



## BUILDING CAPACITY FOR NEXT GENERATION SCIENCE IN CONNECTICUT

January 2015

From the Academic Office  
Standards, Curriculum and Assessment

### Science CMT and CAPT 2015

CMT and CAPT Science Assessments will be administered during March 2015. The CMT and CAPT Science will continue to assess Connecticut Expected Performances described in the 2004 Core Science Curriculum Framework and the 2010 Curriculum Standards and Assessment Expectations for Grades PK-8.

A representative sample of schools have been selected to participate in a first cycle of “piloting” new kinds of test items that integrate three “dimensions” of knowing science: its practices, core ideas and crosscutting concepts. Connecticut’s current assessment Expected Performances address each dimension separately. **Student performance on pilot items administered in “Supplemental Sessions” is not counted in student scores on the actual CMT or CAPT.** The purpose of Supplemental Sessions is to try out new items that may be used for various purposes in the future. Over the next several years, items will be piloted in both paper-and-pencil and online formats. Districts were recently notified if their schools have been selected to participate in piloting items during the 2015 state science assessment window. For selected schools, participation in the paper-and-pencil supplemental testing is required, while participation in the online supplemental testing is optional. Questions can be directed to Jeff Greig ([jeff.greig@ct.gov](mailto:jeff.greig@ct.gov)).

### Next Generation Science Stakeholder Engagement Committees

In summer 2014, all school districts, charter schools and magnet schools were invited to designate a representative to serve on the CSDE NGSS District Advisory Council (DAC). Sixty-three districts are currently represented on the Council. The DAC met in August and October 2014. Each meeting featured information about aspects of Next Gen Science, followed by individual and group surveys to elicit district perspectives on adoption readiness and challenges. To date, district reps have provided feedback on the comparability of NGSS to Connecticut’s current science standards; Connecticut educators’ involvement in NGSS development; district attitudes about standards in common with other states; and the benefits and drawbacks of making Connecticut changes to NGSS. The Council is open to any district that wishes to be represented, with a limit of one

representative per district. For district participation questions, contact Liz Buttner at [Elizabeth.buttner@ct.gov](mailto:Elizabeth.buttner@ct.gov).

The State Science Assessment Advisory Committee (SSAAC) consists of 45 members selected to represent different districts, grade levels and content areas. The committee met in July and October 2014 to begin to contemplate a new comprehensive science assessment system that reflects the vision of the NRC Science Framework. Participants have learned about key aspects of Next Gen Science, and are building upon this knowledge to envision a system of local classroom assessment tools as well as statewide summative assessments, as called for in the NRC Report, [Developing Assessments for the Next Generation Science Standards](#).

### State Board of Education to Learn about NGSS

The Connecticut State Board of Education is slated to discuss Next Generation Science Standards at its next meeting on February 4, 2015. This is the first of what will likely be several State Board meetings that will address NGSS. Several State Board members who serve on the Academic Standards and Assessment Committee have received NGSS briefings from SDE Science Consultants on 3 occasions. Minutes of these meetings are available at the following links:

- November 12, 2014 [[PDF](#)]
- May 21, 2014 [[PDF](#)]
- April 17, 2014 [[PDF](#)]

### Next Generation Science Resources from Achieve

Achieve publishes a monthly Next Generation Science newsletter highlighting recent developments and tools in the pipeline. The newsletters can be accessed at <http://www.nextgenscience.org/december-ngss-now-newsletter>. Recent newsletters from Achieve include information about resources such as:

- Newly-released *Classroom Sample Assessment Tasks* for middle and high school and their intended uses.
- Newly-released *Evidence Statements for High School*;
- Using the NGSS EQulP Rubric to examine instructional materials to determine if they embody the 3-Dimensional teaching and learning envisioned in the NRC Framework. January editions of NSTA journals include “EQulPped for Success”, an article by Achieve’s Molly Ewing describing the rubric and its uses.

