

January
2011



NEWSLETTER

Kentucky Council of Teachers of Mathematics

Message from the President, Bethany Noblitt

As I write this, my last “Letter from the President,” I reflect upon my time serving the KCTM board. Selfishly, I think of everything that KCTM has done for me! The KCTM board has been a part of my professional and personal life since 2003. I have learned so much and gained so much from this experience. First and foremost, serving on the KCTM board has given me the opportunity to work with and learn from many amazing mathematics educators in Kentucky. It is always so inspiring to see the dedication with which our state’s teachers approach their profession. Whether it was the other KCTM board members with whom I worked, teachers who generously shared their expertise at the annual conference, administrators who supported KCTM and mathematics teaching in their schools, or other education professionals who contributed to the mission of KCTM – all of these people coming together in the name of mathematics education in Kentucky has been a spectacular thing to witness.

I will serve on the board for another two years as Past-President; however, my role on the board will certainly change during that time. I am thankful for the opportunity to continue my work with the KCTM over the next two years – I can’t imagine not being a part of this wonderful, dedicated group of professionals.

I would like to specifically thank the following people for their hard work and dedication. These are the KCTM Board members and regular board meeting attendees who have given KCTM (and me!) so much during the past two (or more, in some cases) years.

Maggie McGatha is the best mentor I could have asked for as KCTM President. Her judgment and advice were always trusted and true.

Kari Ostby was a truly outstanding President-Elect and Conference Program Chair. She was meticulous in the details of conference planning and will be a wonderful President.

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Message from the President, contd.

Valeria Amburgey has worked diligently with the mathematics educators across Kentucky, through KCTM and other organizations. Her commitment to keeping mathematics educators connected is appreciated.

Seth Hunter is dedicated to the growth of KCTM as a professional organization. With the help of his vision and determination, KCTM will grow and prosper.

Jamie-Marie Wilder is a dependable and trustworthy KCTM advocate. Her help on the board has been and will continue to be so very valuable.

Julie Dunn has been a very effective Elementary Vice President, most notably starting up the KCTM Facebook page. Julie will be moving into the position of President-Elect and I look forward to seeing her positive influence on the annual conference.

Susan Collins is the most dedicated board secretary I have ever known. She has served the board for many years and her knowledge of KCTM as an organization has been so very helpful to me as I served as President.

Barbara Jacobs is so conscientious and highly capable in her role as treasurer. The board is so lucky to have her serving in this role.

Mike Waters has served the KCTM board well, most notably through his hard work with setting up a new KCTM website and keeping conference registration running smoothly.

Amy Herman has brought knowledge of the organization that has helped us make many important decisions as a board. Her input was very valuable to me as the board considered it's work.

Gloria Beswick served the board well, mainly working with vendors during the annual conference – a tough job that she did very well.

Robin Hill's input as the KDE representative was so important to the KCTM board. Her presence at our board meetings sent the message to us that we are important in the eyes of KDE. I know Robin will continue to foster this relationship.

Laura Bristol brought a KCM presence to the KCTM board. Her presence and participation in board meetings prompted a very successful KCTM/KCM collaboration at the fall 2010 annual conference.

Martha Ferguson has completely revamped the KCTM Newsletter to its new format. The newsletter looks great.

Emily Butler served KCTM as our KCTM Products chair. Emily was so creative in her ordering of KCTM products. KCTM has the best "goodies" around thanks to Emily.

Again, "Thank You" to all of the KCTM board members and the KCTM membership for a wonderful experience serving as KCTM President. I will cherish my KCTM family always.

Bethany Noblitt, Outgoing KCTM President

KCTM Update

The 2010 annual KCTM Conference in Somerset is now over and hopefully you were able to take back lots of good information and ideas to use in your classrooms. Thank you to all the speakers at the conference. We had nearly 120 total speakers and a total of 140 sessions!!! Lots was also learned from our featured speakers Greg Tang and Brennon Sapp, as well. I would like to thank all those who attended and who helped to make the conference a success. It was a very different, yet enjoyable, setting this year in a conference center.

Kari Ostby, KCTM President

NCTM Update...DID YOU KNOW?

Did you know that our very own outgoing KCTM President, Dr. Beth Nobliit, is now the new Central 1 Region Representative on the National Council of Teachers of Mathematics Affiliate Services Committee? Beth is very excited to serve as your representative on the NCTM Affiliate Services Committee. She hopes to attend other states' annual conferences and meetings. In doing so, we hope to learn from those states around us how they are helping to shape the future of mathematics education.

