense of Math: Using the Five Senses to Discover Mathematics (K-3)

Presented By: Selisa Adams, Beth Meiman & Toni Newton
Room: Salon B
Description: Imagine a world without sights, sounds, tastes, feelings of objects, and the aromas of our environment. This is what math is like in some classrooms. In this presentation participants will discover how the five senses can empower the whole child through math centers. Please join us and discover math in a whole new sense..

Fractional Fluency - More Than Speed (3-5)

Presented By: Karen Campbell
Room: Salon C
Description: You know the students multiplied and divided fractions last year, so why are they staring at you like they've never seen this before? Conceptual understanding of multiplication and division of fractions (yes, more than following an algorithm) impacts fractional fluency. Come look at fractions differently. Session appropriate for MS, too.

How Can a Number Line Be Used to Develop Algebraic Thinking? (6-9)

Presented By: Robin Hill
Room: Salon D
Description: Participants will walkthrough how students in elementary grades use the number line to begin to build an understanding of the number system. Then, participants will explore how to use an open number line (register tape) as a concrete model to build conceptual understanding of expressions, rational numbers and equations, key concepts in developing algebraic thinking.

Creative Integration of CCSS Math Practices, Quality Activities, Excellent Questioning Techniques, Pertinent Technology (9-12)

Presented By: Tom Reardon
Room: Bluegrass
Description: Incorporate CCSS Mathematical Practices into your students' learning with these rich activities that can be used at various grade levels. Questioning techniques that create more engaging discussions will be illustrated. Get hands-on experience with graphing calculators and also see with an iPad app. Walk away with all the activities demonstrated.

Math Fluency=Original Children's Literature+Problem-Based Learning (K-5)

Presented By: Susan Blevins, Olivia Clarkson & Kelsie Doss
Room: Blackberry Lilly
Description: Presentation based on student teachers sharing their experiences of writing their own math children's stories and using those stories to teach problem-based lessons during their clinical experience. Research indicates that math skills can be supported with children's stories.



Show Me the Way (K-5)
Presented By: Suzanne Farmer & Helen Blevins
Room: Triple Crown
Description: Learn how a project has improved classroom mathematical conversations, parent involvement, community support, and student mathematical thinking using free apps and platforms. Participants will learn how to use the apps Show Me, a QR code generator, and the platform Sophia to replicate the project, or create a new project.

Conference Session Details
Session #5
Monday at 2:40pm-3:50pm

Moving Beyond Repeated Addition and Subtraction (3-5) ★

Presented By: Lucinda "Petey" MacCarty & Kurt Kinsey
Room: Magnolia (1st Floor)
Description: Why is it many students are often limited to a strategy of repeated addition or subtraction for multiplication and division? How can we design instruction to help them move beyond these strategies? We will examine answers to these questions, as we explore developing efficacy with multiplication and division tasks.

Nurturing Mathematical Behavior With Liar's Bingo (9-12)

Presented By: Catherine Pullin Lane, Shelly Harkness & Jonathan Thomas
Room: Salon A
Description: In this interactive presentation, participants will engage in "Liar's Bingo", an activity that encourages students to engage in mathematical reasoning and creativity. This activity is accessible to students ranging from 9 – 16. Presenters will also share their experiences of using the activity in their own classrooms.

I Disagree with Myself: My Journey with Number Talks (K-3)

Presented By: Nick Harris
Room: Salon B
Description: Have you ever done a number talk? Come to this session to experience a number talk, see video from my classroom number talks, and find out how i have adapted them to encourage deep strategy-based thinking in my second grade classroom.

Teaching Mathematics with Technology (General)

Presented By: Leah White & Shannon Stone
Room: Salon C
Description: This presentation will communicate core ideas of integrating technology into mathematics. Session leaders will discuss various practical and realistic ways to integrate technology into mathematics. Demonstrating various technologies will help participants gain understanding how to apply technologies into their own classroom. Participants will then work within their own grade-groups to look at grade appropriate standards and align which technologies could work successfully.

