

# KATM Bulletin

Kansas Association of Teachers of Mathematics

## SAVE THE DATE

KATM Annual Conference

October 8, 2018

Manhattan, KS

April  
2018

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## A Message from our President

Kansas Mathematics Educators,

Happy spring! Though the recent weather makes some days still seem like winter, fourth quarter of the 2017-18 school year has arrived. Throughout the school year, KATM members have been able to connect in-person at our October conference as well as collaborate and share ideas by participating in book studies, the KATM Facebook group, and Twitter. It is exciting to see the KATM continuing to grow and work together to provide the best math experiences for our students.

We invite you to continue to share your ideas as we wrap up the school year, and to stay connected through Facebook, the KATM website, and email for any announcements and updates over the summer. Please consider applying for the Cecile Beougher Scholarship (elementary teachers only) and the Capitol Federal Savings Mathematics Teaching Enhancement Scholarship. The submission deadline is June 1, and you can find the applications and additional information on the KATM website.

As a reminder, the 2018 KATM conference will be held at Manhattan High School on October 8<sup>th</sup>. Please make plans to attend. We hope you will also consider sharing your ideas and strengths to inspire other Kansas math educators by applying to present a session during the conference. Registration as well as presenter proposals can be found on the KATM website.

It is my honor to serve as the KATM President for the 2017-18 school year. I am proud of the work you do every day to support students, colleagues, and families in Kansas. Best wishes for the remainder of the school year, and a restful, productive summer filled with joy and time to recharge.

Many thanks,

Stacey Ryan

KATM President

Dear Kansas Math Teachers,

I hope you're all doing well this crazy spring.... warm one day, snowing the next. And we all know how crazy the fourth quarter is, so I guess we better just go full steam ahead.

This is the time of year that I always start thinking about what was successful this school year....and what stuff is driving me crazy. Then I begin working on my "list of things to change for next year". How can I (try) to resolve all of this year's problems when I get a fresh start next year???

So, what is on your mind this spring? What are the things that you're planning to change for next year? What tools will be helpful for you in making these changes?

Good luck finding all the answers between now and May!

Sincerely,

*Jenny Wilcox*

KATM Bulletin Editor



The KATM Bulletin needs submissions from K-12 teachers highlighting the mathematical practices listed above. Submissions could be any of the following:

- ◇ Lesson plans
- ◇ Classroom management tips
- ◇ Books reviews
- ◇ Classroom games
- ◇ Reviews of recently adopted resources
- ◇ Good problems for classroom use
- ◇

Email your submissions to our Bulletin editor: [jennywilcox@katm.org](mailto:jennywilcox@katm.org)



Working for ALL math teachers across Kansas.

# Get Connected with KATM and Fellow Educators On Facebook & Twitter



**@KATMWebmaster**

- Keep updated on Conference Updates.
- Keep updated on information about TWO Scholarships we give out each year!
- Keep updated about the changes to Kansas Math Standards.
- Talk with other educators about issues facing math educators.

## Join our Facebook Group and follow us on twitter!

## Election Results

### Congratulations to our new KATM Board members:

**President Elect, Janet Stramel** Dr. Janet Stramel is currently an Associate Professor at Fort Hays State University where she teaches Mathematics Methods and Concepts of Elementary Mathematics. She taught middle school math for 25 years, both in Wamego, Kansas and Guthrie, Oklahoma. She is also a National Board Certified Teacher. Janet is currently the Secretary of KATM, and has presented regularly at the KATM Conferences, and NCTM regional and national conferences

**VP Elementary, Nikki Meier** is a kindergarten teacher for USD 437 at Farley Elementary. She has taught kindergarten for a total of fifteen years, along with directing an after school program K-5 for two years. She just completed and received her National Board Certification.

She has been honored with awards such as National Kindergarten Teacher of the Year 2003, NE Kansas Teacher That Makes a Difference 2003, USD 437 Teacher of the Year 2014, Kansas Teacher of the Year semi-finalist 2014, and Educational Credit Union Teacher that Makes a Difference 2014.

She serves on the Kansas Teacher of the Year Region 2 committee, her school social committee and presents regularly at KEEN, to her district and other schools & conferences. She mentors other teachers and Washburn University students on a regular basis to help promote the education field.

She enjoys spending time with her husband and two children (ages 15 & 11). She teaches swimming lessons to over 100 kids a day during the summer months. In her free time she enjoys digital scrapbooking, reading & being creative.

