

Math E-Alert

From the Academic Office
Standards, Curriculum and Assessment

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Countdown to Testing

As the snow begins to melt and the days get warmer, it is beginning to start to feel a lot like spring. With that comes the testing season for students in Connecticut. This year, for Grades 3-8 testing can begin on March 17 and for Grade 11, April 27. During this time, teachers often feel the pressure of these assessments as much as students. They want to ensure that they have done all they can to enable their students to meet success. In some cases, this means disrupting curriculum in order to “cram for the test.”

In the February 2015 message from the National Council of Teachers of Mathematics President Diane Briars, four questions were posed for teachers to consider as they reflect on what they do to prepare students for spring assessments. The answers to these questions are less about “test prep” and more about implementing good teaching practices.

MATHEMATICS



First, it is valuable for teachers to analyze released Smarter Balanced items, as well as state standards and district curriculum documents. This is true for all teachers, regardless if their current group of students will be participating in the test. These documents provide insight into the progression of learning, as well as the types of tasks that elicit the thinking required to demonstrate mathematical proficiency. In analyzing the tasks in conjunction with the standards, teachers are able to interpret the mathematics needed to effectively demonstrate understanding of the standard.

Secondly, as the time crunch approaches and teachers fall behind in their pacing, their instinct is often to cover as much material as possible because it might be on the test. This has proven to be unproductive. A better approach to student learning is to value the depth of the concepts as opposed to teaching them all superficially. Prioritize what students should know prior to the test and adjust the pacing accordingly.

Next, many teachers use the weeks leading up to the assessment giving practice items in lieu of teaching new content. However, this has been shown to actually lower test scores. It is more effective to provide ongoing review and practice of concepts with appropriate and timely feedback. This enables students to retain, reflect and transfer knowledge. It is also important for students to become familiar with the expectations of the test, such as the types of questions, technology used and quality responses. Articulating clear expectations and providing students with the opportunity to reflect on their own learning are key strategies for student success.

Finally, the best test preparation strategy is good instruction. Consistently providing students with high-quality instruction and tasks that incorporate the effective mathematical teaching practices is the most effective way to prepare students to do well on high-stakes assessments. The goal is to go beyond rote learning of facts and procedures to learning with understanding, which enables students to apply their knowledge to new problems. To read Diane Briars’ entire message, please go to the NCTM Web site at nctm.org.

Opportunities for Students

Noetic Learning Math Contest: The goal of the contest is to increase students’ interest in mathematics and develop their problem-solving skills. This national problem-solving contest is in its 13th year.

Random Hacks of Kindness Jr, Inc.: This nonprofit agency provides elementary and middle school children (specifically Grades 4-8) the opportunity to come together as problem solvers and innovators to make the world a better place and will be hosting two events this spring. The first event is being held at [Trinity College in Hartford, CT](#) on Saturday, April 25, from 8:30 a.m.-4 p.m. For more information on this event, please visit eventbrite.com. The second event is being held at [Westover School, in Middlebury, CT](#), on Sunday, May 24, from 8:30 a.m.-4 p.m. For more information on this second event, go to eventbrite5/24.com.

Professional Opportunities

Knowles Science Teaching Foundation (KSTF) Teaching Fellows Program: This program is designed to support high school science and mathematics teachers from the onset of their careers. It provides stipends, funds for professional development, grants for teaching materials and opportunities for leadership and mentoring. Additionally, KSTF supports National Board candidates by offering financial assistance and participation in a one-year program that includes one-on-one and group meetings, as well as writing support.

3M TWIST: This program allows middle and high school math, science and technology teachers to spend six weeks during the summer working closely with a 3M host on an actual 3M research project. The objective is to provide active and challenging technical experiences for teachers in an industrial setting. For more information, please visit [3M](#).

Teaching Financial Literacy to Millennials: This workshop will include the challenges of teaching financial literacy to millennials; women and money; teaching personal finance online; personal finance share tables; banks in schools; finance career pathway programs; resources for the personal finance teacher; and technology and teaching personal finance. To register, please go to the CREC Web site at crec.org/events.

CSDE Professional Development: The CSDE continues to offer a variety of professional development opportunities both face to face and on demand to meet the needs of Connecticut educators. Please check out the latest offering on the CTCoreStandards.org Web site.

Open Intel Math Course: Intel Math is a mathematics course that is directly aligned with the Connecticut Core Standards (CCS) and is designed specifically for K-8 teachers of mathematics. Participants will better understand the interconnectivity of mathematics concepts spanning the base-ten number system through algebra, and thereby be better prepared to support student learning of the mathematics outlined in the CCS. Project to Increase Mastery of Mathematics and Science (PIMMS) is offering this Intel Math summer course to all K-8 teachers in any Connecticut school district. For more information or to apply, please go to wesleyan.edu/.

Mobile Computer Science Principles (CSP) Training: Mobile CSP provides a complete Advance Placement (AP)-level course that gets students engaged in learning computer science by building apps for mobile devices. For more information about this professional development opportunity, please visit <http://mobile-csp.org>.

The Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST): This award recognizes those teachers who develop and implement a high-quality instructional program that is informed by content knowledge and enhances student learning. Nominations for the 2015 awards, which recognize teachers at the secondary level (7-12), is now open. The applications are due May 1, 2015. For more information, please visit paemst.org.

Video Resources

New Videos From the Council of the Great City Schools: The three-minute video, and two shorter subject specific videos, help explain why the Common Core State Standards (CCSS) are important for the future. These videos are also available in Spanish.

The CCSS and Equity: The Alliance for Excellent Education (Alliance) recently released their first full-length conversations as part of their new Common Core and Equity Digital Monograph Series. This series of web-based videos highlight the successes, struggles and future plans of states, districts and schools leading the way implementing the CCSS, with a particular focus on struggling middle and high school students. The series also features video segments focused specifically on professional development issues and the role professional learning communities have played in each district's implementation of the Common Core.

The Teaching Channel: Chrystyna Mursky included a write-up titled "Formative Assessment Practices to Support Student Learning," which includes links to four videos featuring teachers demonstrating each attribute in the process. Two videos include two Connecticut teachers who we selected to be featured in the Digital Library Modules. For further information and to view these four videos, please go to the teachingchannel.org.

Stay Up to Date

The Math E-Alert is a great way to stay up to day on the latest math information. The E-Alert will now be posted to the CTCoreStandards.org mathematics page around the 15th of every other month. If you still wish to receive the Math E-Alert electronically, please contact Jennifer Michalek at jennifer.michalek@ct.gov to have your name added to the distribution list.

Do not respond to this e-mail. This alert is provided for your information only. Please contact charlene.tate.nichols@ct.gov or jennifer.michalek@ct.gov with questions.

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