Congratulations Beth and thank you for your continued commitment to educating our kids!

It's Time to Register for Indy



It's time to register for NCTM's 2011 Annual Meeting in Indianapolis, April 13–16. Attend the NCTM Conference and hear from leading experts in math education and choose from more than **650 presentations**. Whether you're a classroom teacher, administrator, new teacher, or math coach, there's something for everyone in Indianapolis! Visit the online [Preview](#) to learn more about the meeting and the presentations offered—or you can search the entire program by using the [Online Conference Planner](#). Mark your calendars and be sure to [register](#) by March 4 to save up to 25%.

Kari Ostby, KCTM President

KCTM 2011 Conference

Our 2011 annual KCTM conference will be held on October 8, 2011, at South Warren High School in Bowling Green, KY. Bowling Green is easily accessible from Interstate 65 and the Natcher Parkway. South Warren is a beautiful campus just recently constructed and will prove a fabulous location for our annual conference. You will receive an email when online registration is available around March. If you have any questions, feel free to email Julie Dunn at julie.dunn@shelby.kyschools.us. Hoping for a great turnout in 2011!

Julie Dunn, KCTM President-Elect & NCTM Representative



Spotlight on Teaching



Michael Baugh
Ludlow Middle School
Ludlow, KY



"I'd rather be green and growing than ripe and rotting." Mike Baugh subscribes to this saying in his life as a middle school mathematics teacher at Ludlow Middle School in Ludlow, Kentucky. In August, he began his ninth year of teaching. In those nine years, he has taught 7th grade math, 8th grade math, 8th grade honors algebra I, 9th grade algebra and 9th grade honors geometry.

I had the pleasure of working with Mike this summer in two graduate courses at Northern Kentucky University. In these classes I witnessed his dedication to remaining "green and growing." He is dedicated to his own mathematical learning with the ultimate goal of improving his students' learning. It is not only his dedication to academics that makes Mike a joy to work with, it's his personality and presence. Mike has a calming presence about him, always accompanied with a smile. I have never seen him with less than a wonderfully positive attitude. I have seen his students' reaction to him and his personality – and it's awesome. His classroom atmosphere is obviously one of mutual respect and learning. It is evident to me that he has made his classroom a "home" for his students.

Mike says that his favorite part of his job is helping students discover new concepts, and new and different ways of seeing math. He says, "I really enjoy looking for creative ways to help students have the "Aha" moments." He is most proud when he helps students gain the knowledge that is expected for the next year. By providing them with this prerequisite knowledge, Mike is preparing them to take the next step towards graduation. Participating in the graduation ceremony in his

district, he sees his previous students graduate, knowing that he has participated in guiding their education. Mike said, "Each time that I sit graduation watching my students step up to receive their diplomas, I reflect on how my daily efforts to reach and to teach my middle schoolers serve to help form the foundation upon which they continue to grow, achieve and realize their goals - preparing them for life." Certainly, educators across the state of Kentucky can identify with and appreciate Mike's sentiment.

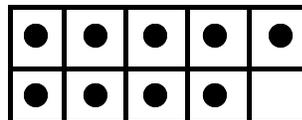
Mike's favorite math activities are hands-on activities and activities involving manipulatives, specifically activities involving hands-on equations. He believes these activities help students discover mathematical concepts and connections. One of his favorite activities is one in which students measure the rise and the run of different staircases throughout the school building to discover the steepness. He has found that this activity allows them to make connections between steepness and slope.

When asked what advice he would give to new teachers, Mike says he would advise them to be creative in their teaching of students and to have the open-mindedness needed to explore new avenues for students to discover math. This brings us back to the opening quote of this Teacher Spotlight, "I'd rather be green and growing, than ripe and rotting." Mike has certainly shown that he epitomizes the "green and growing" teacher. Thanks for all of your hard work, Mike.

Bethany Noblitt

Number Sense Throughout the School Year, Julie Dunn

A ten frame of nine dots is flashed to individual second graders. The question “How many did you see?” is posed by the teacher. Consider the various responses of second graders:



- Nine. I saw five on the top and counted the rest. Five, six, seven, eight, nine.
- Nine. Well all boxes filled in is ten and there is one missing.
- Nine. I know that four and four makes eight and there is one more dot so that’s nine.
- Ten. I counted by two’s. Two, four, six, eight, ten.
- I think nine. I counted by two’s. Two, four, six, eight, and one more makes nine.
- Nine. I just knew it.
- I don’t know. I only counted to three. Can you show me again?