**VP High School, Will Dunn** My name is Will Dunn, and I teach at Tonganoxie High School. I have degrees from Michigan State University (accounting) and The University of Kansas (mathematics). It has been my privilege to teach in public high schools for four years, and I am excited about the many years that lie ahead. I am running for Vice President (High School) because I believe we teach in a very exciting time to be in the field of math education. The last several years have produced tremendous research and resources that have helped us re-envision what top-tier instructional practice looks like. I further believe in the deep commitment that math teachers in our state have to their own continuous improvement and to the education of our students. I would be humbled by the opportunity to help connect teachers to these new resources and to one another – irrespective of the district or building from which we each hail.

**Secretary, Pat Foster** I have been an active member of KATM. I have served on the Board in the past in the roles of Zone Coordinator, Vice President of Elementary, and President. I have served on the standards writing team in the past and have worked to further math education in the state of Kansas. I taught elementary school for over 20 years before becoming an elementary school principal. I have served in this role for 7 years. If elected, I would relish the opportunity to continue working to enhance the teaching of mathematics for Kansas teachers.

## KSDE Update

### Upcoming Events

#### **Kansas Excellence in Math and Science Education Conference: STEAM Powered**

The best math and science teachers in the state will come together to review, refresh and retool current math and science practices and inspire educators to provide a *“STEAM Powered” classroom to their students.*

I am excited to announce a great opportunity for professional learning for this summer that will help you to really use the implementation of the 2017 Kansas Standards for Mathematics as an opportunity to advance instruction in your classroom, building, and district! The mornings will include guest speakers from KATS, KATM, and others and chances to learn from expert math and science teachers in Kansas.

This will be a great opportunity to be inspired and learn from others, but it's the afternoons that I think will really be fantastic. During the afternoons each day, grade-banded groups will be digging deep into content. Below are the fantastic afternoon sessions we will be offering in **mathematics**:

#### **ELEMENTARY SESSION**

##### **Using Math Discourse to Engage in High Quality Tasks**

Engage in conversations around implementing tasks that promote student reasoning through meaningful math discourse. Opportunities to investigate these tasks will center on number and operation sense in the K-2 grade band and fraction sense and fraction operations in the 3-5 grade band. You will leave with ideas, tools and a supportive learning community.

#### **MIDDLE SCHOOL/HIGH SCHOOL SESSION**

##### **Using Math Discourse to Engage in High Quality Tasks**

Using what we know about the brain and the importance of academic discourse, we will engage in various discourse structures through our time together as we explore high quality tasks in Geometry, and Expressions and Equations. We will keep you actively engaged not only in tasks that you can take back to your classroom, but also in great conversation tools that you can use to help students retain the information!

The **2018 Kansas Excellence in Math and Science Teaching Conference** scheduled for **June 18-19** will be held at Newman University, 3100 McCormick St, Wichita, KS 67213.

During these three days of intense professional learning, you will:

- Network with some of the best math and science teachers in Kansas; Acquire ideas and tools from Kansas math and science education researchers;
- Dig deep into the standards with strategies to move your classroom, building, and district closer to your vision for math and science education;
- Take your teaching to the next level.

#### **Registration Coming Soon!**

#### **Impact Institutes:**

KSDE will be hosting two Impact Institutes this summer.

- June 4-5 – Emporia State University
- July 17-18 – Fort Hays State University

The **math sessions** for this event will be on day one of each institute and will be 3hrs in length.

**Session covered: Encouraging a Growth Mindset through Effective Grading Practices:** What do your grading practices imply? In this presentation we will explore the purposes, concerns, interpretations and impacts of Traditional and Redesign Grading Practices. Time will be devoted for you to determine your perspective on learning and how the actions you take and decisions you make, based on your mindset, impact your students. We will explore the relationship between perceived and implemented grading practices and student mindset development. We will discover how to implement effective grading practices in your school to improve students' perspectives on learning.

### Registration Coming Soon!

#### Training Opportunities

I am happy to announce the creation of multiple website pages devoted to mathematics training opportunities and requests provided by KSDE. Below you will find links to the various pages that contain specifics related to each event.

- [Regional Math Professional Learning Days](#) - One day events held throughout the school year for K-12 math teachers, instructional coaches, and administrators.
- [Individual District Trainings](#) - Trainings that are requested by a district that vary in length and content.
- [Kansas Excellence in Math and Science Conference](#) - Multiple day conference for K-12 math and science teachers, instructional coaches, and administrators.

#### Math Resources to Implement the 2017 Math Standards:

##### Grade Level Focus Documents

The **Grade Level FOCUS** documents have been posted for the field. These documents are aligned with the 2017 Math Standards and should be used in your instructional planning of mathematics.

