

Texas Education Agency – Science Update, CAST – Houston, November 10-13, 2010

Kenn Heydrick, Director of Science; Irene Pickhardt, Assistant Director of Science

TEA Sessions at CAST, Friday, November 12 – Brown Convention Center, Ballroom A

- 8:45-9:30 am Elementary School Session
- 10:15-11:00 am Middle School Session
- 3:15-4:00 pm High School Session
- 1:45-2:30 pm Dr. Carl Wieman, Nobel Prize-winning physicist

Science TEKS

- Implementation of new science TEKS in 2010-2011 school year
- More clarity and specificity in K-12
- Increased K-12 focus on science equipment
- Time recommendations and requirements for science investigations
 - Grades K-1: At least 80% of instructional time (“districts are encouraged to facilitate”)
 - Grades 2-3: At least 60% of instructional time (“districts are encouraged to facilitate”)
 - Grades 4-5: At least 50% of instructional time (“districts are encouraged to facilitate”)
 - Grades 6-12: Student-conducted laboratory/field investigations for at least 40% of the instructional time
- 3 types of investigations: descriptive, comparative, experimental

Professional Development Opportunities

- Summer/fall 2010 and spring 2011: K-12 science TEKS (1 day); 5-8 Academies (3 days); Biology EOC Success (3 days)
- Summer 2011: Chemistry EOC Success and Physics EOC Success
- Contact the science specialist at your ESC for registration information: <http://ritter.tea.state.tx.us/ESC/>

Proclamation 2012 (Science) Postponed

- Request for supplemental instructional materials that meet all of the new and expanded TEKS in Biology, Chemistry, Integrated Physics and Chemistry (IPC), and Physics
- Scheduled to be implemented in schools beginning with the 2011-2012 school year
- Information: <http://www.tea.state.tx.us/index2.aspx?id=2147487077>

Options for Science Graduation Credit

- The following CTE courses remain options for satisfying the fourth science credit requirement for the RHSP and DAP: Anatomy and Physiology, Medical Microbiology, Pathophysiology, Scientific Research and Design, Engineering Design and Problem Solving
- Other options for the 4th science credit also remain: Aquatic Science, Astronomy, Earth and Space Science, Environmental Systems, All AP and IB science courses
- Note: Principles of Technology remains an option for satisfying the physics requirement on the RHSP only.
- Minimum HS Program - Nothing in code prohibits IPC from being taken during any school year.

Amendments to Graduation Requirements – Recommended HS Program

Phase-out of IPC was removed. IPC must be completed prior to Chemistry and Physics. Biology, Chemistry, and Physics are required for all students. However, those students who completed IPC prior to 2010-2011 may satisfy science requirements in the manner established at the time the credit was earned. For example, IPC may have been taken after Chemistry or Physics, as long as it was not taken as the fourth or final science. More information:

<http://www.tea.state.tx.us/graduation.aspx> and

http://ritter.tea.state.tx.us/sboe/e_attachments/2010/january/full_board/thur_2_curriculum_requirements_a2.pdf

Educator Certification and Standards

- State Board for Educator Certification (SBEC) – Administrative Rules, Texas Administrative Code (TAC) – Consult Chapter 231 for assignments and certificates:
[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=19&pt=7&ch=231&rl=1](http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=19&pt=7&ch=231&rl=1)
- E-mail TEA Educator Certification and Standards: <http://www.tea.state.tx.us/index2.aspx?id=5333>
- Chat with TEA credentialing staff: <http://www.tea.state.tx.us/sbecchat.aspx>

Master Science Teacher (MST) Certification

- MST certification can be obtained for grades EC-4, 4-8, and 8-12.
- Online training will be available soon. A state stipend is available when a teacher teaches science, at the grade level for which he/she holds MST certification, on an identified high-need campus. The deadline for districts to apply for stipend grant is June 30, 2011. A FAQ document is available at <http://www.tea.state.tx.us/index3.aspx?id=5676>.

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

- The National Science Foundation, under the direction of the White House, approves the Texas candidates as finalists for the national Presidential Awards for Excellence in Math and Science Teaching (PAEMST) award. If chosen as a national winner, the state finalists will receive \$10,000 and an all-expense-paid trip for two to Washington D.C. for ceremonies that include recognition from the President of the United States at the Capital.
- Nominations (7-12) Due April 1, 2011; Applications (7-12) Due May 1, 2011; More information: <http://www.paemst.org>
- Official 2010 Texas Secondary Science PAEMST Recipient – Stef Paramoure
- 2011 Texas Elementary Science Finalists
 - Nancy Douglas, 5th grade teacher at Andrews Elementary School in Austin ISD
 - Martha McLeod, 5th grade teacher at Fulton 4-5 Learning Center in Aransas County ISD
 - Kent Page, 5th grade teacher at Carnahan Elementary School in Northside ISD

National Youth Science Camp (NYSC) 2011

- Applications to attend the 2011 NYSC are now available. Two graduating high school students will be selected to represent Texas at the all-expenses-paid honors program which will be held from June 30 - July 24, 2011.
- Applications are due by January 21, 2011. Apply now: <http://www.nysc.org/w/2011.html>

Project Share

- Project Share provides an elearning platform to support a community of practitioners dedicated to improving teaching and learning through an interactive and engaging environment. Information is available from your education service center. Project Share website: www.projectsharetexas.org/

Texas Education on iTunes U

- Press release at <http://www.tea.state.tx.us/itunesu/>
- Connect: <http://deimos.apple.com/WebObjects/Core.woa/Browsev2/tea.k12.texas.edu>

Texas Math and Science Diagnostic System (TMSDS)

2010-2011 version is based on new science TEKS: Grades 3–8, IPC, Biology, Chemistry, Physics. Three diagnostic tests available for each grade level/course; 30 questions each, English and Spanish. 5-question “mini-assessments” available for most student expectations. Provided at no cost to school districts and charter schools. Technical assistance provided by ESCs. Website: www.tmsds.org/

Updated TEA Science Webpage

- New resources and documents available, including TEA Texas Safety Standards and TEA Safety Laws and Rules
- Website: <http://www.tea.state.tx.us/index2.aspx?id=5483>

Science TAKS Results – Summary

- Need to reduce the achievement gap between genders
- Need to reduce the achievement gap among African American, Hispanic, and white students
- Need to commit to teach all the TEKS for each grade/course
- Assessment results: http://www.tea.state.tx.us/index3.aspx?id=3631&menu_id=793

STAAR Student Assessment Program

- STAAR includes the 12 end-of-course assessments and the new grade 3-8 assessments. The new program begins in the 2011-2012 school year. Students beginning high school as freshmen in 2011-2012 will be the first students who must meet the end-of-course testing requirements, in addition to meeting credit requirements, in order to earn a diploma.
- Tests will focus on “fewer, clearer, deeper” content. New assessments will address the “readiness standards” TEKS annually, with other eligible “supporting standards” TEKS being assessed across years.
- STAAR website with resources: <http://www.tea.state.tx.us/student.assessment/staar/>

Texas Children in Nature Conference, December 3-4

Information on the Texas Children in Nature Conference: www.texaschildreninnature.org

TEA Listserv Subscriptions: Join all agency listserv groups at: <http://miller.tea.state.tx.us/list/>

Contact Information – TEA Division of Curriculum – Main Phone Number (512) 463-9581

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TEA Mission: *We strive to provide leadership, guidance, and resources to help schools meet the educational needs of all students.*