



# KENTUCKY CENTER FOR MATHEMATICS



## ***KCM Numeracy Conference***

**March 5-6, 2009  
Louisville, KY**

*Kentucky's Kids Count*









## Welcome to the KCM Numeracy Conference

As Executive Director of the Kentucky Center for Mathematics (KCM) it is my pleasure to welcome you to the KCM Numeracy Conference.

The KCM's third birthday was on March 1, 2009. During our first three years we have had the privilege of working with schools in 79 of Kentucky's 120 counties. This has afforded us the opportunity to see closely the wonderful work being undertaken by teachers and the impact of this work on students. This conference is a way by which we can showcase and celebrate your work. We hope that you will find the meeting productive and useful.

The number of registrants has far exceeded our expectations. This, I believe, is a testament to the commitment educators and policy makers in Kentucky have made to ensuring that Kentucky's students receive the best possible education in mathematics and that teachers receive the support needed to undertake their work. We look forward to continuing to partner with you to help students as they strive to be successful in their education.

Kirsty Fleming  
Executive Director

## About KCM

Drawing on the expertise and research of mathematics educators and mathematicians, the Kentucky Center for Mathematics supports diverse teacher and student populations across the Commonwealth by facilitating the development of mathematical proficiency, power for future success, and enjoyment of teaching and learning mathematics.

### Diagnostic Intervention



The goal of the state mathematics diagnostic intervention program is to expand the capacity of teachers to assess a child's current status and adjust instruction accordingly.

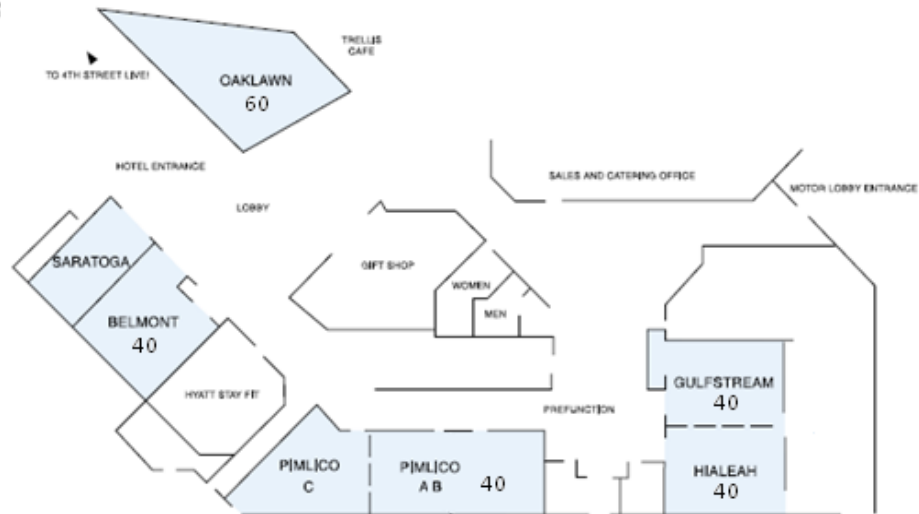
### Mathematics Coaching



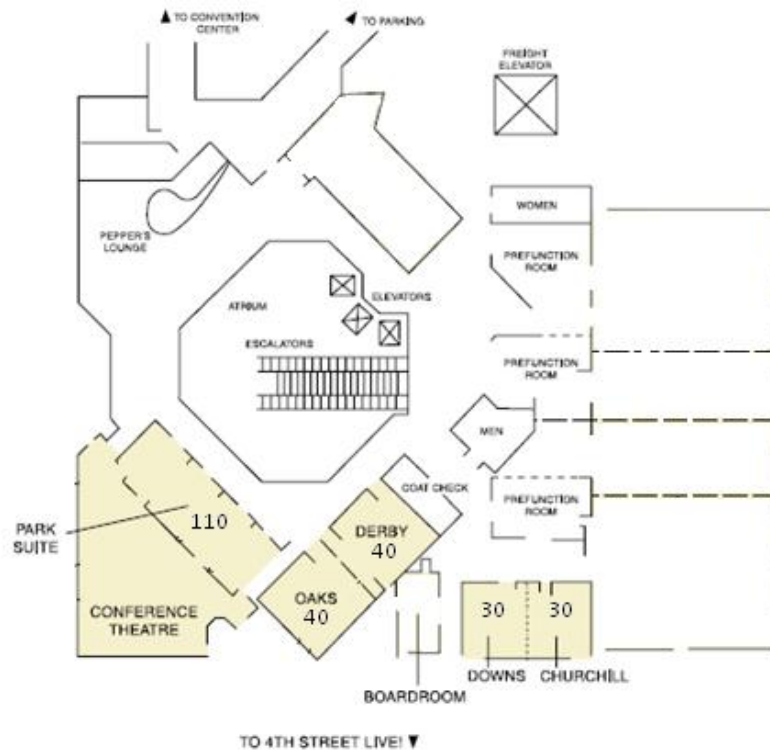
The goal of the state mathematics coaching program is to train coaches to assist their peers in taking instructional ideas and translating them into actions that improve student learning.