Ratios & Proportions - Leading to Function Fluency (6-8)

Presented By: Teresa Emmert, Debbie Waggoner & Krista Hall
Room: Salon D
Description: How are our traditional ratio & proportion resources holding us back? What opportunities are students missing when we only use these types? Proportional reasoning has been referred to as the capstone of elementary and the cornerstone of algebra. This session will explore ratio & proportion resources to build a foundation for functions.

Building Links Between Addition and Subtraction: Concepts and Number Facts (K-3)

Presented By: Rob Nickerson
Room: Bluegrass
Description: Addition and subtraction are closely linked. This session will demonstrate strategies that can be used to reinforce the connection between these operations and to develop flexible thinking. In particular, the session will show practical ways to develop number facts for both operations through the use of visual materials and games.



Conference Session Details
Session #5 Continued
Monday at 2:40pm-3:50pm

Problem-Based Learning + Exceptionality = Student Success (General)

Presented By: Jennifer Woodruff & Lynn Woolsey

Room: Crimson Clover

Description: Students with exceptionalities often struggle with solving problems in math. Teachers often search for successful strategies to support student learning. Presenters will begin with an overview of problem-based instruction integrated with children’s literature. Sample lessons, demonstrations and data will be shared. Struggling math students can succeed!

I Spy with My Little Eye... Patterns All Around (Pre-K)

Presented By: Chad Malcolm & Jennifer Powell

Room: Triple Crown

Description: This workshop will be presented by Chad Malcolm, Ed.D. from St. Catharine College in Kentucky and Jennifer Powell, from the Pittsburgh Public Schools, and explore the intricate web of patterns that fill our world and our curriculums. Patterns are the foundation of algebra and should begin in infancy and spiral through the curriculum to kindergarten and beyond.

Conference Session Details
Session #6
Monday at 4:05pm-5:15pm

Making Fractions Come Alive and Make Sense in the Middle Years (5-8)



Presented By: Doug Clarke

Room: Magnolia (1st Floor)

Description: Fractions is one of the most difficult topics to teach and to learn in the middle years, but it doesn’t have to be that way. In this workshop, we’ll explore the “big ideas” of fractions, and look at some very helpful assessment tasks for gauging what students know and can do in this area. We will then focus on a range of powerful classroom activities that build confidence and capability with fractions. We’ll eat chocolate (in the interests of science!) and we’ll have fun too.

Numeracy with Pizazz! (Pre-K)

Presented By: Donna Howard

Room: Salon A

Description: This presentation will focus on mathematical strategies that will provide preschool students with a good foundation in early numeracy which will enable them to fluently add and subtract to 5, which is the fluency benchmark for kindergarten. Participants will explore ways to provide a deep understanding of quantities to 5 through subitizing regular and irregular dot patterns, using finger patterns and bead racks, and using familiar children’s literature books to enhance mathematics instruction.

Serious Fun in the Mathematics Classroom: Practical Strategies to Motivate and Engage Students (General)

Presented By: Kim Loucks & Carolyn Hirst-Loucks

Room: Salon B

Description: Attendees will explore instructional strategies that make learning math motivating, more productive and enjoyable for students (and their teachers!) Students will be more actively engaged because of the brain compatibility of these learning activities, which build fluency, academic success and social skills at the same time. Join us and make mathematics more fun and effective.

The Statistics of the Hunger Games (6-8)

Presented By: David Atwood

Room: Salon C

Description: Using the book “The Hunger Games,” participants will become fluent with common core probability and statistics in the middle school grades through hands on activities.

Be Fluent: Connecting Multiplication and Division (3-5)

Presented By: Rob Nickerson

Room: Bluegrass

Description: Simple visual aids and models should be used to help students form a mind picture that links to the thinking strategy. This session will demonstrate the use of these aids and show how the thinking strategies can be generalized and extended beyond the number fact range.

