Central Texas Council of Teachers of Mathematics
CTCTM Newsletter
Fall 2012

Greetings to all Members of CTCTM!

It's welcome back to school time! At the end of the CTCTM Spring Conference, I officially began my term as President of CTCTM. Since then, the Executive Council has met a couple of times to set goals for the coming year and organize strategies to accomplish these goals. In addition to our annual events, the leadership of CTCTM plans to organize activities to: 1) Enhance Communication with Membership, 2) Recruit New Members, 3) Impact Regional Mathematics Education Community, and 4) Support Continued Professional Development for Preservice Teachers. As a member of CTCTM, please think of ways that you might support these goals or become involved in volunteer opportunities to assist in various activities. You may certainly recruit new members by inviting your colleagues to the annual CTCTM events.

In regards to our annual events, be sure to include the annual CTCTM Fall Meeting and Spring Conference on your calendars. You will find more detailed information in this newsletter about each event, but the Fall Meeting is planned for Tuesday, October 16 from 5:00 – 6:30 on the Baylor University campus in Draper 116. There will be three highlighted presentations of helpful instructional ideas, along with updates from the organization. The Spring Conference is planned for Saturday, February 23, 2013 from 8:30 – 1:00 at University High School in Waco, Texas. As usual, we will begin with a keynote speaker and various breakout sessions following.

For mathematics educators in the state of Texas, the important news on the horizon is the adoption of new Math TEKS. These were adopted by the SBOE in April, 2012 and are posted on the TEA website. Be sure to become familiar with these as they will be implemented soon. So much is happening at the state level and national level in regards to mathematics education. Please consider becoming a member of the Texas Council of Teachers of Mathematics (TCTM) and the National Council of Teachers of Mathematics (NCTM) to receive membership benefits that will provide you with the latest in news, instructional ideas, and professional development opportunities.

As a member of CTCTM, please consider ways that you can become more involved in this organization. There are opportunities to serve on committees and/or to serve as an appointed or elected position on the Executive Council. If you are interested, please contact me at sandra_cooper@baylor.edu. In addition, I want to hear your ideas about how CTCTM can play a more significant role to promote Mathematics Education in our region. Send me an e-mail and let's brainstorm ways to enhance math learning for all our students!

Have a great beginning to a wonderful school year!

Sandi Cooper
President, CTCTM
2012-2014

President

CTCTM Fall Meeting

Date: Tuesday, October 16

Time: 5:00-6:30 pm

Location: Baylor University, Draper 116

Mathematical Tug-of-War
Sometimes problem solving in the classroom can be like a tug-of-war. However, the problem solving tug-of-wars can be well worth the time and effort when teachers are able to provide students with rich, thought provoking problems that allow them to utilize their critical thinking skills.

What does problem solving look like in 1st grade or 5th grade? What about middle or high school? What strategies do your students utilize when solving problems? Come to the CTCTM Fall Meeting to further explore the depths of problem solving.

Presenters:
Mary Jo Montgomery, Penelope ISD
Lisa Hudson, McGregor ISD
Vicky Brown, Waco ISD

Come hear about CTCTM Updates and News!
Light Refreshments and Door Prizes will be available!

Open House
in the School of Education at Baylor University!

Sunday, September 9, 2012, 2:00-4:00 PM

Come enjoy a "Sundae on Sunday" and learn more about all of the valuable resources available in the Mathematics Education Lab (Draper 211), Science Education Lab (Draper 215), and the Learning Resources Center (Draper 208) in the School of Education at Baylor University. This will be a "come and go" event, so come see the latest materials, manipulatives, equipment and books, hear about upcoming special events, and meet faculty and staff in these areas.

October 27, 2012
7:30 am – 4:30 pm
University High School

Our very own Central Texas <u>Technology</u>, <u>Mathematics</u> and <u>Science</u> Conference
Sponsored by Baylor University
For more information, registration forms, and speaker proposal forms, visit:
http://www.baylor.edu/soe/T3regionalconference

From 'Flatland' to 'Sphereland' and Beyond'
September 20, 2012
4:00 – 6:00 pm
D109 of the Baylor Sciences Building

Professor Tom Banchoff (Brown University) and Movie Maker Dano Johnson (Collection Agency Films)

4:00 pm – Dr. Banchoff's lecture "*From 'Flatland' to 'Sphereland' and Beyond*"
5:00–5:45 pm – Reception with light snacks and refreshments and culminate with Dano introducing the Baylor premiere of his latest movie "Flatland 2: Sphereland", the much-anticipated sequel to his 2007 hit movie "Flat land: the Movie".

