## KATM BULLETIN

## Kansas Association of Teachers of Mathematics

$\infty$ VOTE TODAY!!! Go to www.katm.org to vote for your 2009 candidates for the KATM Board. All you need is your user id and password. Not registered? Sign up today using your mailing label from your Bulletin.

President Elect - David Barnes
VP College - Keith Dreiling
VP Middle School - Fred Hollingshead
$\infty$ KATM Conference 2009 is scheduled for FRIDAY, OCTOBER 23 2009. This will be a one-day conference in HAYS, KS. Early bird registration is $\$ 50$. Mark your calendars and check the website and bulletin for details.
$\infty$ MINDS UNDER CONSTRUCTION is the theme for KATM Conference 2009. Put on your hard hat and begin thinking of ways to share your "project designs" with mathematics teachers across the state. The Presentation Proposal Form is available on page 5. Fill it out and send it to Lanee Young at lyoung@fhsu.edu.
$\infty$ MONEY!!! In these times of recession would you like to get some money for improving your classroom. Check out page 3 and 9 for scholarship application information. MONEY!!
$\infty$ ZONE NEWS is available on the KATM Website. Check it out for information about what is happening in your area.
$\infty$ I would love to hear from you concerning what you would like to see in the KATM Bulletin. Please email your comments or suggestions to lyoung@fhsu.edu.

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## KATM BULLETIN

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## President's Letter

## Brought to you by Christine Staab

Christine Staab Louisburg High School

As you have probably experienced, today's learners seem to be different than those of yesterday. For example, some students prefer a quick and easy process. They don't want to have to think. They say things like "I just want to get it done." This focus on task completion versus learning greatly concerns me. This attitude toward learning goes against every principal of the $21^{\text {st }}$ century skills.

In the last KATM Bulletin, I encouraged you to look at the resources available from www.21stcenturyskills.org. On this site, you will find information about incorporating creativity, innovation, and critical thinking into your lessons. There are also many ideas for encouraging problem solving, communication, and collaboration. Our students will need these skills as they enter the competitive workforce of today. We can help our students develop these skills. What better place than in a mathematics classroom?

## Getting to Know Your Webmaster

## Q: Who is the KATM Webmaster?

A: The KATM Webmaster is Allen Sylvester.
Q: What makes him qualified to be Webmaster of KATM?
A: Allen has a Bachelors Degree in Computer Science, a Masters Degree in "Educational Computing, Design, and Online Learning", and a Ph.D. in Curriculum \& Instruction. Allen is in his second career, having started off as a mainframe programmer back in the days before Y2K, has discovered that he enjoyed teaching others how to use computers more than programming computers. Allen went back to school and earned teaching licenses in Computer Studies, Mathematics, and General Science, and is "Highly Qualified" in each area.

Q: What does Dr. Sylvester teach?
A: Allen currently teaches $8^{\text {th }}$ grade Pre-Algebra, Algebra, and Geometry at Eisenhower Middle School in Manhattan, Kansas. He has also taught math at Highland Park High School and Robinson Middle School (both in Topeka, Ks.) and Junction City High School and Junction City Middle School ( both of which just happen to be in Junction City, KS.) Allen served on the Kansas Mathematics Standards Revision Committee (revision 2003), and has been named co-chair of that committee for 2010.

Q: What does Allen do for fun?
A: Aside from spending time with his wife, Debbie (also a math teacher and current VP of High School), their dogs (Chipper \& Buddy), and their cats (KC, AC, \& DC), Allen enjoys building and programming huge computerized Christmas light displays (10,000 lights last year, hoping for 15,000 this year). He also is an advocate for alternative energy, and has a generator which runs on used French-fry oil. He used to have a wind turbine until this past winter's record wind speeds burned out the main bearing (guess what his summer project is?).

Q: What is one of Allen's goals in life?
A: To cover the roof of his house in solar panels so he can go "off the grid."

## Q: How do I contact our webmaster?

A: Email him at webmaster@katm.org

## Mathematics for the Elementary Teacher

Brought to you by Angie Kisner
One way that I introduced symmetry to my kindergarten class was to look at butterfly wings. We studied butterflies at the beginning of the year. The kids had a pretty good recollection. I had butterfly cutouts that were given to each student. They folded then in the middle. On one side they dropped paint spots. When they had finished with their paint spots, they folded it and rubbed it. When they opened it up it was like a real butterflies' wings. We using this project for a spring time


Angie Kisner teacher kindergarten at Copeland Elementary. decoration in the hall way.

