Technology In Mathematics Education

Northwest Kansas Math and Technology Conference

Co-hosted by:

Southwest Plains Regional Service Center

and

Kansas Association of Teachers of Mathematics

KATM

Monday, October 8, 2007

Colby High School, 1890 S. Franklin
Colby, Kansas

www.swprsc.org / www.katm.org

Welcome!

Conference Schedule

8:00-9:00	Registration & Light Continental Breakfast
	Visit the Exhibitor Booths
9:00-9:15	Welcome & Overview, Bill Biermann, SWPRSC
9:15-9:35	Opening Remarks, Dr. Sid Cooley, KSDE
9:35-10:15	Keynote Speaker, Dr. Arthur Benjamin
10:15-10:45	Break
	Visit the Exhibitor Booths
10:45-11:30	Keynote Speaker, Dr. Arthur Benjamin
11:40-12:30	Session Choice #1/Lunch
12:40-1:30	Session Choice #2/Lunch
1:30-2:00	Break
	Visit Exhibitor Booths & Door Prize Drawings
2:00-2:50	Session Choice #3
3:00-3:50	Session Choice #4

Keynote Speaker

Dr. Arthur Benjamin

Dr. Arthur Benjamin will dazzle and delight you with his dynamic Mathemagics presentation. Combining his two loves – math and magic – he has created a dynamic presentation which will demonstrate and explain his secrets for performing rapid calculations *faster than a calculator.* Join him for an enthralling session of mental arithmetical gymnastics, together with some awe-inspiring magic tricks. His captivating presentation will awe you with the power of the human mind, the wonder of numbers and the simple beauty of mathematics.

Arthur Benjamin is a Professor of Mathematics at Harvey Mudd College, as well as a professional entertainer who has performed in nightclubs and public gatherings around the world. His accomplishments as a mentalist earned him Reader's Digest Magazine's designation as America's Best Math Whiz. For his outstanding abilities as a classroom teacher, he was awarded the Mathematical Association of America's prestigious prize in May 2000. He earned his Ph.D. in mathematics from John Hopkins University. He's the author of two books and the editor of the Math Horizons magazine for students, as well as an accomplished researcher in mathematics.

Opening Remarks

Dr. Sid Cooley

Dr. Cooley has degrees in mathematics and history from Fort Hays State University and a Ph.D. in Education from the University of Kansas. He taught mathematics for fourteen years at both the high school and junior high school levels in Kansas City, Kansas, Hays, and Olathe. His doctoral program included advanced work in statistics, Piaget's theory on learning mathematical concepts, and remedial mathematic techniques. Dr. Cooley has been a consultant with the Kansas Department of Education since 1985, becoming the mathematics consultant in 2007.

1st Sessions (11:40-12:30/Lunch)

(1.1) Dr. Arthur Benjamin: Secrets of Mental Math — Room: Auditorium

(1.2) Wendy Miller: Songs, Raps and Chants for Math! — Room #: 104

(1.3) Patrick Upton: Title Not Available at Print Time — Room #: 106

(1.4) Judy Stubblefield: What's New in College Mathematics? — Room #: 300

(1.5) Dr. Ron Sandstrom: What are my options to become a Highly Qualified Middle School or High School Mathematics Teacher — Room #: 302

(1.6) Tonya Koehn & Cheryl Kucharik: Preparing for the State Math Assessment With Technology — Room #: 304

(1.7) Bill Weber & Lanee Young: Introduction to Geometer's Sketchpad — Room #: 305

(1.8) Callie Harris: Number Sense 101 — Room #: 311

(1.9) Jerry Braun: Create an Interactive classroom without the stress through the use of classroom activity cards — Room #: 401

(1.10) Nancy Baker: Everyday Math Games for Everybody — Room #: 402

(1.11) Dr. Sid Cooley: What is New at the State and National Level — Room #: 403

(1.12) Karla Brown: Unleashing the "CLICKERS"-Creative Tools for Implementing Classroom Response Pads — Room #: 404

(1.13) Brenda Rose: Create a Hunger for Math! — Room #: 405

(1.14) Sandra Atkins: Filling conceptual (W) holes to build computational proficiency — Room #: 406

(1.15) Bill Biermann: 1 to 1 Laptop Initiative — Room #: 407

(1.16) Dr. Germaine Taggart: Kansas Performance Assessment: What is it? How Can I help? — Room #: 409

(1.17) Roger Pogue: ALEKS and PassKey – Prescriptive programs that teach Mathematics — Room #: 502

(1.18) Amber Rowland: LoTi – Levels of Technology Implementation: LoTi Can Help! — Room #: 504

(1.19) Bill Gill & Matt Frankenberry (Exhibitor Presentation): Synergistic Algebra: A new formula for success. . . — Room #: 507

1st Session Descriptions 11:40 – 12:30/Lunch

1.1 Secrets of Mental Math – Dr. Arthur Benjamin – Grades K-6
Professor Benjamin will go into extra details about how to perform and teach the techniques of rapid mental calculation and other amazing feats of mind. The session will be informal and the audience should feel free to ask questions about any topics that interest them.

1.2 Songs, Raps, and Chants for Math! – Wendy Miller – Grades K-2, 3-5
Come learn songs, raps, and chants with kinesthetic hand motions for all of the strands of math! Teachers will leave with materials they can immediately use in the classroom!

1.3 Title not available at print time. – Patrick Upton (Exhibitor Presentation) – Grades Not Available
Description not available at print time.

