

California Online Mathematics Education Times (COMET)

Vol. 15, No. 5 - 4 August 2014

Editor: Carol Fry Bohlin - carolb@csufresno.edu

COMET Archives (2000-2014): <http://comet.cmpso.org>

California Mathematics Project: <http://www.cmpso.org>

California Online Mathematics Education Times (COMET) is an electronic news bulletin for educational leaders that provides STEM-related news, as well as information about professional events and opportunities, current educational issues, and online resources.

.....

Issue Overview (4 August 2014):

- (1) Keynote Speakers Announced for the California STEM Symposium
 - (1a) 2015 California STEM Summit Dates and Location Announced
 - (2) Models for Acceleration to Higher Mathematics in Common Core Classrooms
 - (3) Facilitator Training Will be Held Next Month in Hayward for the CCSS-M Professional Learning Module
 - (4) Issues Regarding Supplementary and Subject Matter Authorizations to be Discussed at Next CTC Meeting
 - (5) California Science Framework Guidelines are Approved and Twenty Committee Members are Appointed at State Board of Education Meeting
 - (5a) S.D. Bechtel, Jr. Foundation Funds Statewide NGSS Early Implementation Pilot
 - (6) State Superintendent of Public Instruction Torlakson Invites Public Comment on NGSS Implementation Plan for California
 - (7) Local Control and Accountability Plan (LCAP) Regulations - Statewide Organizations Urge State Board of Education to Explicitly Mention Science in Priority 2 Language
 - (7a) PTA Videos and Documents on LCFF and LCAP in English and Spanish
 - (7b) LCAP Watch (LCAP Repository and Resources)
 - (8) Commission on Teacher Credentialing to Consider Eliminating Specialized Science Teaching Credentials
 - (9) State Finalists are Named for the 2014 Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST)
-

ARTICLES & ANNOUNCEMENTS (CALIFORNIA FOCUS)

(1) Keynote Speakers Announced for the California STEM Symposium

URL: <http://cdefoundation.org/stemsymposium/>

"Bill Nye: The Science Guy" is one of the well-known speakers who will provide a keynote address at the 2014 California STEM Symposium, which will be held on September 21-23 at the San Diego Convention Center. Addition keynote speakers include Jamie Hyneman (*MythBusters*), Mae Jemison (first African American woman in space), Alex Kajitani ("The Rappin' Mathematician"), and Hadi Partovi (co-founder of Code.org).

.....

Related Announcement

(a) 2015 California STEM Summit Dates and Location Announced

Source: Chris Roe, CEO, California STEM Learning Network

The 2015 California STEM Summit will be held on March 16-17 in Los Angeles at the Westin Bonaventure Hotel. The Summit theme, speakers, and a preliminary agenda will be provided on www.cslnet.org/ at a later date.

(2) Models for Acceleration to Higher Mathematics in Common Core Classrooms

URL (SBE Agenda): www.cde.ca.gov/be/ag/ag/yr14/agenda201407.asp

URL (Slides): www.cde.ca.gov/be/ag/ag/yr14/documents/jul14item13slides.pdf

URL (Math Framework): www.cde.ca.gov/ci/ma/cf/draft2mathfwchapters.asp

Tom Adams, Executive Director of the California Department of Education's Instructional Quality Commission (IQC) addressed the topic of mathematics acceleration in a presentation to the State Board of Education at the Board's July 10 meeting. Adams noted that most students will be taking Algebra I or Math I in 9th grade under the Common Core, but there will be some who need acceleration, so flexibility is important. "If you're going to accelerate, that doesn't mean you're going to skip topics," Adams cautioned. "You cannot omit critical topics and concepts... But one thing that is not an option for students who need acceleration is to slow down instruction or to restrict access to accelerated sequences, because if you do, students may actually go down in their performance."