## CAPITOL FEDERAL MATHEMATICS <br> TEACHING ENHANCEMENT SCHOLARSHIP

Capitol Federal Savings and KATM provides a scholarship to be awarded to a practicing Kansas (K-12) teacher for the best mathematics teaching enhancement proposal. The scholarship is $\$ 1000$ to be awarded at the fall KATM conference. The scholarship will be determined by the Executive Council of KATM.

## PROPOSAL GUIDELINES:

The winning proposal will be the best plan submitted involving the enhancement of mathematics teaching. Proposals may include, not limited to, continuing mathematics education, conference or workshop attendance, or any other improvement of mathematics teaching opportunity. The 1-2 page typed proposal should include

- A complete description of the mathematics teaching opportunity you plan to embark upon.
- An outline of how the funds will be used.
- An explanation of how this opportunity will enhance your teaching of mathematics.


## REQUIREMENTS:

The successful applicant will meet the following criteria:

- Have a continuing contract for the next school year in a Kansas school.
- Teach mathematics during the 2009-2010 school year.

Be present to accept the award at the 2009 KATM Conference
APPLICATION:
To be considered for this scholarship, the applicant needs to submit the following no later than June 15, 2009. A 1-2 page proposal as described above. Two letters of recommendation, one from an administrator and one from a teaching colleague.
PLEASE SUBMIT MATERIALS TO: Betsy Wiens, 2201 SE 53 ${ }^{\text {rd }}$ Street Topeka, Kansas 66609
Phone: (785) 862-9433
FAX: (785) 339-4325

# Mathematics for the High School Teacher 

## Brought to you by Debbie Sylvester

Looking for some fun and interesting math games and activities for your classes, but find there isn't much out there for High School? Check out MathBits.com, which has resources ranging from Algebra through Pre -Calculus. This site, designed and built by math teachers Frederick and Donna Roberts, is focused on the slogan "live long and love math."

Trying to find a new and fun way to practice? There are several levels of "caching" games, which require the player to solve a few simple problems. Once you have the answers written down, you insert your answer into a unique URL that leads you to the next step. There are printable worksheets for students to record their answers. The goal is to search for hidden Internet boxes to complete the game. The basic premise is similar to a virtual game of "Geocaching."

Not looking for games? There are also links to several different kinds of printable graph paper: rectangular, polar, trigonometric, graphing calculator blanks, dot paper, and others. There are also links to tutorials for TI graphing calculators, formula sheets, puzzle makers, and test prep sites.

Have access to Geometer's Sketchpad? The GSP link contains activities for Algebra, Geometry, and Algebra 2. These lessons are designed for the beginning user with pre-made, downloadable sketches and student activity sheets and the more experienced user with directions for the students to build their own sketches. Did you know that you can import GSP sketches into a Word document? The instructions are included.

Need a quick but engaging review? Try the PowerPoint link. There you will find Jeopardy-style reviews full of colorful slides and cute graphics. All of the slideshows are designed to be played online. Topics range from $6^{\text {th }}$ grade math to Algebra 2 and the Golden Ratio.

Resources are broken into student and teacher links. The teacher links include activities and lessons from Algebra to Pre-Calculus with a Calculus link yet to come. The student links include online tutoring links, formula sheets and calculator tips. Be sure to check out the Humor and Misc. sections of the student resources.

Also on the site are links to purchase subscriptions to AlgebraBits.com and GeometryBits.com that include many more puzzles, activities, games and resources. With subscription comes the option of requesting materials built to fit the unique needs of your students. Considering a subscription? Check out the sample activities. (While it is not our policy to endorse for-pay sites, you will find much free math-based-fun on this site.)

## A Tip from the Webmaster

If you ever get a file that is in the wrong format for your computer's software (like -- you got a .docx file (word 2007) from someone and you only have Word 2000, or you got a .odt file from some compu-geek who uses OpenOffice...), use this site: www.zamzar.com. It will convert virtually anything into anything else. (gold into lead, pigs ears into silk purses, stuff into shine-ola, pearls into pigs, politicians into honest men...) For those of you who play with video/audio/graphics, it'll do that too.....very slowly though. Documents are quicker. Just follow the instructions on the page! It's handy-dandy!

Presentation Proposal Form
KATM Math Conference: October 23, 2009
Hays High School
Lead Presenter Information:

| Name: |  | Cell Phone: |  |
| :--- | :--- | :--- | :--- |
| District Name/No.: |  | Work Phone: |  |
| E-mail Address: |  | Summer Phone: |  |

Co-Presenter(s) Information:

| Name: |  |  |  |
| :--- | :--- | :--- | :--- |
| District Name/No.: |  |  |  |
| E-mail Address: |  |  |  |
| Session Title (please be creative!): |  | Cell Phone: |  |
| KS Assessed Indicator addressed: |  | Work Phone: |  |
|  |  |  |  |
| Session Description (please include a short, highly-descriptive, attention-getting description of the session content and <br> objectives for attending): |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Presentation Information:

This session is applicable for the following grade levels (please mark all that apply):


This session addresses the following standard/area (please mark primary focus)
$\qquad$ Number \& Computation $\qquad$ Algebra $\qquad$ Geometry $\qquad$ Data/Statistics $\qquad$ Pedagogy (i.e. technology, cooperative learning, etc.)