1.4 What's New in College Mathematics? – Judy Stubblefield – Grades 6-8, 9-12
Find out about the work being done by the state mathematics competencies committee to align curriculum at the community colleges and regent schools. Core competencies for beginning algebra through calculus will be shared. Information about the Equity & Access partnership with KSU, the community colleges in southwest Kansas and three school districts in southwest Kansas will also be shared, including in recent "calculus for middle school teachers" course that was offered this past summer via Polycom.

1.5 What are my options to become a Highly Qualified Middle School or High School Mathematics Teacher – Dr. Ron Sandstrom – Grades 9-12
We will explore the options that are available for a licensed teacher to become endorsed in mathematics at the middle or high school level. These include specific course options, courses leading to Masters Degrees, and special programs available via the Kansas State Department of Education.

1.6 Preparing for the State Math Assessment w/ Technology – Tonya Koehn & Cheryl Kucharik – Grades 3-5
Feeling the pressure to meet the expectations of NCLB? Teachers can use technology to meet the new requirements. We would like to show you how two technology rich classrooms use their resources to prepare for the State Math Assessment. We will show how we use CPS systems, Interwrite tablets, the Internet and other resources. Many of these tools can be expanded to use throughout the curriculum.

1.7 Introduction to Geometer's Sketchpad – Bill Weber and Lanee Young – Grades 6-8, 9-12
This session will cover basic operations on Geometer's Sketchpad. No prior use or knowledge of Sketchpad is necessary.

1.8 Number Sense 101 – Callie Harris – Grades K-2, 3-5
In this session participants will be introduced to research based methods on how to increase students' number sense up to 300% in 3 weeks time! Participants will be shown what the literature says about number sense and shown methods that work. All strategies introduced have been researched in kindergarten, second grade, and third grade classrooms in Wichita, KS.

1.9 Create an Interactive Classroom without the stress through the use of classroom activity cards – Jerry Braun – Grades K-12
When students are engaged, they learn more. This session will look specifically at a program I wrote called Kardopelli which makes creating classroom activity cards a breeze! This will be a hands-on session. Come with ideas to create your own!

1.10 Everyday Math Games for Everybody – Nancy Baker – Grades K-2, 3-5
Participants will be introduced to several games from the Everyday math series and will be given time to play some of the games. They will be able to have their students play the games in their classes with very little preparation.

1.11 What is New at the State and National Level – Dr. Sid Cooley – Grades K-12
Find out the latest on State Assessments, NCLB, AYP, OTL, STEM, MSP, KSDE curriculum list serves, Focal Points, Qualified Admissions Requirements and State Scholarship Curriculum requirements. The presentation will also include unforeseen topics and changes that have developed since the planning of the conference.

1.12 Unleashing the "CLICKERS" – Creative Tools for Implementing Classroom Response Pads – Karla Brown – Grades 3-5, 6-8, 9-12
Come and see what the buzz is all about. Not just for multiple choice questions and data collection, but a delivery tool that gets students to actively participate in their own learning every day. Learn ways to incorporate a wireless tablet and numeric "clickers" as a powerful teaching tool with all your own lessons. Students can enter numbers, variables, parenthesis, etc., to do open-ended questions. You can use the different formats and numeric answers to create a sense of urgency, requiring number sense and mental skills or for grading any of your assignments in class. Find out ways to make this technology an effective part of the classroom for both students and teachers.

1.13 Create a Hunger for Math! – Brenda Rose – Grades K-2, 3-5
Would you like to individualize math instruction more for students? Utilizing "Math Menus" allows teachers to choose enrichment and re-teaching activities appropriate for individual students. View sample math menus, gain hands-on experience, and go home energized to add variety to your math routine and increase your students' "hunger" to learn!

1.14 Filling Conceptual (W) Holes To Build Computational Proficiency - Sandra Atkins (Exhibitor Presentation) – Grades 3-5
In this hands-on workshop we will examine the purposeful use of concrete, pictorial and symbolic representations as well as key strategies for plugging conceptual holes and building computational fluency. Games and activities for immediate classroom use will be provided.

1.15 1 to 1 Laptop Initiative – Bill Biermann – Grades Administrators
Holcomb High School began its 1 to 1 laptop initiative last year. This session will discuss lessons learned, how to get started, benefits, and other related topics to implementation of a technology rich delivery model. This session will focus on early implementation of the program and what key stake holder's need to consider when beginning a laptop initiative.

1.16 Kansas Performance Assessment: What Is It? How Can I Help? – Dr. Germaine Taggart – Grades K-2, 3-5, 6-8, 9-12, Administrators
Participants will receive an overview of the Kansas Performance Assessment. This assessment is required of all new teachers prior to receiving their professional teaching license. Learn the process and how you can assist new teachers with meeting this requirement.

1.17 ALEKS and PassKey – Prescriptive Programs That Teach Mathematics (Exhibitor Presentation)– Roger Pogue – Grades 3-5, 6-8, 9-12
See why McGraw Hill PassKey Math and ALKDS Math are the two best math products in the industry. Both are internet-delivered, low cost, correlated to the Kansas Standards, and highly utilized by many Kansas districts. Scores WILL improve with PassKey and ALEKS!

1.18 LoTi – Levels of Technology Implementation: LoTi Can Help! – Amber Rowland – Grades K-2, 3-5, 6-8, 9-12
Come and see how easy it is to integrate technology into your classroom with 4Teacher tools! ALTEC is an organization dedicated to developing free, easy-to-use, web-based resources to support teachers. This session will highlight these resources and show how they can help produce online lessons with associated assessment instruments.