Statistical Inference Based on Simulation (9-16)

Presented By: Brooke Buckley & Nolan Boone

Room: Blackberry Lilly

Description: The statistics standards in the Common Core emphasize the use of simulation for statistical inference. This presentation will investigate the use of simulation in statistical inference through the discussion of a question from the 2009 AP Statistics Exam.

RTI 101: Discussing the Ins and Outs of Response to Intervention (K-5)

Presented By: Toni Newton & Selisa Adams

Room: Triple Crown

Description: Response to Intervention is on everyone’s mind lately. It is our goal to ease the minds by sharing and discussing strategies, forms, and graphs with the participants that will show how fluent a student is in grades kindergarten thru second. No teacher will need intervention for RTI after this session.

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- Access to online resources via the KCTM website
- Annual Fall Conference
- Mathematics Education Service and Achievement (M.E.S.A.) awards and banquet
- Classroom Teacher Support Grants
- Newsletter (on website) twice a year
- Email blasts of what's new in math education
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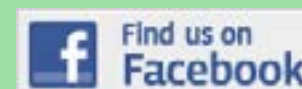
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Local Chapter Affiliates

- Big Blue Council of Teachers of Mathematics (BBCTM)
- Cumberland Council of Teachers of Mathematics (CCTM)
- Eastern Kentucky Council of Teachers of Mathematics (EKCTM)
- Greater Louisville Council of Teachers of Mathematics (GLCTM)
- Kentucky Mathematical Association of Two-Year Colleges (KYMATYC)
- Lexington Council of Teachers of Mathematics (LCTM)
- Northern Kentucky Council of Teachers of Mathematics (NKCTM)
- Western Kentucky Council of Teachers of Mathematics (WKCTM)



Conference Session Details
Session #1 & #2 (Open Forum)
Tuesday at 8:00am-10:35am

What Works for RTI: Models of Successful Elementary Grades Tiered Mathematics Intervention (8:00am-10:35am)

Moderated By: Alice Gabbard

Room: Salon B

Description: Hear from a panel of distinguished principals, mathematics intervention teachers, and classroom teachers from high-achieving Kentucky mathematics elementary schools in Murray Independent, Scott County, and Anderson County about their successful implementation of tiered mathematics intervention. Learn about strategies and structures that support sustained professional learning and collaboration allowing teachers to effectively provide differentiated instruction at all tiers of RTI (Response to Intervention), based on student need and readiness.

Conference Session Details
Session #1
Tuesday at 8:00am-9:10am

Look For and Make Use of Structure (9-12) ★

Presented By: Ellen Whitesides

Room: Magnolia (1st Floor)

Description: It's one of the eight standards for mathematical practice and a domain in the Algebra conceptual category (seeing structure in expressions), so what is it exactly? What does it mean and how can we foster this practice in our students? We will look at example tasks for the classroom from illustrativemathematics.org as well as trace ideas as they emerge from the middle grades into high school. Our primary focus will be the high school classes of Algebra and Geometry.

Fun with Subitizing!! A Critical Foundation for Developing Fluency in Number for Students (K-3)

Presented By: Beth Prather & Sharon Hurt

Room: Salon A

Description: Participants will discover ideas on how to incorporate subitizing activities during calendar time, transitions, and morning meeting. A strong foundation in conceptual subitizing help young children achieve mastery in spacial patterns and develop number knowledge for arithmetic processes. This will be a 'Make and Take' workshop so participants will be able to quickly make and take back materials ready to use with their students!!!

The Art in Math (K-5)

Presented By: JoLin Owens & Selisa Adams

Room: Salon C

Description: We will explore ways that you can include arts and humanities into your math lessons. We will explore areas of visual arts, music, dance, and drama.

Adding and Subtracting Integers - More than a Negative Experience (6-8)

Presented By: Karen Campbell

Room: Salon D

Description: Operations with positive and negative integers is a foundational skill for algebra. Together we will explore number lines, games and manipulatives that will help you build your students' confidence and fluency with integers. Session may be appropriate for HS too.

