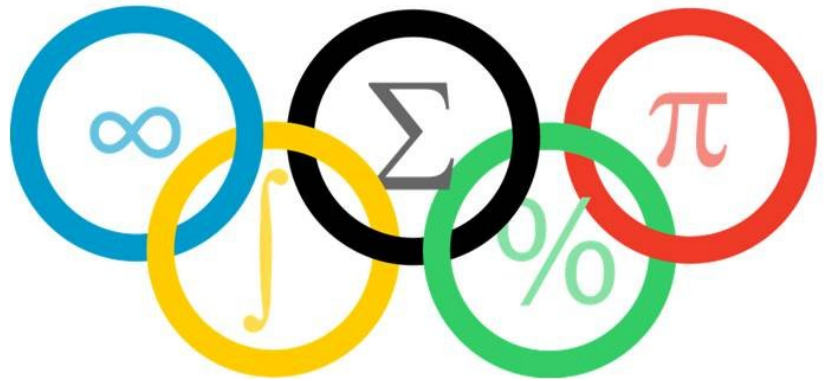




The Greater Richmond Council of Teachers of Mathematics

Presents
2010 Spring Conference

Mathletics



Schedule

4:30 – 8:00	Exhibits Student Commons
4:30 – 5:00	Registration & Light Refreshments Foyer & Student Commons
5:00 – 5:45	Session I
5:55 – 6:15	Business Meeting Auditorium
6:15 – 6:45	Keynote Address Auditorium
6:55 – 7:40	Session II
7:45 – 8:15	Dinner/Door Prizes Cafeteria



Session I



5 – 5:45

Tangrams and Dissection Puzzles Revisited General		Room 104
Dr. Art Stoner	A+ Compass	
<p>This is an expanded version of a previous presentation. Each participant will receive a free CD with templates and solutions to a variety of tangram and dissection puzzles. Free laminated paper versions of a set of tangrams will also be included.</p>		
It's "Knot" A Problem 6th—8th Grades		Room 105
Pam Haner and Lon Mitchell	St Catherines	
<p>Become part of a growing national network of middle grade teachers and college mathematicians as you untangle the tantalizing twists and turns of math ticklers and teasers.</p>		
Making Sense of Mathematics: Looking for Patterns, Formulating Conjectures, Generalizing Results 5th—8th Grades		Room 106
Dr. Ena Gross	VCU	
<p>Come investigate fractions, functions and measurement formulas that your students can explore to see mathematics as the science of pattern and order.</p>		
Fraction Fitness 2nd—4th Grades		Room 107
Jenn Bennett and Beth Burnap	Caroline County Schools	
<p>Hands-on fraction activities using the area, set and measurement models.</p>		





Session I

5 – 5:45

Review Games, Season 2! 6th—12th Grades		Room 111
Karl Lippa and Marianne Veitch	Hanover County Schools	
Learn new ideas for games to play in your classroom to review for any math concept! Make it fun!		
Math Anxiety: Who Has It, Socio-Cultural Origins, How To Cope General		Room 112
Cat Henny	Sabot at Short Pump	
A University of Chicago study demonstrated that female elementary school teachers may pass on their anxiety and stereotypes about math to female students. This presentation will help to define math anxiety, share additional research about those who demonstrate high levels of math anxiety and examine socio-cultural norms about math avoidance. Recognizing math anxiety as a subtle yet pervasive barrier to equity, we will identify “next steps” for students and teachers and also touch on the critical role of teacher preparation programs in reducing math anxiety among preservice teachers		
Box Plots and Histograms 6th—8th Grades		Room 204
Michelle Deloach	Henrico County Schools	
Casio users will utilize the graphing calculator to create and explore a box plot and histogram for a data set. They will then compare the two data sets and draw conclusions about the data.		



Session I



5 – 5:45

Math-gineering: Putting the engineering into Math Class 6th—12th Grades	Room 202
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Mike Howell

Austin Brockenbrough and Assoc.