Not all standards should have equal priority. At every level in mathematics there are intricate, challenging, and necessary concepts that serve as prerequisites for the next level's intricate, challenging, and necessary concepts. In order to help every student achieve success after high school both in the workforce and college we need to give them enough time to succeed in these major areas. The 2017 Kansas Math Standards were built out of the mathematics learning progressions, so priorities were chosen with an eye to the arc of big ideas in the Standards. A plan of instructional focus that respects the learning progressions in the Standards will strike a balance between the path to gaining math understanding and the endpoint of having acquired it.

By using the Grade Level Focus (GLF) documents to inform your instructional practice there could be an approximate 70-20-10 breakdown of time across the three levels, Major, Additional, and Supporting. These numbers are not hard numbers and will fluctuate given the material contained in the various clusters at each grade level. There are times that the content within the Major clusters for a grade level call for more than 70% of the instructional time. Likewise, there are times where there is very little material in the Supporting clusters thus calling for less than 10% of the instructional time. With this in mind the rough 70-20-10 picture, 70 as a lower boundary while 10 is an upper bound.

It is important to note that while the three levels are mutually exclusive in the sense that each cluster belongs to one and only one level, in classroom implementation, the levels can work together to support the priorities of the grade. For example, teachers can view the Additional and Supporting levels in relation to the Major level by pulling the lower-priority material into a lesson that is centrally about more important ideas or topics; e.g., pictographs in Grade 3 could be positioned in direct support of multiplication and two-step word problems.

The **GLF Worksheet** documents have been designed to assist districts in planning their instructional time around the three areas of focus. Feel free to edit these documents to meet the needs of your school/district.

Both the Grade Level Focus and GLF Worksheet documents can be found at: <http://community.ksde.org/Default.aspx?tabid=6340>.

### **Critical Areas for Coherence Documents**

The **Critical Areas for COHERENCE** documents for grade K – 8 have been posted for the field. These documents are aligned with the 2017 Math Standards and should be used in your instructional planning of mathematics.

Mathematics standards are not isolated concepts. They relate to one another both within and across grades. There are three essential considerations that must be made when planning instructional units in mathematics; focus, coherence, and rigor. The FOCUS documents provide a detailed description on where to place our emphasis (focus). This focus will help students gain strong foundations, including a conceptual understanding of concepts, a high degree of procedural skill and fluency, and the ability to apply the math they know to solve problems inside and outside the classroom.

The **Critical Areas for COHERENCE** documents provide K-8 grade level guidance to help lead to coherence within and across grade levels. Each grade level narrative discusses our major emphasis clusters, as well as those essential foundational areas for coherence from grade to grade to help assist teachers in their instructional planning. These documents are also linked within the Standards document itself on each individual Overview Page for grades K - 8. (Recently updated in the standards document.)

The 2017 Kansas Math Standards provide the necessary RIGOR. To help students meet the standards, educators will need to pursue, with equal intensity, three aspects of rigor in the major work of each grade: conceptual understanding, procedural skills and fluency, and application.

The Critical Areas for COHERENCE documents can be found at: <http://community.ksde.org/Default.aspx?tabid=6341>.

### **Student Glossaries**

The student glossary found in the 2017 Mathematics Standards has been posted for the field. The document has been divided into three grade bands (K-5, 6-8, and 9-12) to better aide in your instructional planning. These documents contain some of the important mathematical terms students should have working knowledge of and at what grade band this knowledge should be formulated. The documents were created in PowerPoint to allow teachers to create word walls and graphic organizers for their students. In the notes section of each slide you will see the grade band listed at which the standards and learning progressions for mathematics state a student should have acquired this term into their working mathematical vocabulary.

These documents can be found at: <http://community.ksde.org/Default.aspx?tabid=6381>.



### K – 5 Parent Guides for Mathematics

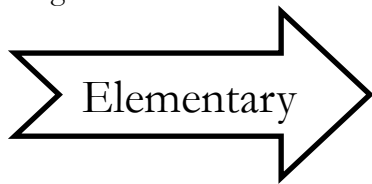
The **Parent Guides for Mathematics** documents for grade K – 5 have been posted for the field. These documents are aligned with the 2017 Math Standards and should be used in your explanation of mathematics to parents. Grades 6-8 and high school will be completed and posted very soon.

These guides are one page documents that can be shared with parents to help provide a clearer understanding of what their child will learn in a specific grade. Furthermore, these documents provide a few activities parents can do at home with their child to further support their learning of mathematics.

The Parent Guides for Mathematics documents can be found at: <http://community.ksde.org/Default.aspx?tabid=5651>.