1.19 Synergistic Algebra: A new formula for success. . . Bill Gill & Matt Frankenberry – 6-8, 9-12
Born from Pitsco's Star Academy, a grade acceleration and credit recovery program which is experiencing tremendous success, Synergistic Algebra combines three instructional delivery methodologies to assist

students in conquering the gateway course called Algebra. Confucius said, "I hear and I forget, I see and I remember, I do and I understand." Come see how Pitsco has successfully brought that concept to the classroom.

Notes:

2nd Sessions (12:40-1:30/Lunch)

(2.1)	Dr. Arthur Benjamin: Secrets of Mental Math	Room: Auditorium
(2.2)	Wendy Miller: Songs, Raps and Chants for Math!	Room #: 104
(2.3)	Bill Losey: KAPTrivia – Kansas Assessment Practice Trivia	Room #: 106
(2.4)	Tanya Gray: Teaching Math Standards with Technology	Room #: 300
(2.5)	Melanie Bacon: Enter the MATRIX: Mobile Technology Innovations to Increase Math Achievement	Room #: 302
(2.6)	No session scheduled at this time frame in this room.	Room #: 304
(2.7)	Mike McClone: High Flying Math: NASA's Smart Skies	Room #: 305
(2.8)	Callie Harris: Number Sense 101	Room #: 311
(2.9)	Robert Fant: Math Wiki	Room #: 401
(2.10)	Pat Turrell: Ice Cream Anyone?	Room #: 402
(2.11)	No session scheduled at this time frame in this room.	Room #: 403
(2.12)	Karla Brown: Unleashing the "CLICKERS"-Creative Tools for Implementing Classroom Response Pads	Room #: 404
(2.13)	Tom Barnes: TI-Smartview Emulator	Room #: 405
(2.14)	Robb Ross, Kathy Vaughn and Diana Wieland: Cooperative Learning for Math	Room #: 406
(2.15)	Bill Biermann: 1 to 1 Laptop Initiative	Room #: 407
(2.16)	Sandra Thies, Dr. Germaine Taggart, Jerry Braun: Western Kansas Primary Math Academy Round Table	Room #: 409
(2.17)	Sharon Gregory: QAR-the "New" in NCA/AdvancEd	Room #: 502
(2.18)	Amber Rowland: LoTi – Levels of Technology Implementation: LoTi Can Help!	Room #: 504
(2.19)	Carol Swinney: Uno, dos, tres. . . .Spanish in the Math Classroom	Room #: 507

2nd Session Descriptions 12:40 – 1:30/Lunch

2.1 Secrets of Mental Math – Dr. Arthur Benjamin – Grades K-6
Professor Benjamin will go into the extra details about how to perform and teach the techniques of rapid mental calculation and other amazing feats of mind. The session will be informal and the audience should feel free to ask questions about any topics that interest them.

2.2 Songs, Raps, and Chants for Math! – Wendy Miller – Grades K-2, 3-5
Come learn songs, raps, and chants with Kinesthetic hand motions for all of the strands of math! Teachers will leave with materials they can immediately use in the classroom!

2.3 KAPTrivia – Bill Losey – Grades K-6 and 7-12
This session will use a quiz show format to strengthen vocabulary for students to succeed on the Kansas State Assessment.

2.4 Teaching Math Standards with Technology – Tanya Gray – Grades 6-8
In this session, I will share ideas for teaching the Kansas Math Standards using technology. Lesson plans, websites, United Streaming videos and other ideas for using technology to teach the math standards will be shared. Although these lessons will be based on 7th grade math, they could be adapted for any grade level.

2.5 Enter the MATRIX: Mobile Technology Innovations to Increase Math Achievement– Melanie Bacon – Grades 3-5, 6-8
Middle school Achievement through Technology Rich Innovations (MATRIX) is an after-school math and literacy program for urban and rural schools not meeting AYP. Learn about standards-based math games and simulations that integrate mobile communication, podcasting, multiplayer online gaming, and virtual reality teaching tools in your classroom.

2.6 No session scheduled at this time frame in this room.

2.7 High Flying Math: NASA's Smart Skies – Mike McGlone – Grades 6-8
Put your students in the seat of an Air Traffic Controller and use mathematics to route planes using their understanding of distance, time, and rates. If you have ever been asked "When will I ever use this?" then this is a great resource to bring real-world mathematics into the classroom.

2.8 Number Sense 101 – Callie Harris – Grades K-2, 3-5
In this session participants will be introduced to research based methods on how to increase students' number sense up to 300% in 3 weeks time! Participants will be shown what the literature says about number sense and shown methods that work. All strategies introduced have been researched in kindergarten, second grade, and third grade classrooms in Wichita, KS.

2.9 Math Wiki – Robert Fant – Grades 3-5, 6-8, 9-12
Participants will be shown how to build a math oriented web page with only a web browser and an internet connection. In particular, participants will be shown how to enter sophisticated mathematical expressions, precisely format the layout and embed Teachertub.com and YouTube.com videos, and java (GeoGebra) applets into the page. After learning these simple steps, participants will be invited to join teachers from all over Kansas and several others from around the world in an extensive collaborative effort via our forum..