Adams shared slides showing several models for mathematics acceleration in middle school and in high school. He then introduced representatives from the following schools districts, all of whom gave presentations on California Common Core State Standards for Mathematics implementation efforts: Anaheim Union High School District, Davis Joint Unified School District, Long Beach Unified School District, and Shasta County Office of Education. Slides for all presentations are available at www.cde.ca.gov/be/ag/ag/yr14/documents/jul14item13slides.pdf COMET readers may find the descriptions of the implementation models useful. This agenda item (#13) begins close to time marker 5:06 in the video located at http://cde-ca.granicus.com/MediaPlayer.php?view_id=2&clip_id=162

(3) Facilitator Training Will be Held Next Month in Hayward for the CCSS-M Professional Learning Module

Source: Kyndall Brown, Executive Director, California Mathematics Project

URL: <http://plm.cmpso.org/>

In 2012, the California Mathematics Project (CMP), in collaboration with the California Department of Education (CDE), California Association of Mathematics Teacher Educators (CAMTE), the Curriculum and Instruction Steering Committee (CISC), and the California Mathematics Council (CMC), developed the 6-unit Professional Learning Module (PLM) for the K-12 Standards for Mathematical Practice that is now available on the California

Department of Education's Brokers of Expertise website:

www.myboe.org/portal/default/Content/Viewer/Content?action=2&scId=306591&sciId=10395

CMP held a successful 2-day facilitator training for this module during January in Southern California and has scheduled another facilitator training for September 16-17 in Hayward, CA. This workshop will provide a detailed overview of how potential leaders and professional development providers can facilitate a session or series of sessions using this PLM. Participants will closely examine the module, the instructional guide for facilitators, and materials available for use with the module.

For more information, please visit <http://plm.cmpso.org/>

(4) Issues Regarding Supplementary and Subject Matter Authorizations to be Discussed at Next CTC Meeting

Contact: California Commission on Teacher Credentialing (CTC)

URL (Agenda): www.ctc.ca.gov/commission/agendas/2014-08/2014-08-agenda.html

URL: www.ctc.ca.gov/commission/agendas/2014-08/2014-08-5B.pdf

The agenda for the August 14 meeting of the California Commission on Teacher Credentialing (CTC) includes Item 5B: "Policy Issues Pertaining to Supplementary and Subject Matter Authorizations Added to General Education Teaching Credentials." Two key policy issues will be discussed: the required coursework for each authorization and the lack of a required subject-specific pedagogy course for both authorizations.

Current education law requires that anyone pursuing an initial or additional Single Subject Teaching Credential must take a related subject-specific pedagogy course. For example, the holder of a Multiple Subject credential is required to take subject-specific pedagogy courses in both science and mathematics in order to add a Foundational-Level credential in each content area (FLM and FLGS) to his or her Multiple Subject credential. However, educators who wish to add a new instructional content area through a Supplementary or Subject Matter Authorization are not required to take a related pedagogy course.

In addition, while both Supplementary Authorizations (SA) and Subject Matter Authorizations (SMA) allow instruction through 9th-grade level coursework, the SA requires 10 semester units of upper division content-area coursework or 20 units of either lower division or a combination of lower and upper division coursework, while the SMA requires 32 semester units of content-area coursework. (In the case of mathematics, the SA does not require coursework in (a) probability or statistics or (b) advanced algebra, while the SMA requires both.)

During the presentation of this agenda item, CTC's Roxann Purdue will provide "an overview of Supplementary and Subject Matter Authorizations in order to provide context for a discussion of key policy issues." The agenda item includes the following policy questions that will be "presented for the Commission's consideration and potential action:

1. Should all teachers who add an authorization to teach in a new content area be required to complete subject-specific pedagogy preparation for that new content area?

2. Does the Commission wish to specify and/or revise the range of content that should be covered in the required coursework for the Supplementary and Subject Matter Authorizations in order to ensure consistency between the two types of authorizations and alignment with the state-adopted content standards?"