# FLOOR PLAN

## FIRST FLOOR



## SECOND FLOOR



## CONFERENCE SCHEDULE


<i>Thursday, March 5<sup>th</sup></i>	
8:00 - 8:30	Registration
8:30 – 9:45	Session 1
9:45 – 10:00	Break / Travel
10:00 – 11:15	Session 2
11:15 – 12:30	<i>Lunch</i>
12:30 – 1:45	Session 3
1:45 – 2:00	Break / Travel
2:00 – 3:15	Session 4

<i>Friday, March 6<sup>th</sup></i>	
8:00 - 8:30	Registration
8:30 – 9:45	Session 5
9:45 – 10:00	Break / Travel
10:00 – 11:15	Session 6

# Thursday, March 5th

## Session 1: 8:30 – 9:45




### FIRST FLOOR

Room	Session Title and Abstract	Presenter(s)
Oaklawn	<b>Who Needs Relationships? You do!</b> <i>Find out how, despite 22 Out of 40 students being assigned to alternative school, this group was able to make a 12 point gain in their CATS math scores. Building trust through personal relationships with students and methods of how to keep lines of communication open with parents, even in the most difficult situations will be discussed. Find out how to even use the "dreaded" cell phone to your advantage. These and many other methods of building personal relationships With both parents and students will be the focus of this program.</i>	Mark Ziegler <b>Holmes High School</b> <b>Covington Ind.</b>
Belmont	<b>Assessing and Developing Early Numeracy: It's a "SNAP"!</b> <i>This is an awareness session for participants to learn about assessing and developing early numeracy using SNAP (Student Numeracy Assessment Progressions) which is offered by the U.S Math Recovery Council. SNAP gives classroom teachers a clear understanding of where each of their students are developmentally in basic number sense skills and thus drives instruction. Three Kentucky Math Intervention Teachers are using this program as a means to assess primary students and also provide intervention support in the classroom that is relevant to RTI. They will share an overview of SNAP and information on how each school implements this program.</i>	Robin Swords, Dee Hilton, Melanie Christmas 
Pimlico A/B	<b>Mathematics and the Parent Connection: Making It Work</b> <i>In this session, participants will learn ideas and suggestions on ways parents can help their child with Mathematics. Participants will be given ideas on the types of questions parents should ask, games to play, and other strategies parents can use to help their child succeed in mathematics. This presentation is a result of the Mathematics Achievement Fund grant issued by the Kentucky Department of Education and supported by the Kentucky Center for Mathematics.</i>	Susan Robertson, Rick Reinle, Olivia Winkle 
Hialeah	<b>What is the Magic Number in Numeracy?</b> <i>The answer? The Number Ten! Or any number combination, which helps students gain a stronger understanding of numeracy. This session will present a variety of hands-on activities which help students move from a unitary to composite way of constructing meaning with numerals. Topics also included are various assessment and teaching strategies, which worked . . . and didn't work so well!!!</i>	Beth Meiman, Jamie Rigney 
Gulfstream	<b>Math is F.U.N.-Finding Understanding with Numbers</b> <i>This presentation will give strategies used in intervention programs that help bring an understanding of numbers. Kindergarten teachers and their students will be enlightened by the use of literature, songs, dot cards, and the use of other manipulatives. For grades 1-3, participants will be informed about addition and subtraction strategies using the open number lines, nice numbers, and other helpful tips in maximizing our math time with students.</i> <b>Also presented Friday, Session 5</b>	Jo Lin Owens, Sheila Samples, Selisa Adams 