The NUMBER LINE? For Addition? Subtraction? Multiplication? Division? HOW? (3-5)

Presented By: Charlene Ruble

Room: Bluegrass

Description: Why does the Common Core keep suggesting we use number lines to teach basic fraction operations over and over? What's the BIG DEAL? It must be the accessibility and versatility of this quick-to-draw and dependable model. Join the fun as we practice developing fraction number sense and intuitions using the number line. Sharp pencils are encouraged.

Mathematics Across the Curriculum: Making the Connection with Math and Economics (K-5)

Presented By: Erin Yetter

Room: Crimson Clover

Description: Mathematics and economics go together like peanut butter and jelly, but they are often taught as exclusive subjects—why? This session will show how to add application and 'real world' learning to your math classroom by integrating economics. All participants will receive printed curriculum materials with whiteboard applications.

Ethnomathematics: A Culturally Supportive Approach to Increase the Motivation and Engagement of Middle School AA Males (6-8)

Presented By: Timothy Forde

Room: Blackberry Lilly

Description: This paper explores the use of an ethnomathematical approach to build mathematical fluency to middle school African American males. Through culturally supportive activities students are taught to interpret their environment using real world numbers that show school, state or national community statistics detailing differences by race and socioeconomic status.

Investigate! Engaging Children in Real-World Mathematical Applications Using the Project Approach (Pre-K)

Presented By: Elizabeth McLaren

Room: Triple Crown

Description: Want to engage preschool children and help them truly understand and apply mathematical concepts rather than learn rote skills? This presentation will illustrate the fundamentals of using the Project Approach and how to embed real-world application of math concepts into in-depth investigations.

Conference Session Details
Session #2
Tuesday at 9:25am-10:35am

Preschool Play-Based Math Assessment (Pre-K) ★

Presented By: Sally Moomaw

Room: Magnolia (1st Floor)

Description: This presentation examines a play-based, validated measure of number sense that was used to evaluate a preschool math intervention program. Math coaches worked weekly with teachers and families to implement a game-based curriculum that focused on quantification, counting, comparing sets, understanding numerals, and emergent addition. Techniques and results will be shared.

10 Times the Fun and Half the Time.....THAT'S FLUENCY! (3-5)

Presented By: Tonda Thompson & Jean Bingham

Room: Salon A

Description: Participants will learn different strategies that enhance multiplication and division. Some of the strategies include using known facts to multiply and divide, array models, and equal groups. Everyone will enjoy the make and take ready to use as they return back to their classrooms.



Conference Session Details
Session #2 Continued
Tuesday at 9:25am-10:35am

Fractions, Decimals, and Percents-RTI for Middle/High (4-12)

Presented By: Ann Booth & Vonda Stamm

Room: Salon C

Description: Students who do not understand the relationships between Fractions, Decimals, and Percents continue to struggle with their application throughout secondary math courses even though they have been repeatedly exposed to their algorithmic manipulation. This session will focus on physically representing the relationships between Fractions, Decimals, and Percents so students have visual models and strategies for working with these numbers.

Fun With Fluency (K-3)

Presented By: Amanda Davis & Barbara Heltsley

Room: Salon D

Description: Come experience how important fluency is in teaching students critical common core math content. Create make-it take-it made manipulatives that will be ready to use when you return to the classroom after the conference.

Beyond Cookies: Understanding Various Division Models (K-3)

Moderated By: Robin Magruder

Room: Bluegrass

Description: Through an interactive approach involving manipulatives, we will build teachers' understanding of division, emphasizing partitive and measurement models. We will offer a rationale for examining division, describe the models, and provide an opportunity to increase understanding of the models. We will also provide strategies for writing high-quality division story problems.

PAction: Purposeful Action Marks a Math-Minded School (3-5)

Presented By: Jane Hunt

Room: Crimson Clover

Description: The session will mainly be a discussion of the philosophy and activities associated with becoming a Math-Minded School. We will explore the 'purposeful actions'(PAction) that can be taken to infuse mathematics throughout the school day in meaningful ways. (Based on my NCTM regional presentation in Louisville).