2.10 Ice Cream Anyone?– Pat Turrell – Grades 3-5, 6-8
I will share a unit on how to involve the whole school in celebrating American Education Week in November. All grades will be involved, with the upper grades responsible for combining data, calculating, technology presentation and serving the ice cream. Math Content: Surveying and organizing data, number sense and computation, problem solving, technology involving graphing, entering formulas into a spreadsheet, word processing, using video and digital cameras to create an i-movie or power point presentation.

2.11 No session scheduled at this time frame in this room.

2.12 Unleashing the "CLICKERS" – Creative Tools for Implementing Classroom Response Pads – Karla Brown – Grades 3-5, 6-8, 9-12
Come and see what the buzz is all about. Not just for multiple choice questions and data collection, but a delivery tool that gets students to actively participate in their own learning every day. Learn ways to incorporate a wireless tablet and numeric "clickers" as a powerful teaching tool with all your own lessons. Students can enter numbers, variables, parenthesis, etc., to do open-ended questions. You can use the different formats and numeric answers to create a sense of urgency, requiring number sense and mental skills or for grading any of your assignments in class. Find out ways to make this technology an effective part of the classroom for both students and teachers.

2.13 TI-Smartview Emulator – Tom Barnes – Grades 6-8, 9-12
The TI-SmartView emulator is a cool demonstration tool for the teacher to use to lead instruction of math and science concepts. The emulator complements classroom calculator used by displaying an interactive representation of the calculator, plus the emulator offers many unique instructional capabilities.

2.14 Cooperative Learning for Math – Robb Ross, Kathy Vaughn, and Diana Wieland – Grades 3-5, 6-8, 9-12
Cooperative Learning is one of the most effective tools that teachers can use to improve learning. This session will provide some research, management skills and practical application for the successful use of cooperative learning in any grade or classroom.

2.15 1 to 1 Laptop Initiative – Bill Biermann – Grades Administrators
Holcomb High School began its 1 to 1 laptop initiative last year. This session will discuss lessons learned, how to get started, benefits, and other related topics to implementation of a technology rich delivery model. This session will focus on early implementation of the program and what key stake holder's need to consider when beginning a laptop initiative.

2.16 Western Kansas Primary Math Academy Round Table - Sandra Thies, Dr. Germaine Taggart &,Jerry Braun – Grades K-2, 3-5
Mathematics teachers and administrators involved in the Western Kansas Primary Mathematics Academy will engage in a discussion of successes and opportunities for improvement as they have begun to carry out their mathematics action plan developed during the 2007 Mathematics Academies.

2.17 QAR-the "NEW" in NCA/AdvancEd – Sharon Gregory – Grades K-2, 3-5, 6-8, 9-12
Reciprocal teaching is a strategic approach to reading comprehension which incorporates group discussions and student interaction. Students learn to monitor their own comprehension (metacognition) through the use of four strategies: predicting, questioning, clarifying, and summarizing. These strategies were developed primarily for use with expository text yet are effective with all four text types.

2.18 LoTi – Levels of Technology Implementation: LoTi Can Help! – Amber Rowland – Grades K-2, 3-5, 6-8, 9-12
Come and see how easy it is to integrate technology into your classroom with 4Teacher tools! ALTEC is an organization dedicated to developing free, easy-to-use, web-based resources to support teachers. This session will highlight these resources and show how they can help produce online lessons with associated assessment instruments.

2.19 Uno, dos, tres. . . Spanish in the Math Classroom – Carol Swinney – Grades 3-5, 6-8, 9-12
This session will explore simple Spanish terms and phrases to increase the comfort level of the Spanish-speaking student and English-speaking teacher. A few familiar terms can ease the transition of the ELL student and his parents while opening doors to learning and understanding.

3rd Sessions (2:00-2:50)

(3.1) Tom Hanson: TI-Nspire. If You Want to Stay Current with Technology Room: Auditorium
A MUST SEE!

(3.2) Wendy Miller: Songs, Raps and Chants for Math! Room #: 104

(3.3) Bill Losey: Photo Story Room #: 106

(3.4) Tracy Newell: What A High School Mathematics Classroom Should Look Like Room #: 300

(3.5) Melanie Bacon: Enter the MATRIX: Mobile Technology Innovations to Increase Math Achievement Room #: 302

(3.6) Lanee Young: Using Mathematics to Solve the Crime Room #: 304

(3.7) Mike McClone: High Flying Math: NASA's Smart Skies Room #: 305

(3.8) Callie Harris: Number Sense 101 Room #: 311

(3.9) Stacey Powel & Becky Bird: 9-12 Hands-On Activities for State Standards Room #: 401

(3.10) Pat Turrell: Watch Your P's and Q's (2 hr. session; began at 2:00) Room #: 402

(3.11) Diana Wieland: Enhancing Mathematics Using E-Learning Resources Room #: 403

(3.12) Karla Brown: Developing Number Sense – Tips, Tricks & Tools – the Common Sense Math Approach Room #: 404

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(3.14) Sandra Atkins (Exhibitor Presentation): Filling Conceptual (W) Holes To Build Computational Proficiency Room#: 406

(3.15) Dan Woellhof: Cutting Metal – Building Pride Room #: 407

(3.16) Dr. Germaine Taggart, Jerry Braun: Western Kansas Math Academy Round Table Room #: 409

(3.17) Michael Reynolds: How Winplot Spiced Up My Teaching and Engaged My Students Room #: 502

(3.18) Amber Rowland: Integrate Internet Resources into Classroom Instruction with 4Teacher Tools Room #: 504

(3.19) Carol Swinney: Preparing for Cultural Change Room #: 507

3rd Session Descriptions 2:00 – 2:50

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The TI-Nspire will incorporate the use of a calculator, graphs, geometric supposer, spreadsheets, lists and yes text to present and have students work with mathematics.