# Thursday, March 5th

## Session 1: 8:30 – 9:45

### SECOND FLOOR






Room	Session Title and Abstract	Presenter(s)
Park Suite	<p><b>What Mathematics Do Teachers Need to Know and How Can Teachers Refine Their Expertise?</b></p> <p><i>The mathematical demands of teaching are significant. Yet our understanding of the mathematical knowledge and skill needed for teaching is still limited, and the courses and professional development offered to teachers often inadequately prepare them for this complex work. Using examples drawn from elementary school work on whole number operations and fractions, I will offer a practice-based conception of mathematical knowledge for teaching, characterize the specialized and unnatural nature of this knowledge, and outline a practice-based approach to developing and refining expertise in mathematics teaching.</i></p> <p><b>Also presented Thursday, Session 3</b></p>	<p>Mark Thames <b>Featured Presenter</b></p> 
Oaks	<p><b>Show and Tell: Daily Writing in Math</b></p> <p><i>This session will give a clear example of how to get your students writing about math every day. By using the Show, label, tell, underline method with a daily word problem, students begin to put their mathematical reasoning into word. This method can be simplified for younger students or students struggling to succeed in math; however, it is also individualized enough to challenge your gifted students.</i></p>	<p>Martha Nau <b>Warner Elementary</b> <b>Jessamine County</b></p>
Derby	<p><b>Fair Share Fraction Fun</b></p> <p><i>A true understanding of fractions should begin before the intermediate level. Come and experience lessons which are designed to develop a conceptual foundation for fractions at the primary level.</i></p>	<p>Tolene Pitts, Terry Parkey</p> 
Churchill	<p><b>The Teacher's Lounge</b></p> <p><i>This room has been reserved for participants to connect, share, relax, snack, take a break, etc. Enjoy!</i></p>	



# Thursday, March 5

## Session 2: 10:00 – 11:15





### FIRST FLOOR

Room	Session Title and Abstract	Presenter(s)
Oaklawn	<p><b>If you are what you eat does that mean I'm one-eighth cheeseburger?</b></p> <p><i>The media is constantly inundating us with statistics about increasing rates of obesity and diabetes in our society. The message is beginning to hit home with us as teachers and parents, but what about the children. The presenter will show a classroom project that allows students to explore, evaluate, and reflect all their nutritional decisions. You will be able to take ideas from this session and incorporate it into your own teaching setting. Appropriate for middle and secondary teachers.</i></p>	<p>James Stallworth</p> 
Belmont	<p><b>KCM Progress Points Project</b></p> <p><i>This session will provide participants an overview and background of the KCM Progress Points and an opportunity to discuss potential avenues for continued refinement. This beginning effort is designed to eventually offer possible answers to questions such as:</i></p> <ul style="list-style-type: none"> <li>• <i>What is the expected developmental trajectory for primary grades children?</i></li> <li>• <i>What is the sequence of specific foundational skills and concepts that underlie success at each grade level?</i></li> <li>• <i>How can we design cutting-edge instruction that is tailored for individual student need and is standards-based?</i></li> <li>• <i>How can we facilitate deeper understanding at each grade level in order to close gaps and give students a robust knowledge for advancing mathematical proficiency?</i></li> <li>• <i>How can we ensure that every child develops number sense?</i></li> <li>• <i>How can we merge the ACT College Readiness Standards, ADP ACHIEVE Benchmarks, NCTM Focal Points, KY Early Childhood Standards, KY Program of Studies, and other valuable international documents to provide a coherent, comprehensive curriculum?</i></li> </ul>	<p>Jonathan Thomas,</p>  <p>Laura Plante</p> 
Pimlico A/B	<p><b>In a First Grade Classroom</b></p> <p><i>Participants will learn how to effectively integrate technology with teaching strategies to use in daily math instruction. We will look at the NCTM standards on how to embed effective integration of technology and teaching strategies into daily math instruction. This session will focus on how to integrate web resources, the student response system and the school pad to enrich instruction. Everyone will have an opportunity to participate in activities that incorporate technology with hands-on math activities. Participants will gain knowledge and resources on how to use the instructional activities in their own classroom.</i></p>	<p>Krista Althausen</p> 
Gulfstream	<p><b>Math GAINS - Games and Activities for Improving Number Sense</b></p> <p><i>This session provides participants the opportunity to engage in math games and activities that focus on developing number sense in struggling primary students.</i></p>	<p>Nancy Applegate, Gwen Morgan, Wilma Rogers, Mary McWhorter, Stacey Prakash</p> 

# Thursday, March 5

## Session 2: 10:00 – 11:15








### SECOND FLOOR

Room	Session Title and Abstract	Presenter(s)
Park Suite	<b>Measuring Number Sense in Young Children</b> <i>This presentation documents research on a mathematics curriculum-based measure to assess the development of number sense in preschool children. The measurement tool was an interactive game, played between assessor and child. All six measurement variables made a significant contribution to number sense.</i>	Sally Moomaw <b>Featured Presenter</b> 
Derby	<b>Rational Number Project I and II</b> <i>Participate in lessons from an NSF funded project which takes a conceptual approach to teaching fractions versus the procedural textbook approach. (Grades 4+)</i>	Terry Parkey, Ann Booth 
Downs	<b>Kentucky's New Statewide Longitudinal Instructional Data System: KIDS</b> <i>Hear about Kentucky's dynamic, comprehensive resource containing a variety of accessible longitudinal demographic and performance data that can be used to determine what works and may drive systemic educational improvements.</i>	Robert Hackworth, Mary Lowe 
Churchill	<b>The Teacher's Lounge</b> <i>This room has been reserved for participants to connect, share, relax, snack, take a break, etc. Enjoy!</i>	