Audio/Visual Needs (presenters are responsible for providing their own computers):

## General Guidelines:

$\square \quad$ There is a $\$ 10$ registration fee for all presenters. A separate Registration Form is required.
$\square \quad$ Proposals are due to the KATM Planning Committee no later than July 1, 2009.
$\square \quad$ Notification of acceptance/rejection will be made by July 12, 2009.
$\square$ Lead presenters will be responsible for notifying each co-presenter regarding the acceptance status of the proposal, times, and location; in addition to any other correspondence received from KATM.
$\square$ You are responsible for providing your own computer and applicable power cords, power strip, and extension cord. Mac users, please remember to bring your projector adapter.
$\square$ Most all correspondence from KATM to presenters in relation to the conference will be made by email. You agree to notify KATM if your e-mail address changes.

## Signature of Lead Presenter

## Date

## Complete and return both pages of this proposal form to:

Dr. Lanee Young
KATM Program Chair
600 Park Street - FHSU Math Department
Hays, KS 67601

Phone: 785-628-5669
Fax: 785-628-4087
Email: lyoung@fhsu.edu

## Resources for Math Teachers Dr. Sid Cooley KSDE Mathematics Consultant

KSDE has a listserv over which we send out information about resources, events, news, and information about mathematics related happenings at the Department, including state assessments and standards. Recently I sent out the first item below. I had a lot responses thanking me for sending it out. One responder asked for some specific information on a related topic. As I was going through my resources, I realized that many teachers would also be interested them. This list is not exhaustive and some of them lean toward the "academic," but you may find something of value to you. (If you are not on the KSDE math listserv, just e-mail me at scooley@ksde.org, and say add me to the listserv and I will put your name on it - make sure you include your name and send the message from the address you want the messages sent to.)

The National Center for Education Evaluation and Regional Assistance has released a new What Works Clearinghouse (WWC) practice guide, "Assisting Students Struggling with Mathematics: Response to Intervention (RtI) (called MTSS in Kansas) for Elementary and Middle Schools." This guide provides eight specific recommendations intended to help teachers, principals, and school administrators use Response to Intervention (Rtl) to identify students who need assistance in mathematics, and to address the needs of these students through focused interventions. The guide also describes how to carry out each recommendation, including how to address potential roadblocks in implementing them. Read this new practice guide at:

## http://ies.ed.gov/ncee/wwc/publications/practiceguides/\#rti_math_pg

A few years age KSDE funded a resource guide for teachers. It has many helpful resources for math teachers. The link to this site is:
http://www.ksde.org/Default.aspx?tabid=1719

The National Council of Teachers of Mathematics has many resources. Their website is http:// www.nctm.org/

One item of interest is a research brief on the effects of formative assessments. The link is: http://www.nctm.org/news/content.aspx?id=11466

The Center on Instruction. The Center is part of the Comprehensive Center network, the Center on Instruction is one of five content centers serving as resources for the 16 regional U.S. Department of Education Comprehensive Centers. It is a gateway to a cutting-edge collection of scientifically based research and information on $\mathrm{K}-12$ instruction in reading, math, science, special education, and English language learning. The Math section has a number of resources related to RtI (MTSS in Kansas), including some general resources related to assessing students. The link to the Center is:
http://www.centeroninstruction.org/index.cfm
An item of interest on this site is a document that summarizes research on instruments for screening students in grades K-3. The link to this document is:
http://www.centeroninstruction.org/files/COI\ Math\ Screening.pdf
The Center for the Study of Mathematics Curriculum has some resources that may be helpful. The Project Partners are: Michigan State University, University of Missouri, Western Michigan University, Horizon Research, Inc., University of Chicago, Columbia MO Public Schools, Grand Ledge MI Public Schools, Kalamazoo MI Public Schools. The link to their website is:
http://mathcurriculumcenter.org/index.php
The K-12 Mathematics Curriculum Center is another center that has helpful resources. The K-12 Mathe-
matics Curriculum Center is funded by the National Science Foundation and their purpose is to inform and assist schools and districts as they select and implement Standards-based mathematics curricula. The link to the site is:
http://www2.edc.org/mcc/