The question “when will I ever use this” is probably spoken by every student at one point in their school career. When it comes to Math...engineers answer this question every day. This session will provide a brief summary of the importance of engineering in the world today and how the fundamentals of Math are integral for that role. Exercises designed to give a practical look from an engineer’s perspective where the math that the students are learning gets used in the ‘real’ world will also be provided.

We Like to Move It Move It: Moving with Algebraic Thinking 6th—8th Grades	Room 200
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Dr. Cheryl Adeyemi

Virginia State University

This exciting workshop consists of high-energy group activities used to motivate under-achievers. Contextually-based games and a modified hula hoop activity, developed by the “Algebra Project”, will be used to find the line of best fit.

Fact Fluency = Firm Foundation 3rd—5th Grades	Room 206
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Kathy Hicks and Terri Davis

Chesterfield County Schools

Frustrated because your students do not have quick recall of basic facts? Have strategies been taught, yet students are not using them? This Make and Take session will provide engaging games and activities to help your students reach their goal of fluency with math facts.

Differentiate Instruction with Interactive Computer Software General	Room 209
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Ralph Hisle

Envision Technology-Neufeld Math

Computers can be great tools to help students understand mathematics. We will demonstrate how teachers can extend their reach in teaching mathematics with Understanding Math.





Session I

5 – 5:45

Google Earth: Exploring the Mathematics of Your World 6th—College	Room 210
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Michael Bolling	Virginia Dept. of Educations
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Learn how to use Google Earth to engage your students and provide relevance in the secondary mathematics classroom. A computer lab setting will enable participants to use this FREE software and explore applications in secondary mathematics.

Active Science for the Middle School Math Classroom 6th—8th Grades	Room 301
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Dr. Chip and Dr. Kathy Hoke	University of Richmond
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Illustration of effective ways to use hands-on science activities in middle school mathematics classroom, including competitive relay races. Preview of U. of Richmond summer course funded by the Howard Hughes Medical Institute.

Rethinking the Pythagorean Expectation Model 9th—12th Grades	Room 302
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Susan Ballentine and Dr. John Walter	Maggie Walker
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This session will be a discussion on a math problem posed to seniors by Dr. Walter. Susan Ballentine, a senior in class presented a paper on the problem at the national SABRE conference in DC last summer titles: “Rethinking the Pythagorean Expectation Model to Estimate Winning Percentage of Major League Baseball teams”

What Is A Radian 11th and 12th Grades	Room 303
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Nancy Taylor	Powhattan County Schools
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An exploratory set of activities that look at what a radian is as well as the relationship between the six basic trigonometric functions and the unit circle.



Speaker Bio



Dorothy Erlanger

Keynote Speaker

Erlanger Inc. is a successful Richmond based consulting and training company with nearly 30 years in business. Erlanger Inc.'s capabilities include marketing training, strategic plan facilitation and sales effectiveness. Erlanger provides lasting value to clients by delivering practical, organization-specific, results-oriented programs. You can learn more about Erlanger Inc. at www.erlanger-inc.com In addition to Erlanger Inc's consulting/training capabilities, Dorothy Erlanger is well recognized and sought out as a speaker.

As a motivational keynote speaker, Dorothy's passionate and interactive style inspires participants to think differently about challenges and decisions. From her down-to-earth stories and examples, each person comes away with the realization that every one of us has the capability to reach beyond boundaries, achieving goals step by step.

From 'math hater' to Finance MBA and successful business owner, Dorothy relates directly to the challenge of communicating the 'math message' to an often resistant audience. Looking at her own transitional experiences with the perspective of a trainer/teacher, she shares learnings and clues to enhancing effectiveness in working with students at all levels.