# Thursday, March 5th

## Session 3: 12:30 – 1:45






### FIRST FLOOR

Room	Session Title and Abstract	Presenter(s)
Oaklawn	<b>Doss High School Math Lab</b> <i>Don't confuse this with meth lab! There is nothing illegal here! Come and learn some new ideas and strategies for authentically engaging students in remediation. Be ready to have some fun.</i>	Erin Kenney,   Stacy Justus, Christina Punches
Belmont	<b>The Development of Conceptual Place Value Through Addition and Subtraction</b> <i>This session will present research from two classroom teaching experiments designed to explore the influence of different teaching procedures on the development of early conceptual place value and 2-digit addition and subtraction. Video clips will exemplify student problem-solving strategies and conceptual constructs. Instructional sequences and contexts will be explored.</i>	Pam Tabor  
Pimlico A/B	<b>21<sup>st</sup> Century Learning: The Student-Centered Mathematics Classroom</b> <i>Critical thinking, collaboration and the ability to problem solve are three of the most coveted qualities in today's workforce. We must equip our students with more than just the ability to listen to lecture and mimic the procedures that we call mathematics if we want them to be successful. In this short session we will answer the whys, hows and whens of creating your own 21st Century Classroom filled with collaborative, inquiry-based, problem solving where students are communicating about the mathematics that they are discovering for themselves.</i>	Kasey Bratcher <b>Green Co. Middle Green County</b>
Hialeah	<b>Data for Primary Grades Numeracy Instruction</b> <i>Where are they now? Where do I want them to go? How will I know when they get there? These are three of the four reflective questions for teachers (found in the Math Recovery Teaching and Learning Cycle) that require careful consideration when designing effective, cutting-edge instruction. Hear from several primary grades mathematics intervention teachers who have learned the importance of integrating assessment and instruction as they share their experience with a variety of specific assessments, including those used for universal screening, diagnosis, and progress monitoring.</i>	Linda Montgomery,  Kris Jarboe, Kathie Hamilton, Denise Bullock, Christie Gantt  

# Thursday, March 5th

## Session 3: 12:30 – 1:45

### SECOND FLOOR

Room	Session Title and Abstract	Presenter(s)
Park Suite	<p><b>What Mathematics Do Teachers Need to Know and How Can Teachers Refine Their Expertise?</b></p> <p><i>The mathematical demands of teaching are significant. Yet our understanding of the mathematical knowledge and skill needed for teaching is still limited, and the courses and professional development offered to teachers often inadequately prepare them for this complex work. Using examples drawn from elementary school work on whole number operations and fractions, I will offer a practice-based conception of mathematical knowledge for teaching, characterize the specialized and unnatural nature of this knowledge, and outline a practice-based approach to developing and refining expertise in mathematics teaching.</i></p> <p style="text-align: right;"><b>Also presented Thursday, Session 1</b></p>	<p style="text-align: center;">Mark Thames <b>Featured Presenter</b></p> 
Oaks	<p><b>Lessons and Opportunities for P - 8 Mathematics Intervention Teachers</b></p> <p><i>This session is for administrators and teachers who are interested in practical strategies for assessing and developing numeracy that have been learned through the state-wide intervention initiative. Also included will be a description of upcoming opportunities for preschool through grade 8 mathematics intervention professional development.</i></p>	<p style="text-align: center;">Alice Gabbard</p> 
Derby	<p><b>Everyone Passes Algebra</b></p> <p><i>Experience lessons from a multi-faceted approach to teaching algebra which encourages students of all learning styles to master the big ideas and concepts as they transition from number sense to algebraic thinking.</i></p>	<p style="text-align: center;">Jim Moore, Gloria Beswick</p> 
Downs	<p><b>Advancing Children's Math Skills Through Games and Effective Teaching Strategies</b></p> <p><i>Increase Mathematical thinking by strengthening a child's structure to 5 and 10 using an Arithmetic Rack and Dot Cards. Learn about commercial games to increase mathematical knowledge, as well as participate in making some math games to implement in the regular classroom. Using our strategies and activities Will ensure that each child takes math to the proficient level. The presenters have experienced this success in their school and will be sharing their techniques in this session.</i></p> <p style="text-align: right;"><b>Also presented Friday, Session 6</b></p>	<p style="text-align: center;">Tonda Thompson, Amy Howard, Jean Bingham</p> 
Churchill	<p><b>The Teacher's Lounge</b></p> <p><i>This room has been reserved for participants to connect, share, relax, snack, take a break, etc. Enjoy!</i></p>	

# Featured Speakers



## **MARK THAMES ...**

is a member of the project team for Mod4, a materials development project at the University of Michigan, funded by the National Science Foundation's Teacher Professional Continuum program. His interests include research on teaching; teacher knowledge, and teacher learning; measures of teacher knowledge; the mathematical preparation of teachers; and the professional education of those who teach mathematics to teachers.