This task exposed ways that students are able to think about mathematics in initial, developing, and more advanced stages of thinking about number. Although a seemingly simple task, this task revealed different levels of number sense.

What is number sense?

It is easier to identify a child with good number sense than define number sense itself. Number sense, also known as numeracy, number, or number knowledge, is a difficult concept to confine into a succinct definition. Even elementary teachers who have taught for decades find it tough to conjure an explanation. Howden (1989) defined number sense as a “good intuition about numbers and their relationships. It develops gradually as a result of exploring numbers, visualizing them in a variety of contexts, and relating them in ways that are not limited by traditional algorithms” (p. 11).

Elementary educators often deem number sense as the basics of math- reading numbers, writing numbers, and counting. While these skills are crucial, number sense encompasses so much more than that. Greg Tang, author of *The Grapes of Math*, contends, “Counting is the root of all evil.” Tang continues that when a person merely counts, they are breaking numbers into ones and that when numbers get larger this is a difficult way to work with numbers. Tang states, “If I say the number ten, do I want a kid to be thinking, one, two, three, four, five, six, seven, eight, nine, ten? No. I want him to think five and five, six and four, seven and three, eight and two, nine and one.” While counting is an important foundational skill in number sense, children must move past counting by ones to more efficient strategies.

When to teach number sense

With great emphasis upon assessments, curriculum, and the new Kentucky Common Core Standards, school and district administrators across our state, nation, and beyond have been requiring teachers to follow curriculum maps to ensure students are exposed to all grade level content during the school year. While these documents are important, it is imperative to recognize that “number sense is not a discrete set of skills to be taught for three weeks in October or something that only those that are ‘good at math’ have. It is a part of children’s daily mathematical lives and slowly grows and develops over time” (Carboni). Therefore, it is imperative that teachers provide ample time for students to learn and practice number sense every day throughout the school year.

(Continued on page 6)

Number Sense Throughout the School Year, contd.

Developing number sense

Counting

Oftentimes found in kindergarten and first grade classrooms, counting forwards *and* backwards should be practiced in all elementary grades! While it is easy to start with “friendly” numbers such as 1, 10, 20, or 100, it is important to give students practice with unusual starting numbers such as 17 or 102. Also students generally think there is only one way to count by tens- 10, 20, 30, 40, etc. However, isn’t 4, 14, 24, 34, and 44 also a way to count by tens? Using uncommon numbers allows children to be more flexible in their thinking about numbers and thus promotes stronger number sense. Besides just counting whole-group with a hundreds chart, students could work in partners with a calculator starting at a given number and hitting +1 or -1 to count by ones, +5 or -5 to count by fives, and so on. One way to spruce up hundred chart activities is to print a hundreds chart onto cardstock and cut out random Tetris-shaped pieces to create one hundred grid puzzles for students to solve.

Finger patterns

Although using fingers is often deemed taboo in elementary mathematics, finger utilization is foundational for number sense. Knowing that ten is the basis of our number system and that five is half of ten, fingers are a practical tool for partitioning and combining numbers up to ten. First have students show you numbers and read numbers up to five with fingers. When students can do this quickly, work numbers up to ten. Be sure to notice if students have to see their fingers, count their fingers, or can make a number simultaneously. When working up to ten, pay attention to students that use the full hand of five and count on or if students still have to start back at one and count. To increase difficulty, have students place hands on heads like bunny ears to make numbers to remove the visual of seeing their fingers.

Five and ten frames

Using five or ten frames, flash the frame to students and see how quickly students can determine the number of dots shown. For variation, ask students for one/two more or less, how many more to make five or ten, or ask them to represent the number on their fingers.

Online resources

The following are excellent resources for keeping number sense in your classroom throughout the school year.

- <http://www.kentuckymathematics.org/resources/tools.asp>
- <http://nzmaths.co.nz/number-knowledge-lessons>
- <http://nzmaths.co.nz/sites/default/files/Numeracy/2008numPDFs/NumBk4.pdf>
- <http://illuminations.nctm.org/ActivitySearch.aspx?grade=1&grade=2&grade=3&grade=4>

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Carboni, L. *Number sense every day*. Retrieved from <http://www.learnnc.org/lp/pages/783?ref=search>

Howden, H. (1989). Teaching number sense. *Arithmetic Teacher* 36 (6): 11.