3.2 Songs, Raps, and Chants for Math! – Wendy Miller – Grades K-2, 3-5
Come learn songs, raps, and chants with Kinesthetic hand motions for all of the strands of math! Teachers will leave with materials they can immediately use in the classroom!

3.3 Photo Story – Bill Losey – Grades K-2, 3-5, 6-8, 9-12
Use this free software to take students to a higher integration of math and technology skills. Participants will learn to use and see student made projects.

3.4 What a High School Mathematics Classroom Should Look Like – Tracy Newell – Grades 9-12
This session will focus on what a standards-based classroom should look like, including photos and videos of what we should be looking for in the classroom to insure quality mathematics is being taught. It includes everything from how the classroom is laid out to what to look for from the students and teacher. This will be a session that includes discussion amongst the participants about these issues. Remember: "When we want to 'catch fish' we bait the hook with what the fish like, not what the fisherman likes. Gregory and Chapman."

3.5 Enter the MATRIX: Mobile Technology Innovations to Increase Math Achievement– Melanie Bacon – Grades 3-5, 6-8
Middle school Achievement through Technology Rich Innovations (MATRIX) is an after-school math and literacy program for urban and rural schools not meeting AYP. Learn about standards-based math games and simulations that integrate mobile communication, podcasting, multiplayer online gaming, and virtual reality teaching tools in your classroom.

3.6 Using Mathematics to Solve the Crime – Lanee Young – Grades 6-8, 9-12
Participants will use algebra, geometry, probability, and data analysis to determine which of the suspects was the most likely to commit the crime.

3.7 High Flying Math: NASA's Smart Skies – Mike McGlone – Grades 6-8
Put your students in the seat of an Air Traffic Controller and use mathematics to route planes using their understanding of distance, time, and rates. If you have ever been asked "When will I ever use this?" then this is a great resource to bring real-world mathematics into the classroom.

3.8 Number Sense 101 – Callie Harris – Grades K-2, 3-5
In this session participants will be introduced to research based methods on how to increase students' number sense up to 300% in 3 weeks time! Participants will be shown what the literature says about number sense and shown methods that work. All strategies introduced have been researched in kindergarten, second grade, and third grade classrooms in Wichita, KS.

3.9 9-12 Hands-On Activities for State Standards – Stacey Powell & Becky Bird – Grades 9-12
This session will provide you with hands-on activities that you can take back to your classroom. The activities presented will be engaging and fun for your students. If you are tying to prepare your students to take the Kansas Math Assessment this session is for you.

3.10 Watch Your P's and Q's – Pat Turrell – Grades K-2, 3-5, 6-8
Polygons, parallelograms, pentagons and quadrilaterals. Participants will be doing hands on activities that can be taken immediately back to the classroom. Come prepared to play as I share fun ways to introduce and expand Geometry terms. K-3 ideas first hour, 4-8 ideas second hour.

3.11 Enhancing Mathematics Using E-Learning Resources – Diana Wieland – Grades 3-5
This hands on session will focus on integrating web resources as effective tools to enhance the learning of Mathematics. Participants will explore various free e-Learning resources (including the Empowered Desktop by Kan-ed, a comprehensive suite of instructional programs, software content, and professional development). The Education Backpack will be the vehicle used to share information.

3.12 Developing Number Sense – Tips, Tricks & Tools – the Common Sense Math Approach - Karla Brown – Grades 3-5, 6-8, 9-12

Every math teacher, whether elementary or high school, knows that without strong math foundations, (i.e. number sense, mental math skills, and basic facts), students' learning is stifled. There are not many resources or lessons that effectively emphasize number sense as a tool. We will focus on empowering teachers with techniques and tools for developing strong number sense and mental math skills that their students WILL USE! These tips, tricks and tools help build strong math foundations beneficial at every level. Come and get some useful strategies you can use immediately with your students.

3.13 iPod's in the Math Classroom – Tom Barnes – Grades 6-8, 9-12
Usually when you think of the math classroom, you envision graph paper and graphing calculators, and some of us can even remember slide rules. In this session, I will show some of the ways that a Video iPod can be used in the math classroom. With inexpensive and/or free software a student can download math and science podcasts and TV shows or creating math PowerPoint's and videos to be viewed on their iPod.

3.14 Filling Conceptual (W) Holes To Build Computational Proficiency - Sandra Atkins (Exhibitor Presentation) – Grades 3-5
In this hands-on workshop we will examine the purposeful use of concrete, pictorial and symbolic representations as well as key strategies for plugging conceptual holes and building computational fluency. Games and activities for immediate classroom use will be provided.

3.15 Cutting Metal – Building Pride – Dan Woellhof – Grades 6-8, 9-12
School mascots, signs, letters, shapes, even hand drawn images. They can all be used as patterns for the PlasmaCam computerized plasma cutter. Students gain experience in a number of tasks when they prepare and cut their own patterns out of flat metal.

3.16 Western Kansas Math Academy Round Table - Dr. Germaine Taggart,& Jerry Braun – Grades 3-5, 6-8
Mathematics teachers and administrators involved in the Western Kansas Mathematics Academy will engage in a discussion of successes and opportunities for improvement as they have begun to carry out their mathematics action plan developed during the 2006 and 2007 Mathematics Academies.