Cambridge University (England) has a math project, the NRICH Project, which you may find helpful. On this website, you will find thousands of our free mathematics enrichment materials (problems, articles and games) for teachers and learners from ages 5 to 19 years. All the resources are designed to develop subject knowledge, problem-solving and mathematical thinking skills. The link to this project is:
http://nrich.maths.org/public/index.php

If you have a question about a math topic, a good place to take your question to is The Math Forum. It is a research and educational enterprise of the Drexel School of Education. The link is:
http://mathforum.org/

## KANSAS LEARNING FIRST ALLIANCE <br> News and Notes: News Release <br> March 12, 2009

Topeka: KLFA continues 21st Century skills discussion and dissemination efforts
The Kansas Learning First Alliance met Thursday, March 12. Most of the meeting, both in the committee as a whole portion and in the three workgroups, was focused on bringing 21st century assessment, curriculum and instruction to the state's public schools. The state's difficult financial situation and its impact on schools' ability to move forward with steady or shrinking resources, was an essential part of the day's discussions.

The group heard a report from members who attended the LFA state affiliate summit in New York City in early March. The group also grappled with concerns by some that the move towards "21st Century skills" was just a rehash of previous educational trends and would need to swing back to more "content" oriented instruction. KLFA, as an early promoter of the Partnership for 21st Century Skills, is working to inform educators and the public in general of the promise a better way of teaching content through relevant and rigorous project-based learning would have on both necessary accountability assessments and graduation rates, another accountability measure. Content and skills - these are not either/or choices but must be integrated.

The three groups work towards improving student achievement; strengthening the professional development of educators; and engaging the public in school improvement and student achievement efforts. To focus their work, three general goals offer guidance. They are:

- KLFA will broadly disseminate its work to influence practitioners.
- KLFA will increase its visibility among policy makers.
- KLFA will strengthen and increase its organizational capacity.

Over thirty people from two-thirds of the member organizations were in attendance.
The mission of KLFA is to unite the education community to improve our outstanding public education system, pre-K through higher education, to empower each Kansan to succeed in the diverse, interdependent world of the 21st century. The next KLFA meeting is Wednesday, May 27 at KASB.

## Zone News

## ZONE 1: Kathy Desaire (kdesaire.usd269@ruraltel.net)

## ZONE 2: Deb Nauerth (DEBN@manhattan.k12.ks.us)

Are you feeling like you are down to the wire trying to get a million and one things done in the last few weeks of school? Welcome aboard the CRAZY TRAIN and enjoy the ride! You are not alone! In Zone 2 we celebrated exciting State Assessment results, as so many did in Kansas. YEAH! The Young and the Rest of Us will be having our final meeting on Cinco de Mayo. We will be meeting with some of the math leaders from around the state at this meeting so teachers will have the opportunity to bring their questions for discussion. David and Melisa are busy gearing up for the Infinite Mathematics Project (IMP) Share Fair on Friday, May 8. Participants of IMP will share their Japanese Lesson Study results and progress on leadership initiatives. My Lunch-to-Learn PLC book study group has 8 participants who are reading The Differentiated Classroom: Meeting the Needs of All Learners by Carol Ann Tomlinson. We will be having our final meeting/celebration on Friday, May 15, to reflect on our learning. The Lunch-to-Learn group is already making plans for how to incorporate technology (most likely Moodle) for another professional development opportunity in the fall. School will be out soon, but that doesn't mean it's time to rest! David and Melisa are putting final touches on IMP Year 3, which will be kicked off on June $8^{\text {th }}$ for two weeks in Manhattan! This will be followed by another math professional development opportunity for $5^{\text {th }}-8^{\text {th }}$ grade teachers in Junction City called Project Renew which will be for another two weeks. Project Renew is a 3 year project and is the result of a new grant Melisa and David co-wrote, funded by MSP. As you can see we 're on the go, learning and having fun along the way! THANK YOU to all those who are working so hard to improve mathematics education in Zone 2!
~When you live for a strong purpose, then hard work isn't an option. It's a necessity. ~ Steve Pavlina
ZONE 3: Pat Foster (pfoster@usd341.org)
ZONE 4: Karla Childs (kchilds@pittstate.edu)

## ZONE 5: Jennifer Weilert (jweilert@usd259.net)

SCKATM (South Central Kansas Association of Teachers of Mathematics) recently sponsored a Spring Social in Wichita. Math educators were invited to come and socialize/network with other teachers, enjoy good food, and win fabulous door prizes! We are looking forward to having our annual Math at the Zoo event, which will be in October at the Sedgwick County Zoo. It is like a "mini-inservice", where teachers can come and learn some new strategies from their colleagues. Teachers that attend receive free admission to the zoo that day for their families. If you would like more information about this event and/or are interested in presenting a short session for other math teachers, please contact us at board@sckatm.org.