Tang, G. (Interviewee). *A video interview with Greg Tang*. Retrieved from All About Adult Literacy Web site: <http://www.adlit.org/authors/Tang>

Julie Dunn, KCTM President-Elect & NCTM Representative

Inch or Centimeter...What's the Difference? Jamie-Marie Wilder

It seems that the term, “life-long learner” has become a buzzword in education these days. Although this word may be en vogue currently, I believe that it is a term that more of us mathematics teachers should embrace. Years ago when we were students, algorithms were emphasized as a means of solving problems. Now, problem-solving, reasoning and proof, and connections are skills that are becoming more emphasized in our textbooks, curriculum and standards.

I have always been a believer that not only a teacher, but a person is never finished learning. This year has been a year in which I have pushed myself to learn more about mathematics. I am teaching algebra this year to eighth graders for high school credit. Although I taught algebra years ago at the high school level, there is something about teaching those same concepts that are so heavy in algorithmic thinking to middle school students. Middle-schoolers are inquisitive by nature and always what to know “why.” I rarely questioned any of the algorithms when I taught algebra years ago. Algorithms were the rules that governed mathematics and needed no explanation. However, I am learning that in order to students to consolidate their understandings, they need experiences in the mathematics classroom that can help them to explore and connect their discoveries.

I have begun to focus my new learning on how to best provide labs in which students discover numeric patterns that demonstrate attributes of linear functions such as rate of change (also known as slope). Students are pattern-seekers by nature and I want to use this characteristic that most middle school students possess in order to help them discover the meaning of rate of change. If they can discover how to derive rate of change and understand the meaning of this concept, I believe that students can access a greater part of our world of mathematics.

Attached to this article is a lab that I use in my algebra class. The lab examines the relationship between measuring in inches versus centimeters. So often when we measure in class, students do not know which side of the ruler are inches and which side are centimeters. Quite often when I work with students on measuring their response is “inches or centimeters...what is the difference?” This question gave me the idea to create this lab.

This lab only requires a teacher to gather a variety of objects that students can measure lengths in both inches and centimeters. Objects could include books, boxes, posters, or even the furniture in the room. Students only need the lab sheet that is attached at the end of this article, ruler(s) with inches or centimeters markings and possibly a graphing calculator if the teacher wants to integrate technology.

Students collect data by measuring the length of an object first in inches and then in centimeters. These values are written in a table. This table of values will then be used to create a scatter plot and then derive a linear equation. This lab integrates several skills in an authentic manner instead of treating them as isolated skills.

As the lab unfolds, students should see that their rates of change are very similar in value regardless of which objects they choose. The rate of change is approximately 2.54, which is the number of centimeters in one inch. I love this activity because it demonstrates the rate of change in such a contextual manner and it answers that question my students have posed, “inch or centimeter...what's the difference?”

Jamie-Marie Wilder, KCTM Middle School Vice President

Name _____

Inch or Centimeter...What's the Difference?

Usually measuring in inches has been confined to the mathematics classroom and measuring in centimeters has been confined to the science classroom. Although the units are different, there is a mathematical relationship between the two. Your job is to find the mathematical relationship by collecting data.