This event is co-sponsored by
BURST (Baylor Undergraduate Research in Science and Technology)
and MÖBIUS, Baylor's Math Club

Math in the Middle

   The increasing diversity that is faced by many teachers in the classroom requires that we shape curriculum and instruction to maximize instruction for all students. In her book <u>Good Questions: Great Ways to Differentiate Mathematics</u> <u>Instruction</u>, Marian Small has given us a resource with strategies to help teachers meet the needs of students who are at different levels in their mathematical development.

   The author discusses the importance of using differentiation in the mathematics classroom in Chapter 1 and how to use the book to assist the teacher in implementing differentiation. She describes two primary strategies, open questions and parallel tasks. Open questions allow students to participate in a mathematical discussion at many levels while parallel tasks give students choice but are organized around the same big ideas.

   Chapters 2-6 focus on the five content strands as determined by the NCTM. Each chapter is broken into sections for PK–2, 3-5, and 6-8. For many of the tasks described, follow-up questions that can be used in the classroom are posed. Teaching tips are also included in each chapter. Following is an example for grades 3-5 from the number and operation strand.

   Big Idea- There are many ways to add, subtract, multiply, or divide numbers.
An <u>open question</u> for this big idea is "You know that 3 x 5 = 15. What other multiplications could be easier for you to do because you know this?"
<u>Parallel tasks</u> for this big idea might be: <u>Choice 1</u>- You add two numbers and the answer requires more base ten flats than rods and more rods than ones. What numbers could you have added? Explain. <u>Choice 2</u>- You add two numbers and the answer requires no base ten flats and more rods than ones. What numbers could you have added? Explain.

   The book closes with a discussion of the general process a teacher would use to create open questions and a set of parallel tasks. I really like that there are many practical suggestions and examples ready for classroom use as well as an organized index of big ideas separated by strand and grade level.

   I am looking forward to using this book in helping me better differentiate my teaching for the upcoming school year. I received my copy from a region 12 workshop and all the participants enjoyed it and were excited by the possibilities we found. This book would be a great addition to your bookshelf and is currently on sale at the NCTM website for only $12. Note that the author has also written a companion volume for grades 7 – 12.

-Lisa Hudson, V.P. for Middle School

NEED GREAT LESSON IDEAS?
Check out this great web resource from NCTM at…

http://illuminations.nctm.org/

Updates and Ideas
for College/University Faculty!

First, welcome back to a new school year! It is always exciting to start the new year with new ideas and new students. I wanted to highlight two upcoming events for your students and for you. First is the NCTM Regional Conference in Dallas October 10-12. 2012. Information can be found at http://www.wynjade.com/nctm12/dallas/ for registration and program. Registration is free for student NCTM members! This is a great opportunity for our students who plan to teach mathematics.

Next is the Regional T^3 Conference to be held in Waco at University High School October 27, 2012. You can find additional information at http://www.baylor.edu/soe/index.php?id=86638. This is an important local opportunity for both faculty and students to see the latest in technology and its application for teaching and learning mathematics.

Finally, here are a few resources that I thought you might find useful as you begin the school year.

- *Math In Plain English: Literacy Strategies for the Mathematics Classroom* by Amy Benjamin from Eye on Education
- *Accessible Mathematics: 10 Instructional Shifts that Raise Student Achievement by Steven Leinwand from Heinemann*
- *5 Practices for Orchestrating Productive Mathematics Discussion* by Margaret S. Smith and Mary Kay Stein Corwin Press and NCTM
- *Motivation Matters and Interest Counts: Fostering Engagement in Mathematics* by James Middleton and Amanda Jansen NCTM
- Web resources Sponsored by **FCIT** (the Florida Center for Instructional Technology) and ETC (the Educational Technology Clearinghouse) http://etc.usf.edu/math/

Have a wonderful start of the semester!

-Trena L. Wilkerson, CTCTM VP-College/University

Something to Think About

1. A plate of iron 137 cm long, 64.3 cm wide, and 4.31 cm thick, weighs 277.54 kg. What is the specific gravity? What would the same mass weigh at specific gravity 7.47? at 7.79?

NOTE: To find the specific gravity of a body you may 1) divide the weight in grams by the bulk in cubic centimeters 2) weight in kilograms by the bulk in liters 3) weight in tons by the bulk in cubic meters.

2. A dry article was exposed to damp air, and absorbed 3 oz of water; it then weighed 7 lbs. What percent of the present weight is water?

Source: Wentworth, A.M., G.A. and Rev Thomas Hill, D.D.. L.LD, A Practical Arithmetic, Ginn & Heath Boston, 1881.

-William C. Luke, NCTM Representative

Save the Date!