## ZONE 6: Tracy Newell (tnewell@gckschools.com)

Greetings KATM members,
I am writing from Garden City as the KATM Zone-6 coordinator, but what I have to say affects truly all mathematics educators in Kansas and across the nation. Recently at a conference in Washington D.C., with the Association of State Supervisors of Mathematics (ASSM) where I heard presentations from leaders from the national front on mathematics education and reform, including National Council of Teachers of Mathematics (NCTM) president Hank Kepner and National Council of Supervisors of Mathematics (NCSM) president-elect Diane Briars about what could have states' secondary standards by the dozens being abandoned in favor of a set compiled by Achieve Inc., ACT, and College Board. This should be of great concern to us as public educators. This effort was discussed and welcomed with open arms by many of the state educational agencies and governors' boards at a meeting in Chicago on April 17, 2009. The standards and assessments would be in place by the end of the calendar year 2009. WOW, how fast they can work without inviting organizations such as ASSM, NCTM, or NCSM to the table for recommendations on development of these standards and assessments. If this alarms you as much as it does me, please contact your commissioner and governor ASAP. Dr. Alexa Posny can be reached at aposny@ksde.org and Governor Sebelius at www.governor.ks.gov/ under "contact the governor".

## ZONE NEWS

At the NCSM conference, I attended a session presented by Achieve Inc. and realized just how much this is being driven by the college ranks. What this essentially means (and some states have already gone there) for the states joining this cohort is that Algebra II would be required as a graduation requirement in most of these states and in some that passing these tests would be required for graduation in some states. Now don't get me wrong, I am all in favor of higher standards, but where will we stop at the secondary level, when every student passes an AP calculus exam. Lets face it until we can get Institutions of Higher Education (IHE's) to start drastically changing some of their teaching methodologies (Pedagogy), a word not known to many Schools of Liberal Arts, we can teach students all the mathematics we want at the secondary level and the failure rate in the IHE won't change. I digressed there for just a moment, but let me return to the Achieve Inc. presentation. It was clear that the process standards that we know make a difference in high schools don't mean much in some university mathematics classes. But, content, content, content...and yes more content is all the IHE's are interested in.

On a brighter note, at Garden City High School this spring, for the junior class mathematics assessments, we are expecting to hit approximately $90 \%$ proficiency (we were at $50 \%$ just three years ago), with approximately $80 \%$ proficiency for both the ESL and SPED subgroups. If you would like to visit about how we are doing this please feel free to contact me at tnewell@gckschools.com or 620-805-8016. By the way we hit 85\% proficiency last year and the 16-member mathematics department wasn't happy with this and set $91 \%$ (which coincides with the school that is hitting $91 \%$ in our athletic conference, with slightly different demographics than GCHS) as our goal for this year. I look forward to hearing from you.

## KATM Cecile Beougher Scholarship <br> oNLY FOR ELEMENTARY TEACHERS!!

A scholarship will to be awarded to a practicing Kansas elementary (K-6) teacher for professional development mathematics education. This could include attendance at a math conference/workshop or enrollment fees for course work. The value of the scholarship is $\$ 500$, plus a possible addition of $\$ 118$ in memberships to KATM and NCTM.

Upon selection: up to $\$ 400.00$ cash award to defray the costs of registration fees, substitute costs, etc.
Upon verification of attendance at a conference or enrollment college credits :
up to $\$ 100.00$ cash award for the purchase of materials/resources for teaching mathematics (an itemized list of the use of these funds will be required along with receipts),
for those receiving college credits there are two additional incentives:
an NCTM Membership (value \$78), a three year KATM membership (value \$40)
Upon competition of conference/workshop or course work an itemized list of funds required.

## REQUIREMENTS:

The successful candidate will meet the following criteria:
Have a continuing contract for the next school year as a practicing Kansas elementary (K-6) teacher.
Current member of KATM ( if you are not a member, you may join by going to www.katm.org)

## APPLICATION:

To be considered for this scholarship, the applicant needs to submit the following by June 15, 2009.
A letter from the applicant addressing the following: a reflection on how the conference, workshop, or course will help your teaching, being specific about the when and what of the session, and how you plan to promote mathematics in the future.

Two letters of recommendation/support (one from an administrator ; one from a colleague).
A budget outline of how the scholarship money will be spent.
SUBMIT MATERIALS TO:

## KATM EXECUTIVE BOARD MEMBERS

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