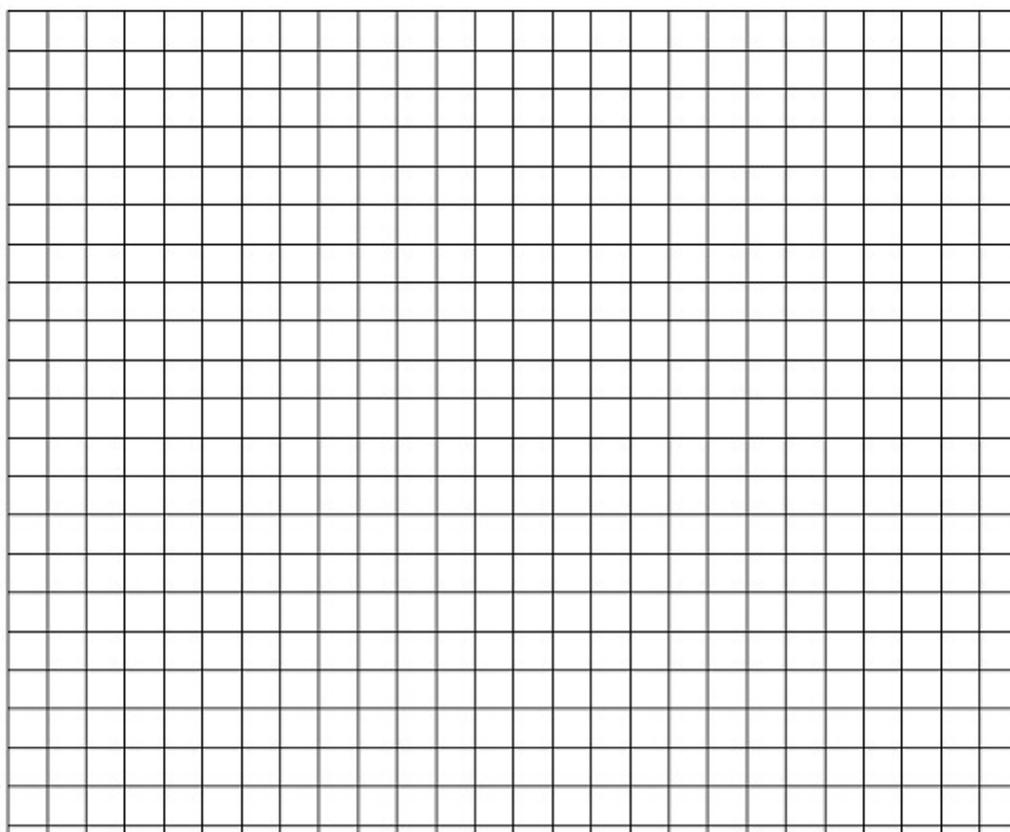
Begin this process by selecting six items in the classroom that you can measure the length, width or height of with the use of a ruler. As you are measuring the object, remember to measure in both inches and centimeters. These two measurements will be written in the table which will be the basis for creating a scatter plot and then calculating the rate of change.

1. Fill in the table below with the length of an item in both inches and centimeters.

Object	Inches	Centimeters

2. When comparing the measurements in inches and versus centimeters in the table, what trends do you see?

3. Using your data from the table, create a scatter plot. Remember scale, labels and title!!



4. Draw a line of best fit for your scatter plot.
5. Using your line of best fit, interpolate (estimate within the data set) length of an object in centimeters when the length is 5 inches. _____
6. Using your line of best fit, interpolate (estimate within the data set) length of an object in inches when the length of the object is 15 centimeters. _____
7. Choose two lattice points that are located on your line of best fit and calculate the linear equation. Show work below.

8. Using the Stat Function on your graphing calculator, calculate the Linear Regression for the line of best fit. (Round your answers to the nearest hundredth.)

Y= _____

9. Is the linear equation that you calculated in Question #7 similar to the linear equation that you found by your graphing calculator in Question #8? If not, check your answers again and explain why you think they are different.

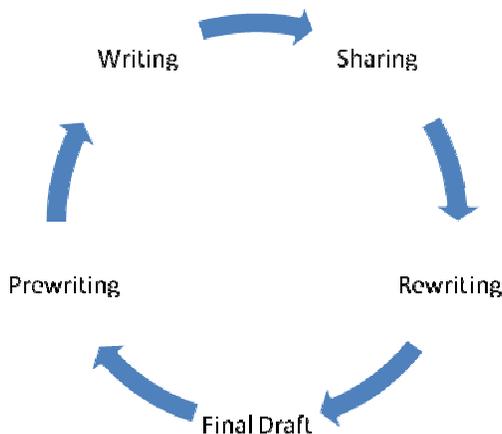
10. Examine the rate of change (slope) of the linear equations you have derived from this data.

What is the significance of this number in this activity?

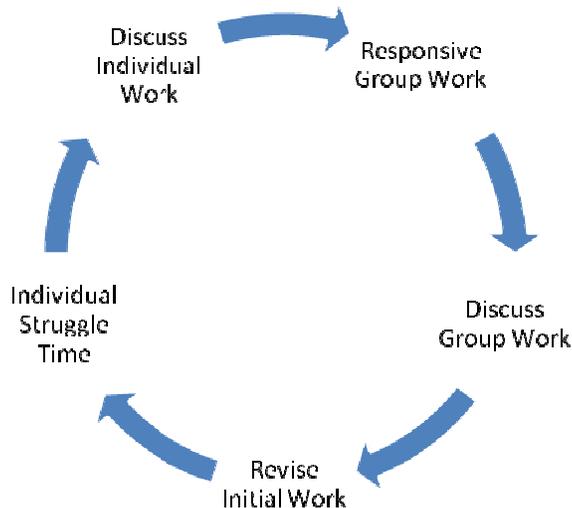
How can the rate of change (slope) be used in a real-world context?