**Sessions 1 and 3 – What Mathematics Do Teachers Need to Know and How Can Teachers Refine Their Expertise?**

## **CATHY FOSNOT ...**

is Professor of Education at the City College of New York and Director of Mathematics in the City, a national center for professional development located at the college. She has authored or co-authored many books and articles on mathematics education, most recently the *Young Mathematicians at Work* series and the accompanying professional development materials funded by NSF. The AERA SIG on Constructivism has twice awarded her their "significant contribution" award.

**Session 5 – Developing an Understanding of Fractions: What Models?**

**Session 6 – Minilessons Using Strings of Related Problems for Fractions, Decimals, and Percents**







## **JANET TASSELL ...**

is an Assistant Professor in the College of Education and Behavioral Sciences at Western Kentucky University. Her research interests include: gifted and talented education identification and curriculum; effects of standardized testing on mathematics education; standards-based reporting vs. traditional letter grades; problem solving in mathematics K-6; motivation in mathematics; gender beliefs in mathematics; and children's literature for mathematics.

### **Session 5 – Caution: What Really is Problem Solving in Grades K-6?**

## **SALLY COUP MOOMAW ...**

is the Associate Director for Professional Development at the Arlitt Child and Family Research and Education Center and a clinical faculty member at the University of Cincinnati. She created the Ohio Department of Education Mathematics Tool Kit to help preschool teachers implement state content standards and has served as a faculty member for nationally televised broadcasts, including Heads-Up Reading. Her research interests include early mathematics development and social justice.

### **Session 2 – Measuring Number Sense in Young Children**



## **PATTY KING ...**

is from Albuquerque, New Mexico, and has recently retired with 30 years of service in the Albuquerque Public Schools. During her career, she has experience as an elementary classroom teacher, Math Coach, Math Recovery Intervention Specialist, and as a Math Recovery Coordinator. Currently, she is working as Program Manager for Math Recovery Intervention Specialists and as a National Trainer for the US Math Recovery Council professional development courses.





### **Session 4 – Reasoning with Numerical Relationships in First Grade**

### **Session 6 – Children Move Away From Counting by Structuring Number**

# Thursday, March 5th

## Session 4: 2:00 – 3:15




### FIRST FLOOR

Room	Session Title and Abstract	Presenter(s)
Oaklawn	<p><b>Partnering for Proficiency: The Work of Two Districts to Improve Middle and High School Math Instruction</b></p> <p><i>Experience lessons from a multi-faceted approach to teaching algebra which encourages students of all learning styles to master the big ideas and concepts as they transition from number sense to algebraic thinking. Todd County and Russellville Independent Schools are located approximately thirteen miles apart. When district leadership saw a need to improve mathematics instruction, the two districts joined together to form a cost-effective professional learning community for middle and high school math teachers. Currently in its first year, the "RITC Math Alliance" is transforming the manner in which students are learning and teachers are teaching through the use of clearly aligned learning targets, ongoing formative assessments, differentiated instructional practices, and interventions.</i></p>	<p>Amy Ramage Todd County</p>
Belmont	<p><b>Let's Learn Math the Fun Way</b></p> <p><i>All children get tired and bored doing problems from the textbook. Learn some fun ways to teach different concepts of math from Kindergarten to eighth grade. Some of the concepts to be covered will be the basic skills, geometry, algebra, and transformations. We will also talk about some books that have a great math connection. Each participant will receive a packet of activities they can take home and use with their classes.</i></p>	<p>Denise Justice</p> 
Pimlico A/B	<p><b>Anchors Away! Strategies to Help Kids Use 5 and 10 to Solve Addition and Subtraction.</b></p> <p><i>In this session, you will learn efficient games and strategies that give students flexibility, accuracy and automaticity with addition and subtraction computation. Help them get beyond counting by giving them a process of grouping and organizing numbers in more efficient ways, as they will never be more than two numbers away from solving any addition or subtraction problem! Use of common classroom manipulatives, such as dice, ten frames and five frames, number lines, playing cards, bead boards and counters will be demonstrated. This presentation is a result of the Mathematics Achievement Fund grant issued by the Kentucky Department of Education and supported by the Kentucky Center for Mathematics."</i></p>	<p>Belle Rush, Jan Estes, Cher Rosser, Christie Gantt, Dee Willis, Sheila Gregory</p> 
Hialeah	<p><b>SNAP To It: Using SNAP to Meet the Needs of Students as well as RTI</b></p> <p><i>SNAP (Student Numeracy Assessment Progression) is a math assessment tool from the Math Recovery Council. This session is intended to show how SNAP, when combined with other math intervention programs as well as a school wide math program can be used to address the needs of all learners while addressing the guidelines set forth by NCLB and RTI.</i></p>	<p>Libby Horn</p> 
Gulfstream	<p><b>Math Class Without a Pencil</b></p> <p><i>Students too often are given bare number addition and subtraction problems before they have had the opportunity to develop strong numeracy skills. As classroom teachers we often rush to teach students how to get the answer before we have given them the skills needed to think flexibly about numbers. Activities and strategies that help build a strong foundation in numeracy, without using a pencil, will be shared along with video clips of the strategies being used by math interventionists in a variety of settings.</i></p>	<p>Elizabeth Wright, Cindy Gross</p> 