3.17 How Winplot Spiced Up My Teaching and Engaged My Students – Michael Reynolds – Grades 9-12
Winplot is a graphing software package that has many advantageous features, and is completely free! This talk will present a general overview of this very useful program, as well as a description of how I use it in the classroom to complement and enhance the graphs my students produce on their graphing calculators. *Winplot* is also very useful for creating graphs for tests, quizzes and handouts.

3.18 Integrate Internet Resources into Classroom Instruction with 4Teacher Tools – Amber Rowland – Grades K-2, 3-5, 6-8, 9-12
Come and see how easy it is to integrate technology into your classroom with 4Teacher Tools! ALTEC is an organization dedicated to developing free, easy-to-use, web-based resources to support teachers. This session will highlight these resources and show how they can help produce online lessons with associated assessment instruments.

3.19 Preparing for Cultural Change – Carol Swinney – Grades 3-5, 6-8, 9-12
Dynamic changes are occurring in our schools and communities as local economies grow in diversity. Understanding the cultural values and heritage of our entire community of learners will enhance our ability

to teach all students. Although the focus of this session is the Latino culture, other areas of cultural diversity will be addressed.

4th Sessions (3:00-3:50)

(4.1) Tom Hanson: TI-Nspire. If You Want to Stay Current with Technology Room: Auditorium
A MUST SEE!

(4.2) Wendy Miller: Songs, Raps and Chants for Math! Room #: 104

(4.3) Bill Losey: BAIP Room #: 106

(4.4) Jerry Braun: Improving Math Skills By Building Essential Vocabulary Room #: 300

(4.5) Melanie Bacon: Enter the MATRIX: Mobile Technology Innovations to Increase Math Achievement Room #: 302

(4.6) Dr. Jean Anna Sellers: Economics of Sports: It All Adds UP! Room #: 304

(4.7) Keith Dreiling: An Applet for the Teacher Room #: 305

(4.8) Callie Harris: Number Sense 101 Room #: 311

(4.9) Stacey Powel & Becky Bird: 9-12 Hands-On Activities for State Standards Room #: 401

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Come learn songs, raps, and chants with Kinesthetic hand motions for all of the strands of math! Teachers will leave with materials they can immediately use in the classroom!

4.3 BAIP – Bill Losey – Grades K-2, 3-5, 6-8, 9-12
BAIP: The Blending Assessment with Instruction Program. IT was developed in response to demands placed on states, districts, and teachers in meeting the requirements of No Child Left Behind. NCLB requires all students to achieve national curriculum standards. BAIP was designed and developed as a set of online resources to assist teachers with standards based alignment. BAIP translates mathematic curriculum standards into instruction as a way of enhancing student performance. This program provides three sets of web based resources for grades 3, 4, 5, 6, 7, 8 and 10 which are based on Kansas standards and indicators.

4.4 Improving Math Skills by Building Essential Vocabulary – Jerry Braun – Grades K-12
How can students succeed when they don't know what you are talking about? The key to success in math is building a strong essential content vocabulary. This session will help you find effective ways to help students learn and remember key vocabulary with a focus on the Frayer Model.

4.5 Enter the MATRIX: Mobile Technology Innovations to Increase Math Achievement– Melanie Bacon – Grades 3-5, 6-8
Middle school Achievement through Technology Rich Innovations (MATRIX) is an after-school math and literacy program for urban and rural schools not meeting AYP. Learn about standards-based math games and simulations that integrate mobile communication, podcasting, multiplayer online gaming, and virtual reality teaching tools in your classroom.

4.6 Economics of Sports: It All Adds UP! – Dr. Jean Anna Sellers – Grades 6-8, 9-12
Why are athletic programs important to a school? This presentation will provide you, the teacher of athletes, with lessons and information that connect economic principles to the world of sports. The information can be easily adapted to your classroom or when promoting athletic activities in your community.

4.7 An Applet for the Teacher – Keith Dreiling – Grades 6-8, 9-12
Provide your students with interactive programs on the computer. These applets allow students to explore many mathematical concepts, and best of all, they are free.

4.8 Number Sense 101 – Callie Harris – Grades K-2, 3-5
In this session participants will be introduced to research based methods on how to increase students' number sense up to 300% in 3 weeks time! Participants will be shown what the literature says about number sense and shown methods that work. All strategies introduced have been researched in kindergarten, second grade, and third grade classrooms in Wichita, KS.

4.9 9-12 Hands-On Activities for State Standards – Stacey Powell & Becky Bird – Grades 9-12
This session will provide you with hands-on activities that you can take back to your classroom. The activities presented will be engaging and fun for your students. If you are tying to prepare your students to take the Kansas Math Assessment this session is for you.

4.10 Watch Your P's and Q's – Pat Turrell – Grades 3-5, 6-8 SESSION BEGAN AT 2:00!
I will share a unit on how to involve the whole school in celebrating American Education Week in November. All grades will be involved, with the upper grades responsible for combining data, calculating, technology presentation and serving the ice cream. Math Content: Surveying and organizing data, number sense and

computation, problem solving, technology involving graphing, entering formulas into a spreadsheet, word processing, using video and digital cameras to create an i-movie or power point presentation.

4.11 Enhancing Mathematics Using E-Learning Resources – Diana Wieland – Grades6-12
This hands on session will focus on integrating web resources as effective tools to enhance the learning of Mathematics. Participants will explore various free e-Learning resources (including the Empowered Desktop by Kan-ed, a comprehensive suite of instructional programs, software content, and professional development). The Education Backpack will be the vehicle used to share information.

