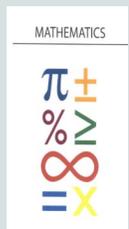


Math E-Alert

From the Academic Office
Standards, Curriculum, and Assessment

Date: March, 2016

Progressions: Improving Curriculum and Instruction



The Common Core State Standards in mathematics were built on progressions: narrative documents describing the progression of a topic across a number of grade levels, informed both by research on children's cognitive development and by the logical structure of mathematics. Once the progressions were identified they were then broken down into grade level standards. The progressions can explain why standards are sequenced the way they are, point out cognitive difficulties, pedagogical solutions, and give more detail on particularly knotty areas of the mathematics. It is a result of the progressions that the standards have coherence both within and across grade levels.

Since the adoption of the Connecticut Core Standards in 2010, most districts have been through a curriculum revision process in order to align to the new standards. However, as we begin to get more information about student success with the standards from the Smarter Balanced Assessment and the formative assessment process we know that students are still struggling.

Many times, students struggle with grade-level content because they are missing prerequisite skills and knowledge from earlier grades. Recently, Student Achievement Partners released an interactive [Coherence Map](#) that shows the connections between Common Core State Standards for Mathematics. The purpose of this tool is to help teachers and curriculum specialists understand how the standards are connected to other standards within and across grades. If students are having trouble mastering a particular standard, use the [Coherence Map](#) to see how that standard is connected. This understanding can help identify gaps in curriculum or instruction that need to be addressed.

As the foundation of the standards, it is clear that the progressions would be useful in organizing curriculum, teacher preparation and professional development. Copies of the progressions documents are available [here](#).

Opportunities for Teachers

The Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST):

This is the highest honor bestowed by the United States government, specifically for K-12 mathematics and science (including computer science) teaching. This award recognizes those teachers who develop and implement a high-quality instructional program that is informed by content knowledge and enhances student learning. Awardees serve as models for their colleagues, inspiration to their communities, and leaders in the improvement of mathematics and science (including computer science) education. Nominations for the 2016 awards, which recognize teachers at the elementary-level, Grades K-6 opened in the fall and the applications are due in the spring of 2016. For more information please visit www.paemst.org.

Rosenthal Prize for Innovation in Math Teaching:

The annual Rosenthal Prize for Innovation in Math Teaching is designed to recognize and promote hands-on math teaching in the upper-elementary and middle-school classrooms. Each year, the winning teacher is awarded a cash prize of \$25,000, and the winning activity is shared with interested teachers across the country. The application window for the 2016 Rosenthal Prize will begin in the spring of 2016. For more information visit: <http://in.momath.org/rosenthalprize/>.

Review the High School Draft of the K-12 Computer Science Framework : The goal of the K-12 CS Framework is to describe a foundation for what all students need to know and be able to do in computer science, from kindergarten through Grade 12. The framework will provide guidance to states and districts who want to design standards, curriculum, assessments, or teacher preparation programs. The entire K-12 draft will be available for the second review period, March 14 to April 1, 2016. For more information, visit <http://k12cs.org/review/>.

Professional Development Opportunities

Using the Digital Library to Support Teaching and Learning: *Back by popular demand.* The Smarter Balanced Digital Library supports educators and students through four attributes of the formative assessment process: (1) Clarify Intended Learning; (2) Elicit Evidence; (3) Interpret Evidence; and (4) Act of Evidence. Participants will have opportunities to investigate the professional learning and instructional resources and select those that are aligned with their upcoming curriculum and instructional plans. For dates and registration information please see the flyer [here](#).

Online Learning Modules: Self-paced online learning modules are currently available to Connecticut educators. The Mathematics modules include Focus on Practice Standards (Module 1) and Focus on Content Standards (Module 2). Facilitated online courses focusing on designing powerful instructional units aligned to the Connecticut Core Standards for Math will be launching soon. For more information or to register for these online opportunities, please visit: <http://surveys.pcgus.com/s3/CT-Links>.

Meeting the Needs of All Students: A Webinar Series: This series is designed for all Connecticut educators and will focus on meeting the needs of all students. Leading experts in a variety of Connecticut Core Standards topics will share strategies and resources to support making learning accessible to all students. Specific attention will be given to the English Learner and Special Education populations. To register for webinar sessions, please visit <https://registration.pcgeducation.com/> →

Mobile CSP: The Mobile Computer Science Principles (CSP) project is accepting applications for its 2016-17 professional development course. This consists of a 4-week summer course that can be taken either online or in a hybrid format, followed by professional development support throughout the school year. The Mobile CSP course takes a mobile approach to computer science. Students learn the principles of computer science through projects focused on building socially useful mobile apps using App Inventor -- apps that have meaning to them, their school or community.

Teaching Financial Literacy: The Formula for Financial Success: This conference offers participants a broad range of workshops that will cover banking, credit, debt, budgeting, investing, and technology, as well as how to incorporate these topics into the classroom. The conference will be held on April 8, 2016, from 8:30 a.m. —3:00 p.m. at the Crowne Plaza, Southbury. To register: <http://www.crec.org/communityed/events.php>

Texas Instruments 2016 T3 Connecticut Professional Development Summit: Participants can choose from eight terrific Texas Instrument (TI) professional development sessions two days, Wednesday, June 22, 2016 and Thursday, June 23, 2016. The summit will run from 8:00 am to 3:00 pm each day. Participants who attend at least one session will receive a free gift from TI. Register beginning March 31, 2016 at <http://education.ti.com>.

Opportunities for Students

Math Video Challenge: The Math Video Challenge empowers students to take their math and problem-solving skills to the next level with a creative video project. Students work together in teams of four to create a video that explains the solution to a MATHCOUNTS handbook problem and demonstrates a real-world application of the mathematics concept explored in the problem. Combining art, writing, math, acting and technology, this program makes learning math interactive and fun for *all* students. For more information visit the [MATH-COUNTS Website](#).

Stay Up to Date

The Math E-Alert is a great way to stay up-to-date on the latest math information. 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 jennifer.michalek@ct.gov with questions.

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