Fluency Forward: Intervention Success (9-12)

Presented By: Kelly Fithen, Maggie Doyle, Kris Ann Creteau & Christy Williams

Room: Blackberry Lilly

Abstract: Intervention Success will thoroughly explain our trials, errors, successes and events that are leading us to pushing the envelope of fluency forward. At GRC, we are continually striving to prepare students so that they are College and/or Career Ready. Intervening at every level is proving to be our key to unlocking the doors that prevent fluency forward. Join us as we share our successes into pushing fluency forward.

Inclusion Classroom Math? The Story Starts Here.... (General)

Presented By: Lynn Woolsey, Shannon Gibson & Jennifer Woodruff

Room: Triple Crown

Description: Incorporating story problems as a foundation to teaching math problem-solving to students with intellectual disabilities challenges many general education teachers. Presenters will provide video, story problem-based strategies and examples to adapt lessons to meet the needs of the students and support them as they attempt to meet KCAS.

Conference Session Details
Session #3
Tuesday at 10:50am-12:00pm

Building Fluency Through the Use of Mathematical Models in Applied Contexts (9-12)

Presented By: Mindy Curless & Leslie Texas

Room: Salon A

Description: Modeling is integral to CCSSM as well as NGSS because it is fundamental to STEM as reflected in the practices for each discipline. Varied modeling experiences with typical relationships (linear, power, exponential) develops fluency. Fluency in developing and interpreting models develops highly valued STEM dispositions.

Computation with Meaning-Addition and Subtraction (K-3)

Presented By: Rhonda Allen Burns & Tami Pickett

Room: Salon B

Description: Often Place Value and Computation are taught as two separate concepts. Students are taught "rules" for addition and subtraction, but do not understand the concepts behind the composition and decomposition of numbers. This session will focus on understanding Computation with Respect to Place Value (and Composing/Decomposing Numbers) to give students multiple strategies/models (including the Open Number Line) for adding and subtracting numbers.

Computation with Fractions (4-6)

Moderated By: Vonda Stamm & Ann Booth

Room: Salon C

Description: This session will emphasize developing conceptual understanding of Computation with Fractions. Multiple experiences in physically modeling and sense-making with fraction computation problems will give students strategies for problem solving and transferring their understanding to symbolic notation.

Building an Effective Tiered Model in Mathematics (K-8)

Presented By: Susan Robertson & Melissa Wainwright

Room: Salon D

Description: During this session, participants will be provided a framework to help analyze a tiered model for math. Through tiering of instruction, schools can then identify gaps in learning and implement various strategies to ensure all students are receiving quality math instruction.

When Life Gives You Beads, String 'Em! (K-3)

Presented By: Regina Harrison & Mary Helen Hodges

Room: Bluegrass

Description: "I would like to use empty number lines, but my kids just don't get it." Sound familiar? This session will show you how to lay a foundation for the empty number line progressing from the bead string to the number line, and finally, the empty number line.

AVMR Champions and Teachers: Updated Structuring Assessment (K-5)

Presented By: Lucy Anderson & Kelly Livers

Room: Crimson Clover

Description: The US Math Recovery Council updated the Structuring Assessment in 2013. The levels have been aligned with the Math Recovery Intervention levels. Tasks and questions that involve bead racks and base numbers to 20 have also been added.

Flipping the Classroom - Using Videos to Teach Algebra (9-12)

Presented By: Kelly Lindsey, Linda Pleli, Theodore Hodgson & TJ Murphy

Room: Blackberry Lilly

Description: As part of a project at Northern Kentucky University, we are using video podcasts to help teach Algebra. We will explain how we made our videos and how we use them as homework to introduce concepts that are later explored in depth in class. With the help of Theodore Hodgson and TJ Murphy, professors at NKU, we will show how anyone who is a little brave can use this technique to enhance learning.



