Connecticut State Department of Education



Math E-Alert

From the Academic Office

Bureau of Curriculum, Instruction and Assessment

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Believing All Students Can Achieve

MATHEMATICS

π± %≥ ∞× As another school year comes to a close, it is a great time to reflect on the year. It is important to celebrate your successes and think about the challenges you endured in order to make adjustments for next year. One challenge that seems to be a recurring theme among Connecticut educators is ensuring the achievement of all students with the adoption of more rigorous standards. As schools continue to make the shifts required of the Connecticut Core Standards (CCS), it is now more important than ever to promote a sense of Academic Optimism within the school community. A school with high Academic Optimism believes that faculty can make a difference, students can learn and academic performance can be achieved. (Hoy et al., 2006)

In order to accomplish this goal, teachers and students must believe in growth mindset. Growth mindset is the understanding that talents and abilities can be developed through effort, good teaching and persistence. (*OneDublin.org.* 2012-06-19) Growth mindset can be applied to all disciplines. Too often students say things such as, "I'm just not good at math!" These students believe their intelligence is "fixed" and they will never be able to improve. Research has proven that this is not the case. Rather, if students are able to recognize that they can develop their abilities through hard work and dedication, they will have greater motivation and success. The tricky part is getting students to believe this so they can reach their full potential.

Recently, Khan Academy has developed a lesson plan to help students build a growth mindset. This lesson includes activities, links to additional resources and posters. The goal of the lesson plan is to help students build growth mindsets and to realize they really can learn anything! Once students develop a growth mindset, they will be more willing to engage with the standards of math content and the standards of math practice in a more meaningful way that will ultimately lead to student success. This lesson plan can be accessed through this link lesson plan to build a growth mindset.

Math Activities for Students

Girls in Science Summer Camp: Wesleyan University will be hosting a science summer camp at the Green Street Teaching and Learning Center for girls in Grades 4, 5 and 6. Campers will meet college student mentors, learn about science careers, create scientific posters and share what they learn with family and friends at a Science Showcase. The program runs from August 3-7. For more information and to register, visit http://www.wesleyan.edu.

Summer Math Challenge: The Summer Math Challenge is a **FREE** math skills maintenance program based on grade-level standards that help prepare students for college and careers. The program is targeted to students who have just completed Grades 2-6 and is designed to help kids retain math skills learned during the previous school year. For more information, visit https://www.quantiles.com.

CSDE Staffing Updates

After over a decade with the Academic Office, Charlene Tate Nichols has joined the Talent Office. Her new assignment is in the Bureau of Educator Standards and Certification. In this role she will work with institutes of higher education and their teacher preparation programs. Her expertise in mathematics will serve to ensure that our new teachers from elementary to high school have the skills needed to provide a quality mathematical education for our students. Although she is in a new position, rest assured that she remains "your ally in doing the business of the children."

Professional Opportunities

Knowles Science Teaching Foundation (KSTF) <u>Teaching Fellows Program</u>: 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. The application period for 2016 Teaching Fellowships is April 13–November 1, 2015

Mobile Computer Science Principles (CSP) Online 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.

<u>Geogebra Conference:</u> Hosted at Southern Connecticut State University, this conference will consist of several sessions with content suited to classroom teachers, university faculty and others who may have an interest in GeoGebra. Topics will include algebra, geometry, statistics, probability and calculus, and sessions will be geared to all levels, from introductory to expert.

Code.org: Become a <u>Code.org</u> K-5 Affiliate by attending a two-day, expense-paid workshop in Chicago, Illinois (July 17-19). <u>Code.org</u> will prepare you to deliver your own one-day, in-person workshops to local educators interested in teaching the <u>Code.org</u> K-5 curriculum. Apply now at http://bit.ly/1Bu5Bhk.

T³ TM Summer Workshops

Getting Started with the TI-Nspire™ Navigator™ System in Secondary Mathematics: Designed for educators who are just beginning to use the TI-Nspire Navigator System. This workshop introduces the system through dynamic pre-made lessons for middle grades and high school mathematics classrooms.

<u>Implementing Common Core State Standards for Mathematics with the TI-84 Plus Family:</u> Designed to give middle grades and high school educators strategies to excite and engage students. This workshop models rich tasks using indepth discussions about task analysis, questioning strategies and technology skills to enhance student learning.

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.

Online Professional Learning Modules: The CSDE, in partnership with Public Consulting Group (PCG), is offering free online learning modules to support the implementation of CCS English Language Arts and Mathematics standards. Available on Pepper, PCG's interactive and collaborative professional learning platform, these modules are self-paced, collaborative and engaging. Math module I is a focus on the practice standards and module 2 is on the content standards.

Algebra 2 and Geometry Model Curricula:: In-depth training on the Geometry Model Curriculum will take place from August 3-6 at Gateway Community College and from August 10-13 at Central Connecticut State University. The training on the Algebra 2 Model Curriculum will be from July 27-30 at Gateway Community College and from August 3-6 at Central Connecticut State University. Each four-day session will provide three hours of training on each unit of the model curriculum. All sessions will run from 9 a.m. to 4 p.m.

<u>Summer Teacher Training for Computer Science:</u> Trainings for the Code.org K-5 Curriculum and StarLogo will be offered at all of the RESCs this summer. The Code.org full-day workshops will cover courses I-3 and offer supplies needed to teach the courses. Courses blend online, self-guided and self-paced tutorials with "unplugged" classroom activities that require no computer. StarLogo training is a fun, hands-on half-day workshop for middle school teachers interested in learning how to program 3D games and/or science simulation models using StarLogo Nova, a free online

Stay Up to Date

The Math E-Alert is a great way to stay up to date 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.

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