1st Floor Map



RWP
1/2003



Session II



6:55 – 7:40

Tangrams and Dissection Puzzles Revisited General		Room 104
Dr. Art Stoner	A+ Compass	
This is an expanded version of a previous presentation. Each participant will receive a free CD with templates and solutions to a variety of tangram and dissection puzzles. Free laminated paper versions of a set of tangrams will also be included.		
Tips For Teaching Money k—2nd Grades		Room 107
Kathy Stockton, Nancy Bennett, and Debbie	Powhatan County Schools	
The teachers at Powhatan Elementary School will present various activities demonstrating money skills for K-2nd grade students. Come and participate in our fun hands on centers.		
Review Games, Season 2! 6th—12th Grades		Room 111
Karl Lippa and Marianne Veitch	Hanover County Schools	
Learn new ideas for games to play in your classroom to review for any math concept! Make it fun!		
Math Anxiety: who has it, socio-cultural origins, how to cope General		Room 112
Cat Henny	Sabot at Short Pump	
A University of Chicago study demonstrated that female elementary school teachers may pass on their anxiety and stereotypes about math to female students. This presentation will help to define math anxiety, share additional research about those who demonstrate high levels of math anxiety and examine socio-cultural norms about math avoidance. Recognizing math anxiety as a subtle yet pervasive barrier to equity, we will identify “next steps” for students and teachers and also touch on the critical role of teacher preparation programs in reducing math anxiety among pre-service teachers		





Session II

6:55 – 7:40

Math Out of the Box k—5th Grades		Room 200
Anne Blevins	Powhatan County Schools	
<p>This is a math curriculum designed by Clemson University that is inquiry-based and facilitates a learning environment that encourages students to think "outside the box", problem -solve and reflect on their learning.</p>		
Math-gineering: Putting the engineering into Math Class 6th—12th Grades		Room 202
Mike Howell	Austin Brockenbrough & Assoc.	
<p>The question "when will I ever use this" is probably spoken by every student at one point in their school career. When it comes to Math...engineers answer this question every day. This session will provide a brief summary of the importance of engineering in the world today and how the fundamentals of Math are integral for that role. Exercises designed to give a practical look from an engineer's perspective where the math that the students are learning gets used in the 'real' world will also be provided.</p>		
Box Plots and Histograms 6th—8th Grades		Room 204
Michelle Deloach	Henrico County Schools	
<p>TI/83/84 users will utilize the graphing calculator to create and explore a box plot and histogram for a data set. They will then compare the two data sets and draw conclusions about the data.</p>		



Session II



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Google Earth: Exploring the Mathematics of Your World 6th—College		Room 210
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Dr. Chip Hoke and Dr. Kathy Hoke	University of Richmond	
Illustration of effective ways to use hands-on science activities in middle school mathematics classroom, including competitive relay races. Preview of U. of Richmond summer course funded by the Howard Hughes Medical Institute.		
What Is A Radian 11th and 12th Grades		Room 303
Nancy Taylor	Powhatan County Schools	
An exploratory set of activities that look at what a radian is as well as the relationship between the six basic trigonometric functions and the unit circle.		
Do Dogs Know Calculus		Aud
Dr. Timothy Pennings	Hope College	
A standard calculus problem is to find the quickest path from a point on shore to a point in the lake, given that running speed is greater than swimming speed. Elvis, my Welsh Corgi, has never had a calculus course. But when we play "fetch" at Lake Michigan, he appears to choose paths close to the calculus answer. In this talk we reveal what was found when we experimentally tested this ability. Elvis will be available for follow-up questions.		



Thank You

Thank you to the following vendors for their door prize contributions:

A+ Compass

McGraw Hill

Pearson

Hotmath

Envision Technology

SOL Teacher Solutions

Peoples Education

Special Thanks to our Spring Conference Host:

Maggie Walker Governors School

Fred Morton, Phil Tharp,	
Pat Taylor, Pattie Chappell	Administrative Team
Deborah Snagg	Technology Assistant
Lynn Foshee Reed	Math Department
Gabriella Georgiadis	Mu Alpha Theta

And finally, thank you to all of our wonderful volunteers and presenters. Without you, this event would not have been possible!





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Mission Statement

W

e are educators bound together in a common quest to make mathematics accessible to everyone of all ages. We want children, young people and adults to see the beauty and utility of mathematics and to harness its power so that they can achieve their life goals.

If you have an interest in the same things, then you belong here, in one of the strongest affiliates of the National Council of Teachers of Mathematics in the state of Virginia.

www.grctm.org

Don't forget!

NCTM Annual Meeting and Exposition
San Diego, California
April 21 – 24