# Thursday, March 5th

## Session 4: 2:00 – 3:15

### SECOND FLOOR

Room	Session Title and Abstract	Presenter(s)
Oaks	<b>Changing Beliefs: African American Students' Achievement in Mathematics</b> <i>How can teachers change their instructional practices and develop a classroom culture to best serve their African American students in mathematics? We'll share current research on effective strategies for working with African American students in mathematics that you can immediately implement in your classroom. We'll also share our model of a professional learning community designed to empower mathematics teachers to work more effectively with African American students. This professional learning community includes thoughtful discussion and reflection on shared readings, student-led discussions, and openness about teachers' beliefs and classroom practices.</i>	Heather Levinson <b>Jefferson County</b>
Derby	<b>Power of 10</b> <i>Develop "Ten-ness" number sense and computational strategies using concrete models and games.</i>	Vonda Stamm, Jane Hunt 
Downs	<b>Reasoning with Numerical Relationships in First Grade</b> <i>For those who have knowledge of children's levels of structuring number from Math Recovery, this session is interactive and will include the Instructional Sequence with the Arithmetic Rack, developed by Erna Yackel as it was used in a first grade classroom. The presentation will include video that documents the progress of a child in the classroom instruction of this Sequence of structuring number.</i>	Patty King <b>Featured Presenter</b> 
Churchill	<b>The Teacher's Lounge</b> <i>This room has been reserved for participants to connect, share, relax, snack, take a break, etc. Enjoy!</i>	



# Friday, March 6th

## Session 5: 8:30 – 9:45




### FIRST FLOOR

Room	Session Title and Abstract	Presenter(s)
Oaklawn	<p><b>"Caution: What Really is Problem Solving K-6?"</b></p> <p><i>What is the difference between word problems, open-ended problems, and problem solving? This session discusses the importance of recognizing the differences between mathematics problems and helps participants gain an understanding of how to incorporate the different types of problems in to the curriculum. We will be looking at what the research internationally, nationally, and state level discuss in this topic. We will also be actively reacting to quotes from research literature that help the transition in our thinking. Participants will, leave with an enhanced vision of how to bump up the rigor and find more challenging problems for problem solving.</i></p>	<p>Janet Tassell <b>Featured Presenter</b></p>  <p>Ashley Toczko, Abigail Watkins</p>
Belmont	<p><b>Mathematical Investigations and Connection Making in a Secondary Mathematics Methods Course</b></p> <p><i>"Why does the test for divisibility by 3 work?" "What is <math>\pi</math> anyway?" These are just two questions that led to mathematical investigations carried out by students in a secondary mathematics methods course. Presenters will share instructor- and student-initiated mathematical investigations, the mathematical connections that were made as a result, and ways in which the investigations and connections address improved numeracy. Attendees will learn about and participate in investigations in number and operations, algebra and geometry that lead to connection making.</i></p>	<p>Bethany Noblitt</p>  <p>Laura Plante</p> 
Pimlico A/B	<p><b>Math Games: More Than Child's Play</b></p> <p><i>Games enhance instruction in math. Such a simple statement, and yet so full of truth. Students like playing games, so playing games make learning fun. Students soon learn that there are strategies that will help them win, so they begin to think critically before taking their turn. For students who are struggling, games provide a non-threatening way to practice and master basic skills. For students who need a challenge, games provide an atmosphere where friendly competition is encouraged. Come to this session prepared to play some games and have fun with new resources for your intermediate classroom.</i></p>	<p>Carol Muzny <b>Taylor Mill Elem. Kenton County</b></p>
Hialeah	<p><b>Picture This - Mental Imagery and Early Numeracy</b></p> <p><i>This session will focus on the role that mental imagery plays in numeracy development. Participants will discover the nature of early mathematical imagery and explore how different tools and settings may either promote or constrain the generation of useful imagery among young children.</i></p>	<p>Jonathan Thomas</p> 
Gulfstream	<p><b>Math is F.U.N. - Finding Understanding with Numbers</b></p> <p><i>This presentation will give strategies used in intervention programs that help bring an understanding of numbers. Kindergarten teachers and their students will be enlightened by the use of literature, songs, dot cards, and the use of other manipulatives. For grades 1-3, participants will be informed about addition and subtraction strategies using the open number lines, nice numbers, and other helpful tips in maximizing our math time with students.</i></p> <p style="text-align: right;"><b>Also presented Thursday, Session 1</b></p>	<p>Jo Lin Owens, Sheila Samples, Selisa Adams</p> 