Developing Persistence, Student-Centered Problem-Solving, and Reflective Thinking, Seth Hunter

I have a confession for all of you, one you may not want to read. I am a Louisville Writing Project Fellow. Yes, it is confusing. For some, it may be disappointing. Math teachers, particularly high school math teachers, are typically wary of the writing clan, but there are some really good reasons to learn more about the art of writing and how it can be used to do all the things the title of this article includes. In short, the writing process is about developing ideas and we could all use ways of helping our students better develop their mathematical ideas.



The graphic above depicts an ongoing writing process that can be mapped to a somewhat formulaic planning process for student-centered and problem-based mathematics learning.



Individual Struggle Time (Prewriting)

Probably the least comfortable component of this plan, because it involves purposefully allowing students to struggle through a mathematical task that may be non-routine, unusual or make connections to a broad range of mathematical content, but the task must always be new in the sense that students have

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Developing Persistence, contd.

to make decisions about how to apply previous knowledge (see the example Fermi Estimate I to the left). Allowing students to try and make mistakes during this portion of a lesson, when their pleading eyes beg for your help, requires the grim determination only a high school math teacher can muster.

The purposes of this struggle time include, but aren't limited to:

- Developing persistence in problem-solving

- Allowing you to learn what your students are capable of individually on such a task

- Generation of many different strategies that could be used to solve such a task

Students are not expected to complete the problem at this time! As you are circulating and observe “what your students are capable of” and see “many different strategies” take form, phase one of this writing process is complete.

Discuss Individual Work

This is to be a short discussion of some of the strategies attempted by your students and it should not attempt to bring closure to the lesson. I want to reiterate, it should not bring closure to the lesson. The main purpose of this step of the process is to let your whole class hear the variety of sample strategies generated by their peers when trying to solve the problem. If a faultless and correct strategy is shared, you cannot acknowledge it during this time because the magic of mathematical discovery and satisfaction of self-improvement may be lost!

Students should not revise their initial brainstorm at this point and after the brief, informal discussion, all individual work should be collected for later revision.

Responsive Group Work

In essence, the first two phases of this learning process are an extended prewriting. First, the brainstorming is done individually, and then continues as a group exercise during the “discussion of individual work”. These two phases are also designed so that when circulating during the first phase, listening during the second, and then reading through individual collected work, the instructor can gather information helpful in grouping students for a second try at a similar problem (see example to the side)

What ever the focus of your lesson (in this case estimation, modeling, and number and quantity) the second task to be solved by the recently formed groups must be somewhat similar to the first *although it should not be the first but with different numbers!* Collaborative problem-solving is meant to build on the variety of individual strategies shared in the previous stage, not repeat a process but with different digits.

“Responsive group work” is similar to a collaborative writing experience. Individuals come together, share and exchange ideas, and then act on those ideas to write, in our case, a solution or viable argument. Group work, under this design, is “responsive” in the sense that you, the instructor, have responded to the information you observed, heard, or read from the prior two stages and used that data

Fermi Estimate I

What is the weight of all the trash produced in your house in a year?

Assumptions:

Calculation:

Balanced Assessment in Mathematics Project

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<http://balancedassessment.concord.org/>

(Continued on page 13)

Developing Persistence, contd.

to group students and provide special assistance where needed. It is during this phase of the process that the student groups themselves refine, make sense of, or reason through the appropriate and underpinning mathematical ideas of these tasks; under the artful facilitation of a teacher who has carefully planned questions and questioning techniques.

It is important to note that if this is to remain student-centered problem-solving, you cannot reveal the mathematics, even if the class as a whole struggles, although it is appropriate in extreme circumstances to provide students with leading questions, subtle hints, etc. Knowing the difference between nudging a student towards a strategy and robbing them of true mathematical thinking is something we and our colleagues must be able to distinguish between for this kind of teaching and learning.

Discuss Group Work

Students have now had an opportunity to struggle through a challenging rich task, listen to a variety of strategies about how to get started in solving such a task, put their heads together with peers for a group problem-solving experience, and have carefully been guided along the way by their teacher. Now is the time to have the serious mathematical discussions.