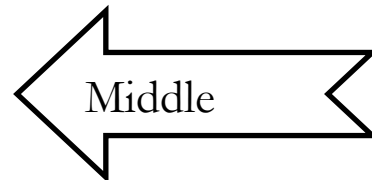
For questions related to mathematics in Kansas please contact Melissa Fast at [mfast@ksde.org](mailto:mfast@ksde.org). Follow us on Twitter @ksdemath

Since our conference theme is “Rules that Expire”, we’ve gotten permission from NCTM to publish their series of articles on rules that expire on the members-only portion of the KATM website. Be sure to log in and check out the article for your grade level. Here are some of the rules that expire:



- When you multiply a number by 10, just add a 0 to the end.
- Addition and multiplication make numbers bigger.

- Keep Flip Change
- The absolute value is just the number



- Use cross-simplifying with multiplication of fractions
- If you have a straight line, it is a function.

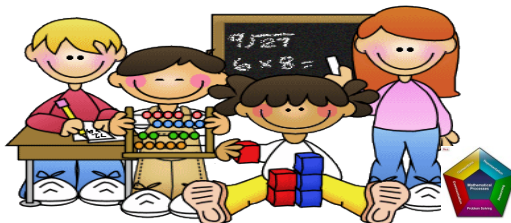
To see the rest of the rules, as well as additional information, check out the full articles.

In addition to these articles, our Vice President Middle School also picked out a great article about choosing good mistakes to learn from. Check out the article “Examining Mistakes to Shift Student Thinking” to learn more about what types of mistakes are the most productive ones to focus on in class.

Log in to the [Member’s Corner](#) on our website to access these articles!

# KATM Bulletin

## KATM Cecile Beougher Scholarship ONLY FOR ELEMENTARY TEACHERS!!



A scholarship in memory of Cecile Beougher will be awarded to a practicing Kansas elementary (K-6) teacher for professional development in mathematics, mathematics education, and/or mathematics materials needed in the classroom. This could include attendance at a local, regional, national, state, or online conference/workshop; enrollment fees for course work, and/or math related classroom materials/supplies.

The value of the scholarship upon selection is up to \$1000:

- To defray the costs of registration fees, substitute costs, tuition, books etc.,
- For reimbursement of purchase of mathematics materials/supplies for the classroom

**An itemized request for funds is required. (for clarity)**

### ***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](http://www.katm.org). The cost of a one-year membership is \$15)

### ***APPLICATION:***

To be considered for this scholarship, the applicant needs to submit the following no later than June 1 of the current year:

1. 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.
2. Two letters of recommendation/support (one from an administrator and one from a colleague).
3. A budget outline of how the scholarship money will be spent.

Notification of status of the scholarship will be made by July 15 of the current year. Please plan to attend the KATM annual conference to receive your scholarship. Also, please plan to participate in the conference.

### ***SUBMIT MATERIALS TO:***

Betsy Wiens  
2201 SE 53<sup>rd</sup> Street  
Topeka, Kansas 66609

*Go to [www.katm.org](http://www.katm.org) for more guidance on this scholarship*



## Capitol Federal Mathematics Teaching Enhancement Scholarship

Capitol Federal Savings and the Kansas Association of Teachers of Mathematics (KATM) have established 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 annual KATM conference. The scholarship is competitive with the winning proposal 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, but are 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 current year.

Be present to accept the award at the annual KATM Conference.

### APPLICATION:

To be considered for this scholarship, the applicant needs to submit the following no later than **June 1 of the current year.**

- 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, Phone: (785)  
862-9433, 2201 SE 53<sup>rd</sup>  
Street, Topeka, Kansas,  
66609



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Consider becoming a member of KATM.

For just \$15 a year, you can become a member of KATM and have the Bulletin e-mailed to you as soon as it becomes available. KATM publishes 4 Bulletins a year. In addition, as a KATM member, you can apply for two different \$1000 scholarship.

Current members—refer three new members and you get one free year of membership!

Join us today!!! Complete the form below and send it with your check payable to

KATM to:  
 Margie Hill  
 KATM-Membership  
 15735 Antioch Road  
 Overland Park, Kansas 66221

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

Home Phone \_\_\_\_\_

HOME or PERSONAL EMAIL:  
 \_\_\_\_\_

Are you a member of NCTM? Yes \_\_\_ No \_\_\_

Position: (Circle only one)

- Parent
- Teacher: Level(s) \_\_\_\_\_
- Dept. Chair
- Supervisor
- Other

Referred by: \_\_\_\_\_

KANSAS ASSOCIATION MEMBERSHIPS

Individual Membership: \$15/yr. \_\_\_

Three Years: \$40 \_\_\_

Student Membership: \$ 5/yr. \_\_\_

Institutional Membership: \$25/yr. \_\_\_

Retired Teacher Membership: \$ 5/yr. \_\_\_

First Year Teacher Membership: \$5/yr. \_\_\_

Spousal Membership: \$ 5/yr. \_\_\_

(open to spouses of current members who hold a regular Individual Membership in KATM)