Conference Session Details
Session #3 Continued
Tuesday at 10:50am-12:00pm

Math Congress: Honoring Student Voice in the Math Classroom (3-5)
Presented By: Angie Keene & Jamie Keene
Room: Triple Crown
Description: Integrate the mathematical practices into your math classroom by using the Math Congress teaching strategy. Promote meaningful discourse to develop deep understanding and build mathematical fluency.

Using Models and Representations to Support Learning (K-5)
Presented By: Barbara Clarke
Room: Magnolia (1st Floor)
Description: Models and representations provide important opportunities to support children’s learning in mathematics. In this workshop a number of classroom activities from the Australian context that use models or representations will be shared.

Conference Session Details
Session #4
Tuesday at 1:15pm-2:25pm

It’s Not Too Late: Number Intervention with Students (5-8) ★
Presented By: Kurt Kinsey & Lucinda “Petey” MacCarty
Room: Magnolia (1st Floor)
Description: When middle grades students continue to struggle with basic facts and arithmetic, is there still hope? The answer we are finding is yes! Our recent work to address the underlying issues through developing middle school interventionists helps students unravel the mystery of number and gain access to grade-level content.

KY STEMx Network; The STEMx Performance Guide; Does STEMx Accurately Reflect the Role of Mathematics in STEM Education? (General)
Presented By: Mindy Curless & Eve Proffitt
Room: Salon A
Description: This session will share strategies of the KY STEMx Network for improving KY STEM education, as well as a draft Performance Guide intended to help all stakeholders systematically increase their impact on STEM education. Input from the KY mathematics education community is a critical need as KY STEMx moves forward.

Algorithm or Strategy? What do the Standards Say? A Focus on Teaching Addition (K-3)
Presented By: Melissa Buchanan & Cindy Aosse
Room: Salon B
Description: What is the difference between an addition strategy and an algorithm? How are these terms used in the standards? How are both related to place value understanding and computational fluency? Join the discussion, then stay for great instructional activities using linear settings targeting standards 1.OA.6, 1.NBT.4, 2.OA.2, 2.NBT.5 and 2.MD.6.

Understanding Fractions (3-4)
Presented By: Tami Pickett, Rhonda Allen Burns, Ann Booth & Vonda Stamm
Room: Salon C
Description: This session focuses on the conceptual understanding of fractions by first making sense of fraction names, representations, and relationships. Strategies and examples for modeling, composing/decomposing, and reasoning about fractions (part-whole and whole-to-part perspectives, equivalency, comparisons, etc.) are shared as students are given opportunities to communicate their understanding of fractions in a variety of experiences.

Independent Fluency Work in the Math Classroom (K-5)
Presented By: Emily Ellsworth & Sarah Smorstad
Room: Salon D
Description: Learn strategies to teach your students to work independently at their own math levels to increase fluency in the classroom. Come and see how to organize your materials and even implement technology into your math fluency program.

Using Blended Learning to Drive Math Fluency (6-8)
Presented By: Brad Hilton
Room: Bluegrass
Description: This presentation will be a highly participatory experience. First, the full group will try out some technology-enabled learning experiences for both students and teachers (using School 21 as an example). Then each small group will work together to develop 2-3 Blended Learning Classroom models, and report back to the full group. Throughout, the facilitator will engage participants to promote a dialogue that generates creative ideas from the audience.

When is an Octagon a Circle? In Chinese Checkers Geometry! (9-12)
Presented By: Carolyn Keeler & Bethany Noblitt
Room: Crimson Clover
Description: Chinese Checkers (CC) Geometry is a non-Euclidean geometry that is accessible to secondary students. Participants will explore the CC metric, its consequences, and how CC geometry can be explored in the classroom. Questions addressed include: What is pi in CC geometry? What do conic sections look like? What about right triangles?