# Friday, March 6th

## Session 5: 8:30 – 9:45






### SECOND FLOOR

Room	Session Title and Abstract	Presenter(s)
Park Suite	<b>Developing an Understanding of Fractions: What Models?</b> <i>In this workshop we will explore several models for fractions and evaluate the pros and cons of each. Emphasis will be placed on relating fractions to partitive division, followed by work with the double number line model.</i>	Cathy Fosnot <b>Featured Presenter</b> 
Derby	<b>Developing Perimeter and Area Formulas</b> <i>Explore formula development with Prancer the Perimeter Pony and Arnie the Area Aardvark.</i>	Rhonda Allen, Tami Pickett 
Downs	<b>Making Math Comprehensible for English Language Learners</b> <i>Learn strategic ways to make math concepts comprehensible while promoting students' English language development. Not only will these strategies help your English Language Learners, but all students. Explore ways to enhance, expand, and improve your own instructional practice.</i>	Jessica Brossart <b>Boone County</b>
Churchill	<b>The Teacher's Lounge</b> <i>This room has been reserved for participants to connect, share, relax, snack, take a break, etc. Enjoy!</i>	

# Friday, March 6th

## Session 6: 10:00 – 11:15






### FIRST FLOOR

Room	Session Title and Abstract	Presenter(s)
Oaklawn	<b>Children Move Away From Counting by Structuring Number</b> <i>This is a presentation for K–2 teachers that will give ideas of activities that classroom teachers can use to move children away from counting from ones to solve addition and subtraction. Children begin to see how numbers can be grouped through: finger patterns, spatial dot patterns, 5 and ten frames and how to move children away from using material to imagery.</i>	Patty King <b>Featured Presenter</b> 
Belmont	<b>Tools and Materials for Exploring Place Value</b> <i>Regional Coordinators from the Kentucky Center for Mathematics will lead a hands-on presentation on manipulatives, tools and activities that can be used in the classroom to develop and deepen students' understanding of place value. This session is a summary of presentations given to Kentucky Math Intervention Teachers on Wednesday, March 4. A hand-out will be provided.</i>	Cindy Aossey,  Linda Jewell 
Pimlico A/B	<b>Construction Geometry: An Interdisciplinary Video Course</b> <i>The Kentucky Department of Education has contracted with Kentucky Educational Television to develop approximately 90 video recorded geometry lessons to be utilized within the Construction Geometry course. These lessons were developed by a team of math and construction teachers based on the 23 required content standards for geometry. A certified math teacher meeting the "highly qualified teacher" criteria delivers the instruction via 10-15 minute video segments. The lessons are utilized by construction technology or carpentry teachers, within a two-credit course, in which students can earn one credit in Geometry and one credit in Construction Technology. This method of contextual learning provides an opportunity for many students to improve their math learning experience while developing an understanding of how geometry is used in construction projects. The interdisciplinary course will allow students to apply the geometry content to real problems and calculations used in the construction industry."</i>	Terri Bennett 
Gulfstream	<b>Kate &amp; Shelly's Mysterious Mathematical Grab Bag: No Powerpoint, No Topic, No Problem!</b> <i>No topic really? Well...inside this mysterious mathematical grab bag you will find a number of different topics (taken directly from the world outside our classrooms) that can be examined mathematically. We believe that any situation in life can be viewed through mathematics. Come immerse yourself in activities designed to engage your students in the processes of mathematical thinking and to develop their ability to write mathematical proofs. Can you develop winning strategies for popular TV reality shows? Can you convince your peers that your strategy is the best? Come take the challenge!</i>	Catherine Lane, Shelly Harkness 