Based on whatever grouping format you prefer (assigned roles or voluntary “reporters”), a representative of the groups, or the entire group itself depending on time, presents their solution to the second task solved. It is not necessary for all groups to present, since the presentation is not the culminating activity, although that depends on the needs of your students (which you learned of in the first two phases and as you continued to observe during the previous) and the variety of strategies employed in solving the problem. The goal at this point is for some groups to essentially reveal viable mathematical strategies or arguments to their peers.

Revise Initial Work

Individual students have individually and collectively “prewritten” a solution to the original problem, then “wrote” a reasonable and robust solution to a second similar task, and now it is time to “revise” and then turn in a “final draft”. After student groups have presented, it is time to pass back the work you collected after the “discussion of individual work”. Students who struggled or came up with faulty solutions during the struggle time now have an opportunity to improve their work because they have, throughout this process, improved their understanding. Some students’ individual work will have already been reasonable and viable, so it is their task to connect their ideas to the ideas presented during the “discussion of group work”. Every student in the room, regardless of the sophistication of initial work, engages in this reflective process of self-improvement.

Students brainstormed initial solutions, students discussed those solutions, the teacher provides a second opportunity to improve individual student understanding during student-centered group problem-solving under the teacher’s facilitation, students then share their written work, and then finally use what they have learned during this process to revise and improve their initial understanding. I’d like you to reread the previous sentence, counting how many times the word “student” is written or referenced. In a student-centered classroom focused on developing ideas, students should be the focus.

(Continued on page 14)

Fermi Estimates II

How many hot dogs are sold in a baseball season at Fenway Park?

or

How many times does a person’s heart beat in a lifetime?

Balanced Assessment in Mathematics Project

Copyright © 1995, President and Fellows of Harvard College

<http://balancedassessment.concord>.

Developing Persistence, contd.

It goes without saying that the quality of mathematical tasks used makes a significant impact on this type of learning experience. By visiting <http://balancedassessment.concord.org/> you will find many quality tasks that you could use, although the grade level alignments may be off. These tasks are free and this site is an amazing resource. Thanks to Debbie Waggoner for sharing.

One pitfall of group problem-solving are the freeloading students who seem to be learning, but don't walk away with any new mathematical ideas that stick. If students revise their initial work *and* if the second group task isn't too similar to the first, then I believe the odds that a freeloader memorizes a correct solution without learning a viable strategy are lessened.

This article did not address timing. It may be the case that for 50 minute class periods this could take two periods, with phase one and two on day one, and the rest on day two. Block scheduling may allow for completion of the entire process in one period. Bottom line...this takes time.

If you decide to try this model in your room, please share on Facebook or with me (seth.hunter2@education.ky.gov) so that you, I, and your KCTM colleagues can do a little brainstorming, sharing, writing, revising, and publishing of our own.

Seth Hunter, KCTM High School Vice President

November KCTM Executive Board Meeting Minutes, Susan Collins

November 13, 2010 (10:00am)

Gheens Academy

Beth Noblitt	Kari Ostby	Susan Collins	Maggie McGatha
Julie Dunn	Amy Herman	Mike Waters	Seth Hunter
Gloria Beswick	Robin Hill	Laura Bristol	

I. Approval of the August 2010 meeting minutes

Maggie made a motion to accept the minutes with one change in item VII. "Julie" not "Mike" will be sending an e-mail to all members inviting them to join us on facebook. Julie seconded the motion. Motion passed.

II. Changes to Agenda

There were no changes to the agenda

III. President's Report – Beth Noblitt

- Beth said her farewells as President and welcomed Julie Dunn as the incoming President-elect. Beth also reminded the board that she is involved with NCTM and encouraged us to consider what NCTM can do for KCTM.
- An NCTM National Conference is coming to Indianapolis and Beth asked us to consider being a volunteer for the conference especially since Kentucky is still in the running for an upcoming regional conference.
- On November 30th, Beth will be having a workshop for the pre-service teachers in the Northern Kentucky

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November KCTM Executive Board Meeting Minutes, *contd.*

area and hopefully this workshop can serve as a blueprint for other workshops throughout the state.

- Congratulations to the recently re-elected officers: Seth Hunter as High School Vice President, Jamie-Marie Wilder as Middle School Vice President and Susan Collins as Secretary. The board appointed Cortney Inklebarger to complete Julie Dunn's term as Elementary Vice President and appointed Amy Hunter as products chair.
- Beth initiated a discussion with the board about a possible change in the by-laws for President-elect. No decision was made. Some possible rewordings will be presented to the board at the February meeting.
- Before the conference, Beth and most board members received an e-mail of concern about out-of-state speakers needing to be a member of KCTM in order to speak at the conference. A lengthy discussion followed. The board recommended keeping the current policy without any changes.