For more details about this agenda item, please visit
www.ctc.ca.gov/commission/agendas/2014-08/2014-08-5B.pdf

(5) California Science Framework Guidelines are Approved and Twenty Committee Members are Appointed at State Board of Education Meeting

URL (Agenda): www.cde.ca.gov/be/ag/ag/yr14/agenda201407.asp

At its meeting on July 10, the State Board of Education (SBE) approved the appointment of 20 individuals recommended by the Instructional Quality Commission (IQC) for service on the Curriculum Framework and Evaluation Criteria Committee (CFCC) for the *Science Framework for California Public Schools, 2016 Revision*. Robert Sherriff and Helen Quinn were appointed co-chairs of the Science CFCC, as recommended by the IQC. Science Guidelines for the framework revision (available online at www.cde.ca.gov/ci/sc/cf/) were also approved. (For more information, download Item 14 from www.cde.ca.gov/be/ag/ag/yr14/agenda201407.asp)

Robert Foster, Chair of the Science Subject Matter Committee of the IQC and a current middle school teacher, shared that the IQC reviewed 172 applications before deciding on the 20 individuals who were presented today for appointment to the *Science Framework* committee. Information on the members selected is available at www.cde.ca.gov/be/ag/ag/yr14/documents/jul14item14a1.pdf

.....

Related News

(a) S.D. Bechtel, Jr. Foundation Funds Statewide NGSS Early Implementation Pilot

URL: www.wested.org/the-california-k-8-ngss-early-implementation-initiative-launches/

State Board of Education member Trish Williams shared that 8 districts and 2 charter management organizations have been selected to participate in the California K-8 NGSS Early Implementation Initiative, a program with generous funding from the S.D. Bechtel, Jr. Foundation and coordinated by Kathy DiRanna, Statewide Director of WestEd's K-12 Alliance.

Initiative information on WestEd's website (link above) includes the following: "The [selected Local Education Agencies] will engage with the K-12 Alliance in the Initiative over a four-year period to collaboratively develop and participate in leadership training for teachers and administrators, and in teacher professional development in content and pedagogy to meet the conceptual shifts required by NGSS."

Regarding the effort, *The Vista Press* quotes DiRanna as saying that "we will not only be influencing what California does but what is done nationally" (<http://thevistapress.com/vista-picked-to-try-out-new-science-teaching-standards/>).

(6) State Superintendent of Public Instruction Torlakson Invites Public Comment on NGSS Implementation Plan for California

URL (Draft plan):

www.cde.ca.gov/pd/ca/sc/documents/scienceimplementationplan072414draft.pdf

Last Monday (July 28), State Superintendent of Public Instruction Tom Torlakson issued a call for public comment on the first draft of the Next Generation Science Standards (NGSS) Systems Implementation Plan for California. In a letter to county office, district office, and school site administrators, Torlakson wrote, "By utilizing this plan, the [California Department of Education, local educational agencies], support providers, and all stakeholders will have the potential to transform science education in California to create a different way of thinking about teaching and learning science.

This draft may be downloaded from www.cde.ca.gov/pd/ca/sc/ngssstandards.asp (direct download link provided above). Comments and suggestions for improvement must be submitted to ngss@cde.ca.gov by 5 p.m. on August 25.

A prepublication version of the NGSS for California Public Schools, K-12 (NGSS CA) is available at www.cde.ca.gov/pd/ca/sc/ngssstandards.asp

(7) Local Control and Accountability Plan (LCAP) Regulations - Statewide Organizations Urge State Board of Education to Explicitly Mention Science in Priority 2 Language

URL (LCAP FAQ): www.cde.ca.gov/fg/aa/lc/lcfaq.asp#FC

URL (video): http://cde-ca.granicus.com/MediaPlayer.php?view_id=2&clip_id=162

The July 10 meeting of the State Board of Education (SBE) opened with Agenda Item 11, "Local Control Funding Formula Spending Requirements (LCFF) and Local Control and Accountability Plan (LCAP) – Approve Commencement of a 15-Day Public Comment Period for Proposed Amendments to *California Code of Regulations*, Title 5, Sections 15494–15498."

Over 100 parents, educators, school board members, organization representatives, and students addressed the SBE for over 2.5 hours, expressing their views about the regulations, LCAP language, and district implementation efforts to date. While concerns and cautions were shared, many expressed excitement and optimism about the process.

Students spoke passionately about having their voices heard in the process of determining education plans and financial priorities in their districts. Representatives of parent groups such as PIQE (Parent Institute for Quality Education) emphasized the importance of "transparency and accountability that is real," not just perfunctory. Many spoke of the increased community involvement in education that has resulted from the LCFF and developing the LCAPs. Districts are thinking strategically to address the question, "What can we do that is best for all students?"