# Friday, March 6th

## Session 6: 10:00 – 11:15

### SECOND FLOOR

Room	Session Title and Abstract	Presenter(s)
Park Suite	<b>Minilessons Using Strings of Related Problems for Fractions, Decimals, and Percents</b> <i>Strings of related problems can be a powerful way to strengthen computation with rational numbers. In this workshop we explore how to craft them to ensure discussion on the critical strategies and underlying big ideas related to operations with fractions, decimals, and percents.</i>	Cathy Fosnot <b>Featured Presenter</b> 
Oaks	<b>Mathematics Intervention Teachers: Powerful Catalysts for Systemic Change</b> <i>In this session, the preliminary findings of a study focused on the impact of mathematics intervention teachers (MITs) on the teaching and learning of mathematics in schools across Kentucky will be presented. In addition to meeting or exceeding their goal of increasing the mathematics performance of intervention students, schools with MITs have demonstrated significant achievement gains across student groups and grade levels. This qualitative study attempts to explain this phenomena.</i>	Sara Eisenhardt 
Derby	<b>Using Games to Develop Number Sense</b> <i>Come play with card games, board games, technology-based games, etc. as we explore fun ways for children to develop and reinforce numeracy skills.</i>	Gloria Beswick 
Downs	<b>Advancing Children's Math Skills Through Games and Effective Teaching Strategies</b> <i>Increase Mathematical thinking by strengthening a child's structure to 5 and 10 using an Arithmetic Rack and Dot Cards. Learn about commercial games to increase mathematical knowledge, as well as participate in making some math games to implement in the regular classroom. Using our strategies and activities Will ensure that each child takes math to the proficient level. The presenters have experienced this success in their school and will be sharing their techniques in this session.</i>  <b>Also presented Thursday, Session 3</b>	Tonda Thompson, Amy Howard, Jean Bingham 
Churchill	<b>The Teacher's Lounge</b> <i>This room has been reserved for participants to connect, share, relax, snack, take a break, etc. Enjoy!</i>	

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Selisa Adams	Jane Hunt	Christina Panches
Rhonda Allen	Kris Jarboe	Amy Ramage
Krista Althausen	Linda Jewell	Rick Renle
Cindy Aossey	Denise Justice	Jamie Rigney
Nancy Applegate	Stacy Justus	Susan Robertson
Terri Bennett	Erin Kenney	Wilma Rogers
Gloria Beswick	Patty King	Cher Rosser
Jean Bingham	Catherine Lane	Belle Rush
Ann Booth	Heather Levinson	Sheila Samples
Kasey Bratcher	Mary Lowe	James Stallworth
Jessica Brossart	Mary McWorter	Vonda Stamm
Denise Bullock	Beth Meiman	Robin Swords
Melanie Christmas	Linda Montgomery	Pam Tabor
Sara Eisenhardt	Sally Moomaw	Janet Tassell
Jan Estes	Jim Moore	Mark Thames
Cathy Fosnot	Gwen Morgan	Jonathan Thomas
Alice Gabbard	Carol Muzny	Tonda Thompson
Christie Gantt	Martha Nau	Ashley Toczko
Sheila Gregory	Bethany Noblitt	Abigail Watkins
Robert Hackworth	Jo Lin Owens	Dee Willis
Kathie Hamilton	Terry Parkey	Olivia Winkle
Shelly Harkness	Tami Pickett	Elizabeth Wright
Libby Horn	Tolene Pitts	Mark Ziegler
Dee Hilton	Laura Plante	
Amy Howard	Stacey Prakash	

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## SPECIAL THANKS TO...



***...the US Math Recovery Council for  
sponsoring two presentations from  
one of the featured speakers, Patty  
King from New Mexico.***



***...Rhonda Allen Evans for organizing  
the presentation of six sessions by  
talented Teacher Partners from the  
Partnership in Math Science  
Education Reform (PIMSER).***

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<i>Selisa Adams</i>	<i>Deborah Fulton</i>	<i>Mary McWhorter</i>	<i>Pam Shafer</i>
<i>Lucy Anderson</i>	<i>Mary Gagne</i>	<i>Beth Meiman</i>	<i>Vicki Shelton</i>
<i>Frieda Baker</i>	<i>Christie Gantt</i>	<i>Angela Miller</i>	<i>Robin Shepherd</i>
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<i>Jean Bingham</i>	<i>DeAnn Gibson</i>	<i>Calvin Music</i>	<i>Jady Skaggs</i>
<i>Helen Blevins</i>	<i>Mary Greene</i>	<i>Bethany Neel</i>	<i>Jena Smiddy</i>
<i>Valeria Bodell</i>	<i>Sheila Gregory</i>	<i>Susie Osborne</i>	<i>Kim Smith</i>
<i>Michelle Booth</i>	<i>Cindy Gross</i>	<i>JoLin Owens</i>	<i>Alicia Stephens</i>
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<i>Elaine Broderick</i>	<i>Nicque Hall</i>	<i>Sherry Patterson</i>	<i>Tamara Stephens</i>
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