To subscribe to Achieve’s monthly newsletter, go to <http://www.nextgenscience.org/newsletter-signup>

## CT Department of Education Partners with CT Science Center

CSDE and the CT Science Center are partnering to develop a system of Next Generation Science professional learning workshops, institutes and web-based blended learning modules. On November 24, 2014, science leaders from 60 school districts in Connecticut attended “A Leader’s Introduction to Next Generation Science”, a full-day workshop facilitated by NRC Framework contributor Brett Moulding and Nicole Paulsen. The workshop was billed as an “appetizer”, intended to raise district leaders’ awareness of the ambitious changes to science teaching and learning envisioned by the NRC Framework and NGSS.

Watch for Next Gen upgrades to the Science Center’s familiar Inquiry Institute series and a new Next Gen Curriculum Development Institute to be offered in partnership with the American Museum of Natural History. Watch for opportunities to participate in field tests of these curriculum and instruction institutes in June-July 2015!

The goal is to develop a “suite” of expert-facilitated professional learning experiences that will be accessible to educators statewide by the 2015-16 school year.

## CT Department of Education Partners with National Next Gen Science Experts

In January 2014, the Department awarded two Math Science Partnership (MSP) grants aimed at building capacity within the teacher preparation pipeline and in K-12 schools to promote Next Generation Science teaching and learning approaches. Both projects are developing web-based/in-person “blended” learning modules and curriculum mini-units that will be accessible to educators statewide as of the 2015-16 school year.

- The New Terrain Next Generation Science Teaching Project is coordinated by Sacred Heart University in Fairfield, CT, in partnership with NRC Framework contributors Brian Reiser of Northwestern University in Evanston, IL and Sarah Michaels of Clark University in Worcester, MA. Under the leadership of Drs. Reiser and Michaels, science education professors from eight Connecticut teacher preparation institutions – CCSU, ECSU, Quinnipiac, SCSU, Sacred Heart, UCONN, WCSU and University of New Haven – are collaborating with twenty-six K-12 educators from Bridgeport, Bristol, Cromwell, Danbury, Hamden, Hartford, Mansfield, North Haven, Norwich, Trumbull, Willimantic and Windham.
- The Connecticut Center for Advanced Technology, Inc. (CCAT) has partnered with CCSU, the University of Hartford, UConn and eleven Connecticut school districts to design a K-12 Next Gen Science Professional Learning Community that can ultimately be replicated in districts statewide through web-based, blended learning modules. Next-Gen Science CT (NGS-CT) learning modules will provide in-service science educators in CT with a strong common

understanding of science teaching and learning that represents the vision and instructional shifts called for in A Framework for K-12 Science Education and the Next Generation Science Standards.

## Teaching NGSS in Fourth Grade Is Topic of January 21 NSTA Webinar

On January 21, 2015 NSTA continues its series of webinars for K–5 teachers focused on teaching the *Next Generation Science Standards (NGSS)* in elementary school. Join presenters Carla Zembal-Saul, Mary Starr, and Kathy Renfrew as they review the general architecture of the *NGSS* and the specific expectations for fourth grade students. Then explore how to use the standards to plan curriculum and instruction.

The NGSS K-5 webinar series concludes on February 18, 2015, with a focus on Grade 5. All webinars are FREE and are archived at [http://learningcenter.nsta.org/products/symposia\\_seminars/NGSS/webseminar47.aspx](http://learningcenter.nsta.org/products/symposia_seminars/NGSS/webseminar47.aspx). [Find more information and/or register.](#)

## Presidential Awards Nominations Sought

The Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) are the highest honors bestowed by the United States government specifically for K-12 mathematics and science (including computer science) teaching. Nominations are now being accepted at [www.paemst.org](http://www.paemst.org) for exemplary science, mathematics and computer science teachers in Grades 7 to 12. Anyone may nominate a teacher, and teachers may also self-nominate. Eligible nominees must have completed 5 years of teaching in a public or private school. Additional eligibility requirements and information about the PAEMST Program and the application are available at [www.paemst.org](http://www.paemst.org).

The award recognizes classroom teachers who submit an application demonstrating how they develop and implement a high-quality instructional program that is informed by content knowledge and enhances student learning. The National Science Foundation administers PAEMST on behalf of The White House Office of Science and Technology Policy.