Jessica Sawko, Executive Director of the California Science Teachers Association (CSTA), stated that districts should plan now for the significant instructional shifts that the Next Generation Science Standards (NGSS) will necessitate. She mentioned a new PTA resource

that clearly indicates that all standards are included in Priority 2 (Implementation of State Standards). She referred to CSTA's letter recommending language to explicitly include NGSS in the LCAP.

In a letter to CSTA members, Sawko wrote, "A quick review of the LCAPs submitted for approval by county offices of education reveals that many districts approached addressing priority #2 as only the implementation of English and Mathematics Common Core Standards. Missing or lacking from many plans is support for the recently adopted Next Generation Science Standards (NGSS) for California.

"To address this issue and to help insure that students will receive access to a broad curriculum that includes science, CSTA proposed a revision of the LCAP template language describing state Priority #2 as follows:

"Implementation of State Standards: implementation of all academic content and performance standards adopted by the state board, including common core state standards (CCSS), next generation science standards (NGSS), English language development (ELD) standards (ELD), career technical education standards (CTE), history-social science, visual and performing arts, health education, world language, model school library, and physical education standards, for all pupils, including English learners. (Priority 2)"

Dave Butler, CEO of NextEd, represented the California STEM Learning Network (CSLNet) and brought a message similar to that expressed by CSTA. He stated, "CSLNet is a group of over 10 regional coalitions and networks organized to promote STEM education in school and out of school... We as a network are concerned that science education is largely missing from this process and believe that a lack of clarity in LCAP template language has led to a narrow interpretation of Priority 2, so therefore we're asking that the Board clarify the language as follows:

"Implementation of State Standards: implementation of academic content and performance standards adopted by the state board *for all subjects, including the Common Core State Standards (CCSS), English Language Development (ELD) standards, and Next Generation Science Standards (NGSS), for all pupils, including English learners.*"

The SBE then approved a 15-day comment period for proposed amendments to the regulations.

(Visit www.cde.ca.gov/fg/aa/lc/lcffoverview.asp for an overview of the LCFF.)

.....

Related Information:

(a) PTA Videos and Documents on LCFF and LCAP in English and Spanish

Source: California State PTA

URL: www.capta.org/sections/programs/lcff-lcap.cfm

URL (Newsletter: LCFF and LCAP Focus Issue): http://downloads.capta.org/edu/e-school-finance/PTAinCA_Special_LCFF_Edition_2014.pdf

URL (Quick Guides for the 8 LCAP Priority Areas): http://downloads.capta.org/edu/e-school-finance/LCAPQuickGuides_CompletePacket.pdf

(b) LCAP Watch (LCAP Repository and Resources)

Source: EdTrust West

URL (Plans): <http://lcapwatch.org/>

URL (About): <http://lcapwatch.org/about-lcap-watch/>

URL (Resources): <http://lcapwatch.org/resources/>

(8) Commission on Teacher Credentialing to Consider Eliminating Specialized Science Teaching Credentials

Source: California Commission on Teacher Credentialing - 1 August 2014

URL: www.ctc.ca.gov/commission/agendas/2014-08/2014-08-agenda.html

At its meeting on August 14, the California Commission on Teacher Credentialing is expected to take action on a proposal to "eliminate Specialized Science credentials once the transition to the [Next Generation Science Standards] is complete." Agenda Item 4C "presents the rationale for eliminating the option to earn a Specialized Science teaching credential in June 2015 after the last administration of the CSET: Specialized Science examination and for eliminating the Specialized Science teaching credential itself in June 2020, five years after candidates who passed the examination by June 30, 2015 could use the scores towards the credential. This rationale is based on the need to streamline the current nine distinct Single Subject Science teaching credential content areas in alignment with the [Next Generation Science Standards]."

"The April 2014 Commission meeting included an overview of the Next Generation Science Standards for California (NGSS) with a focus on the implications for teacher preparation (www.ctc.ca.gov/commission/agendas/2014-04/2014-04-4F.pdf). Given the Commission's responsibility is to ensure alignment of the content of subject matter and of teacher preparation with the state-adopted K-12 content standards, the Commission needs to consider the steps needed to streamline the single subject science credentials for alignment with the NGSS."