CTCTM Annual Spring Conference

Saturday, February 23, 2013

8:30 am – 1:00 pm

University High School

Central Texas Council of Teachers of Mathematics
CTCTM Membership / Information Form

All information provided is confidential and not available to outside sources without the express written permission of the CTCTM Executive Council.

First Name_____ Last Name _____

Mailing Address _____

City_____ State _____ Zip _____

Name of School _____ Your position _____

Home Phone (_____)_____ Work Phone (_____)_____

Fax (_____)_____ Email _____

Are you a member of NCTM? (Circle)   yes   no   Are you a member of TCTM? (Circle)   yes   no

If yes, please give NCTM membership #_____

Please join or renew your membership to NCTM online, using the pull-down menu to indicate that you are a member of CTCTM. NCTM gives CTCTM a small portion ($3 - $5) of your membership, so this really helps us.

Please check one of the following:

School Type: _____ Public

_____ Nonpublic

Make check payable to CTCTM

Annual Dues: $10.00

Student Membership $5.00

Check those that best describe your level of involvement:

_____ Teacher   _____ P-2

_____ Student   _____ 3-5

_____ Counselor   _____ 6-8

_____ Principal   _____ 9-12

_____ Supervisor   _____ University

_____ Other _____

MAIL TO: Kathy Hutchison

Baylor University

One Bear Place #97328

Waco, TX 76798

Central Texas Council of Teachers of Mathematics (CTCTM) Professional Mathematics Organization Scholarship

This scholarship will award a one-year membership to the National Council of Teachers of Mathematics (NCTM), a one-year membership to the Texas Council of Teachers of Mathematics (TCTM), and a one-year membership to the Central Texas Council of Teachers of Mathematics (CTCTM).

Deadline: 1 February 2013   **Notification of award:** By February 23, 2013

Eligibility: Any student attending a Texas college or university and who plans on student teaching during 2011 in order to pursue teacher certification with a specialization or teaching field in mathematics or any teacher who has taught for fewer than two years and who is not a member of TCTM or NCTM. The applicant must either have permanent residence in one of the counties served by Region 12 in Central Texas or attend a college/university located in counties served by Region 12 in Central Texas.

Applicant Information-All information must be complete for consideration.

Name: _____
          Last   First   Middle

Address: _____
               Number & Street

_____   _____   _____
          City   State   Zip Code

Contact: (____) _____ (____) _____ _____
                Home Phone   Work Phone   Email Address

College/Campus Information

College/Campus Name_____ Graduation Year _____

Teaching Certification: _____ Years Taught: _____
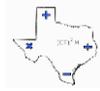
Campus/School District: _____

You must submit the following electronically by **1 February 2013** to sandra_cooper@baylor.edu, President of CTCTM:

1. Completed application.
2. An essay of 500-1500 words that describes how membership in a professional mathematics organization will help you as a teacher of mathematics.

Questions may also be sent to the same e-mail address. Information concerning this scholarship can also be found at www.ctctm.org. Click on Resources and Centers and then the Central Texas Council of Teachers of Mathematics link. An appointed CTCTM committee will review applications. Recipient's name will be submitted to the CTCTM Executive Board who will then notify the recipient and post name to CTCTM website.

CTCTM Spring Conference, February 23, 2013
Speaker Proposal Form

If you are interested in submitting a proposal please provide the following information:

I. Presenter Information
Name _____
Address _____
City/State _____
Zip _____ Phone _____
School Name _____
Email: _____

Please give the same information for additional speakers on a separate sheet.

Email to : debbie.perry@midwayisd.org

or Mail to: Debbie Perry
            Midway ISD
            13885 Woodway Drive
            Woodway, TX 76712

All proposals should be received by December 7, 2012.

II. Presentation Information
Title of Session _____
Grade Level(s) (Please check all that apply.)
PK-2 ___   3-5 ___   6-8 ___   9-12 ___   College ___

Description (Limit 25 words - may be done on separate sheet and attached)

Be sure to share with your colleagues!

"Something to Think About" Solutions

Problem # 1
(137 cm)(64.3cm)(4.31 cm) = 37967.2 cubic cm
277.54 kg
   a. 277.54/37967.2 = 0.00731 = 7.31 Specific Gravity
   b. X/37967.2 = .00747 = 283.615 kg
   c. X/37967.2 = .00779 = 295.764 kg

Problem # 2
 7 lbs = 112 ounces
112 ounces – 3 ounces = 109 ounces
3/112 = 2.39 percent of total weight is water

Has your membership information changed?

Please contact Kathy Hutchison to update your information.

Kathy_Hutchison@Baylor.edu

2012-2013 Officers

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