IV. Treasurer's Report – Kari Ostby

Barb was unable to attend the meeting, but sent a treasurer's report for this quarter and a proposed budget for 2011.

Beginning Balance	\$4,783.49
Total Income	\$26,413.49
Total Expenditures	\$23,793.27
Ending Balance	\$7,403.71
Total in savings	\$42,642.53

- The majority of the income was conference registration.
- The majority of the expenses were conference related.
- Maggie made the motion to increase the conference registration line item from \$6000 to \$6600 in the 2010 budget. Susan seconded the motion. Motion passed.
- One new line item in the 2011 proposed budget was \$400 for President-elect conference expenses. The intent of this line item is to reimburse the president-elect for hotel expenses that may be incurred as program chair for the annual conference.
- The recommendation was made to purchase matching shirts for the KCTM officers to wear each year, at the conference, to make them more visible. In order to accommodate for this purchase, the "Products" line item was increased from \$3000 to \$3500. Mike made the motion for the board to accept the proposed 2011 budget with the above mentioned change to the "products" line item. Maggie seconded the motion. Motion Passed.

V. 2010 Conference Report – Kari Ostby, Laura Bristol

The conference had approximately 350 attendees. The board was provided with a nice handout of the attendee's demographics and comments. Feedback included: Greg Tang was spectacular and the curtained walls allowed too much noise to travel from session to session. The board expressed a big thank you to KCM for helping to sponsor Greg's trip. Laura reported that KCM was happy with the turn out and Kari reported that having pre-assigned duties for the board members went extremely well. George Goldworthy with Academic Edge is interested in helping KCTM with some marketing ideas for the conference. Kari received the board's approval to invite him to the February board meeting to share his ideas. Due to this year's format for the conference and the fact that it was necessary for Kari to stay in a hotel for three nights, Maggie made a motion for the board to reimburse her hotel expenses for this year's conference. Seth seconded the motion. Motion passed.

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VI. 2011 Conference Report – Julie Dunn

South Warren High School is the location for the next conference. A decision about the date for next year was to keep it in October, but try to avoid the Warren County/ Bowling Green area fall break. Julie is planning to meet with the area person to tour the facilities and will inquire about the available technology. KCTM will continue to furnish speaker bags instead of offering a hospitality room.

VII. NCTM Update – Kari Ostby

A survey was sent from NCTM concerning the common core standards. Kari asked Seth to complete the survey and shared the results with the board.

VIII. KDE Report – Robin Hill

The Kentucky Assessment RFP is still being written. The end-of-course testing will begin at the high school level with Algebra II in the spring of 2012. Grades 3 through 8 will be using a combination of norm-referenced and state level testing. The Explore, PLAN and ACT testing will still continue. Kentucky has withdrawn from the American Diploma Project. Robin has not answered the frequently asked questions from the KCTM conference yet, since the questions were more about assessment than standards and the assessment questions cannot be addressed until the RFP is finalized. KDE will be hiring 3 new consultant positions in the area of mathematics (a STEM consultant, an interventions specialist, and an elementary consultant.) Robin is continuing her work with SREB. SREB is currently working on a course with informatics. The Presidential award this year is for grades 7-12. The website is open and applications are now being accepted.

IX. Other

Seth expressed concern with the “4 years of math, must pass three” curriculum requirements that are about to take effect. What can be done with the senior apathy issue for students that already have 3 credits, but are being required to take a fourth course. Robin mentioned that the wording had been revised and offered to e-mail the new guidelines to the board.

Board meeting dates for 2011 were set for February 19th, May 21st, August 6th, and November 12th

Beth made a motion to adjourn the meeting. Susan seconded the motion. Motion passed.

Susan Collins, KCTM High School Vice President

KCTM Governing Board

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President-Elect/NCTM Rep: Julie Dunn
Past President: Bethany A. Noblitt
Secretary: Susan Collins
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High School Vice-President: Seth Hunter
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Elementary Vice-President: Cortney Inklebarger
KDE Representatives: Robin Hill and Chyleigh Rose

KCTM Affiliate Representatives

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EKCTM: Joyce O. Watson
GLCTM: Amy Herman
KCM: Laura Plante
LCTM: Natalee Feese
NKCTM: Mike Waters
WKCTM: Susan Collins
BBCTM: Margaret Mohr



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