Let’s Talk About It! (K-5)
Presented By: Emily Wisher
Room: Triple Crown
Description: This session will be an overview of Number Talks in the elementary classroom. We will review hand signals, strategies, and the importance of student discussion in the math classroom.

Conference Session Details
Session #5
Tuesday at 2:40pm-3:50pm

Professional Noticing: Expanding the Lens (K-5) ★
Presented By: Jonathan Thomas
Room: Magnolia (1st Floor)
Description: Professional Noticing is an emerging framework which describes responsive teaching practices including teachers’ ability to attend to, interpret, and respond appropriately to the mathematical thinking of children. Although professional noticing is typically theorized at the level of the individual student, this framework may also influence small group and whole-class instruction. The goal of this session is to consider the applications of professional noticing across a variety of contexts (1-1, small group, and whole class). Specifically, participants will practice attending to the nuances of children’s actions and words as they solve mathematical tasks, interpreting this information in the context of the mathematics, and making targeted instructional decisions to scaffold children along the common progressions of learning.

A Product of Fluency (3-5)
Presented By: Laura Smith, Katrina Brown, Kim Warford & Lauren Case
Room: Salon A
Description: School Growth was achieved with a focus on fluency. Through the use of sprints, skip counting, word problems, and small group hands on activities the presenters will demonstrate strategies used to increase student achievement.

Conference Session Details
Session #5 Continued
Tuesday at 2:40pm-3:50pm

Meeting the Common Core’s Math Fact Fluency Challenge with Reflex (3-5)
Presented By: Jane Owen
Room: Salon B
Description: What is math fact fluency? What method for developing fluency will promote automaticity across a broad range of students? What if we could solve the problem of math fact fluency in just 10 minutes per day? Come and see Reflex – a new online product from ExploreLearning, makers of Gizmos.

Strategies for Encouraging Students to Persist When Working on Cognitively-Demanding Tasks (4-8)
Presented By: Doug Clarke
Room: Salon C
Description: We have been working alongside teachers and students as they use cognitively demanding tasks in mathematics. In this workshop, I will share examples of such tasks, and insights from teachers on how to support student persistence during their work on these.

A Mastery Approach to Unit Tests (6-8)
Presented By: Jill Kidder, Kegan Nall & Sammy Hall
Room: Salon D
Description: We will share how we use a cover page for unit tests to help analyze assessment results and drive student opportunities for reassessment. The development and use of this cover page includes linking the test to learning targets, analyzing assessment results, and creating additional opportunities to reach mastery.

“My Brain Is a Traffic Jam”: Helping Students to Understand and Manage Test Anxiety (General)
Presented By: Bill Phelps
Room: Bluegrass
Description: Test anxiety is a major problem that many students face. This session will discuss what we know about test anxiety and will be an opportunity to talk about effective strategies that we can teach our students to help improve their performance on exams.

Creatively Integrate iPad Math and Presentation Apps Into Your 7 - 12 Classroom (7-12)
Presented By: Tom Reardon
Room: Triple Crown
Description: Take photos with your iPad and immediately model the curves with an equation or a geometric figure! Obtain and “play” over 1000 FREE interactive classroom ready activities – including teacher notes & solutions for grades 7 – 12. Learn how to cleverly utilize and integrate these apps for student success: Reflector, Splashtop, Dropbox, and TI-Nspire.

Conference Surveys

One of the most important parts of our annual conference each year is receiving the incredibly valuable feedback of the attendees. It is because of your comments and evaluations that we are able to continue to improve how we serve you each and every year.

We encourage you to fill out a brief evaluation form concluding each of the breakout session presentations you attend. Evaluation forms can be found in the back of each presentation room. Completed forms can either be turned in to the room monitor or to the conference registration table, located at the top of the escalators.

In addition, each conference attendee will receive a survey link to evaluate their overall conference experience via email after the conference is over. Interested participants will be entered into a drawing for a Barnes & Noble gift card as a thank you for their participation in the survey process. We look forward to receiving your feedback.



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Thank you!
-The KCM Staff