The text of the agenda item describes the four Single Subject science discipline authorizations developed by the Commission in 1997, the four Specialized Science content area authorizations developed in 2003, and the Foundational-Level General Science credential, which was developed in 2009 to help provide an increased number of teachers available to teach middle school science.

"The four Specialized Science content area authorizations...represent the smallest percentage of new science teachers (8% in 2012-13) and do not authorize teaching the integrated science courses adopted by the [State Board of Education] as the preferred model for grades 6 through 8 science instruction as aligned to the NGSS. Staff proposes that these four Specialized Science content areas be discontinued as an option for future science teacher candidates when the Science subject matter requirements are updated to align with the NGSS."

The proposed implementation timeline for NGSS in California is included as Appendix B. Appendix C provides an overview of the NGSS-alignment plans for teacher preparation. To view the entire agenda item (including appendices), visit <http://www.ctc.ca.gov/commission/agendas/2014-08/2014-08-4C.pdf>

(9) State Finalists are Named for the 2014 Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST)

Source: California Department of Education

URL: www.cde.ca.gov/nr/ne/yr14/yr14rel78.asp

On July 22, State Superintendent of Public Instruction Tom Torlakson nominated six outstanding elementary school teachers as California finalists for the 2014 Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST).

The California Department of Education partnered with the California Mathematics Council (cmc-math.org) and the California Science Teachers Association (www.cascience.org/csta/csta.asp) to recruit and select the nominees for the PAEMST program--the highest recognition in the nation for a mathematics or science teacher. The finalists were selected by a review panel of their peers who reviewed each candidate's content knowledge, pedagogical effectiveness, achievement results, and professional involvement.

The mathematics finalists are Andrew Kotko, a first grade teacher at Mather Heights Elementary in the Folsom-Cordova Unified School District in Sacramento County, and Sara Norris, a first grade teacher at the Mills College Children's School (School of Education lab school) in Alameda County.

The science finalists are Kirsten Johnson, a fifth grade teacher at Ninety-Third Street Elementary School in the Los Angeles Unified School District; Julie McGough, a first/second grade combination class teacher at Valley Oak Elementary in the Clovis Unified School District in Fresno County; Stefanie Pechan, a fifth grade teacher at Robert Down Elementary in the Pacific Grove Unified School District in Monterey County; and Erica Rood, a third grade teacher at CHIME Charter School in the Los Angeles Unified School District (charter authorizer).

"The subjects these outstanding educators teach so well are part of STEM education, an area that is critically important to the success of our students and our state," Supt. Torlakson said. "From these early grades, and with such engaged and inspired instructors, we will be able to encourage more students to pursue science, technology, engineering, and mathematics--the building blocks of learning."

The National Science Foundation administers PAEMST on behalf of The White House Office of Science and Technology Policy. PAEMST was enacted by Congress in 1983 and authorizes the President to bestow up to 108 awards annually. Winners of the award will be announced later this year. Each will receive \$10,000 from the National Science Foundation as well as an expense-paid trip to Washington, D.C., for the awards ceremony and related events.

PAEMST recognizes elementary and secondary teachers in alternate years. The opening date for applications for mathematics and science teachers (including computer science) working in grades 7-12 will be announced this fall on the PAEMST website: www.paemst.org

.....

COMET is supported by a grant from the California Mathematics Project.

.....
~ To **unsubscribe** from COMET, send the following message to
listserv@listserv.csufresno.edu: Unsubscribe COMET

~ To **subscribe** to COMET, send the following message to listserv@listserv.csufresno.edu:
Subscribe COMET [followed by your name]
Example: Subscribe COMET Albert Einstein

.....
Carol Fry Bohlin, Ph.D.
Professor and Special Assistant to the Provost for STEM Initiatives
Director, Mathematics and Science Teacher Initiative (MSTI)
Editor, *California Online Mathematics Education Times (COMET)*
California State University, Fresno
5005 N. Maple Ave. M/S ED 2
Fresno, CA 93740-8025

E-mail: carolb@csufresno.edu
COMET: <http://comet.cmpso.org/>