4.12 Developing Number Sense – Tips, Tricks & Tools – the Common Sense Math Approach - Karla Brown – Grades 3-5, 6-8, 9-12

Every math teacher, whether elementary or high school, knows that without strong math foundations, (i.e. number sense, mental math skills, and basic facts), students' learning is stifled. There are not many resources or lessons that effectively emphasize number sense as a tool. We will focus on empowering teachers with techniques and tools for developing strong number sense and mental math skills that their students WILL USE! These tips, tricks and tools help build strong math foundations beneficial at every level. Come and get some useful strategies you can use immediately with your students.

4.13 Data Collection with TI Calculators – Tom Barnes – Grades 6-8, 9-12
There are several ways to collect data with TI graphing calculators. One option uses the CBL 2 data collection interface, in which the sensors connect to the interface, and the interface connects to the calculator. If you are a science or math teacher, these interfaces give you the most flexibility. The other option allows you connect sensors directly to a TI-84 Plus or TI-84 Plus Silver Edition graphing calculator. Through the USB port you can collect temperature, position, velocity, and acceleration data. There are more than 40 compatible Vernier probes. This breakout will demonstrate and explore these different data collection methods.

4.14 No session scheduled at this time frame in this room.

4.15 Cutting Metal – Building Pride – Dan Woellhof – Grades 6-8, 9-12
School mascots, signs, letters, shapes, even hand drawn images. They can all be used as patterns for the PlasmaCam computerized plasma cutter. Students gain experience in a number of tasks when they prepare and cut their own patterns out of flat metal.

4.16 No session scheduled at this time frame in this room.

4.17 How *Winplot* Spiced Up My Teaching and Engaged My Students – Michael Reynolds – Grades 9-12
Winplot is a graphing software package that has many advantageous features, and is completely free! This talk will present a general overview of this very useful program, as well as a description of how I use it in the classroom to complement and enhance the graphs my students produce on their graphing calculators. *Winplot* is also very useful for creating graphs for tests, quizzes and handouts.

4.18 Integrate Internet Resources into Classroom Instruction with 4Teacher Tools – Amber Rowland – Grades K-2, 3-5, 6-8, 9-12
Come and see how easy it is to integrate technology into your classroom with 4Teacher Tools! ALTEC is an organization dedicated to developing free, easy-to-use, web-based resources to support teachers. This session will highlight these resources and show how they can help produce online lessons with associated assessment instruments.

4.19 Moodle Your Noodle – Carol Swinney – Grades 9-12
This session will explore using Moodle as a classroom tool. This user-friendly online platform can expand student opportunities and enhance instructor communication with everything from weekly discussions, group project work and posting of lessons & deadlines during intense periods of school activities. Moodle can keep students linked and teachers connected beyond the traditional classroom.

Notes:

Thanks to. . . .

Conference Contributors

Due to the generosity of the following sponsors, we were able to keep the cost of the conference low. Their sponsorship, in the form of underwriting and donations, contributed to the success of the Northwest Kansas Math and Technology Conference. We thank you for your support.

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Hosting District

Southwest Plains Regional Service Center and the Conference Planning Committee would like to extend a special thank you to USD 315 Colby for their continued generosity and support in hosting this staff development opportunity for the educators of western Kansas.

Local Restaurants

Arby's
I-70 & K-25 Highway

Quality Inn Restaurant
I-70 & K-25 Hwy

Sonic Drive-In
I-70 & K-25 Hwy

Burger King
I-70 & K-25 Hwy

Subway Sandwiches
I-70 & K-25 Hwy

Taco John's
I-70 & K-25 Hwy

Village Inn
I-70 & K-25 Hwy

City Limits
I-70 & K-25 Hwy

Dairy Queen
I-70 & K-25 Hwy

Kansas Country Store Deli
I-70 & K-25 Hwy

McDonald's
I-70 & K-25 Hwy

Baskin Robbins
Oasis Travel Center

Quizno's Subs
Oasis Travel Center

Chester Chicken
Oasis Travel Center

Cinnamon Street Bakery
Oasis Travel Center

China Buffet
1935 S. Range

Montana Mike's
1855 S. Range

Pizza Hut
980 S. Range

Daylight Donut
300 N. Franklin

Big Wong's
1715 W. 4th

Gambino's Pizza
1140 W. 4th

Kim Sutton

Kim Sutton is a **fabulous presenter**, who has taught thousands of teachers the joy and excitement of "hands-on" math. Kim's teaching experience includes over **20 years of classroom teaching, regional math specialist and university instructor**. Kim has worked with over 150 districts nationally and internationally as a staff development consultant. A former Associate Director of Project AIMS, Kim has a master's degree in Mathematics Education. Kim was the **keynote speaker for Northwest Conference, Texas CAMT and Kansas State Math Conference**. Kim has written many articles about pattern blocks, classroom management and is the author of ***Math Engineers, Math Focus Activities, Visual Tools, Number Line Workbook, Making Math Books With Children, Powerful Numbers 0-100*** *and* ***Place Value With Pizzazz.***

Experience what others have learned—**Kim Sutton is a dynamic, extraordinary educator whose enthusiasm and love for teaching are contagious!** She gives you practical, easy to implement information and ideas that you will use for years. Don't miss this wonderful opportunity to be ***thrilled, challenged*** **and** ***energized!***

The Kim Sutton workshop will be held on November 5, 2007 for grades K-5 and on November 6, 2007 for grades 4-8. The cost for Member Districts is $125 and Non-Member Districts is $140. This will be held at the mall in Hays and will be 8:00 AM – 3:00 PM both days

Please contact Nonie McMillan if you'd like to register. She can be reached at nmcmillan@swprsc.org or by phone at 1-800-728-1022.

NW KS Math and Technology Conference Evaluation 10/08/07

Name (optional):_____ District:_____
Building:_____ Position:_____

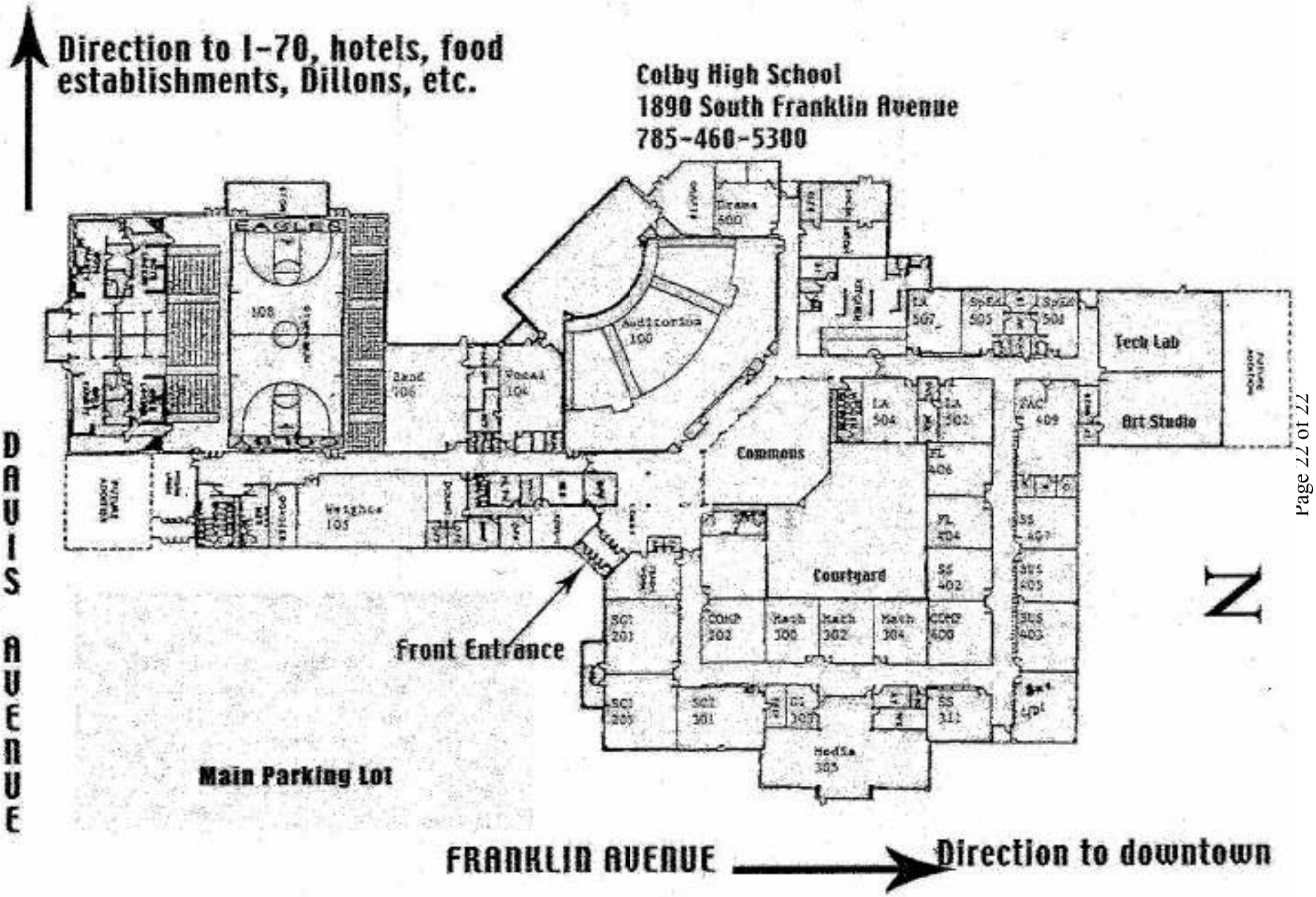
Please mark only one choice for each area.

Please rate the following:	Excellent 5	Good 4	Average 3	Fair 2	Poor 1
The overall conference.					
The keynote speaker/presentation.					
The conference location.					
The conference facilities.					
The meals/snacks served.					
The information I gained can be applied to my educational setting.					
The variety of break out sessions.					
Break Out Choice #1: (insert title)					
Break Out Choice #2: (insert title)					
Break Out Choice #3: (insert title)					
Break Out Choice #4: (insert title)					

In your opinion, what were three highlights of the conference?
1._____
2._____
3._____

I would like to know more about the following:
1._____
2._____
3._____

Were you disappointed in any area of the conference? If so, which area and why?


Direction to I-70, hotels, food establishments, Dillons, etc.
Colby High School
1890 South Franklin Avenue
785-460-5300
DAVIS AVENUE
Auditorium 100
Commons
Courtyard
Tech Lab
Art Studio
Weights 105
Front Entrance
Main Parking Lot
FRANKLIN AVENUE
Direction to downtown
N