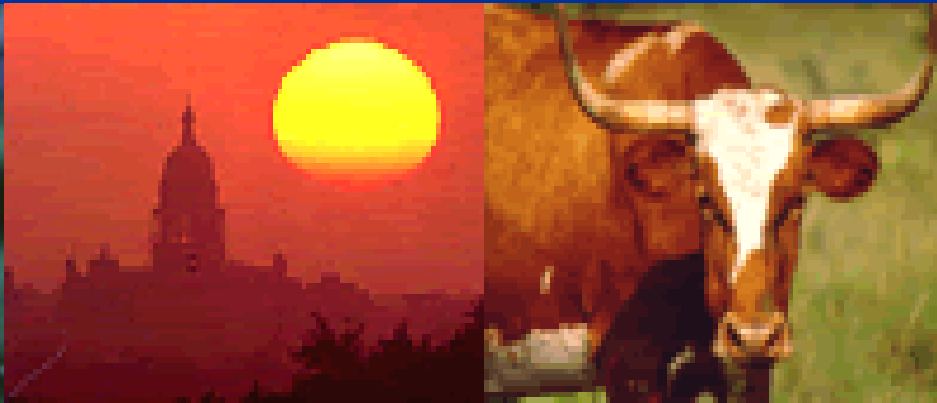




TEXAS EDUCATION AGENCY

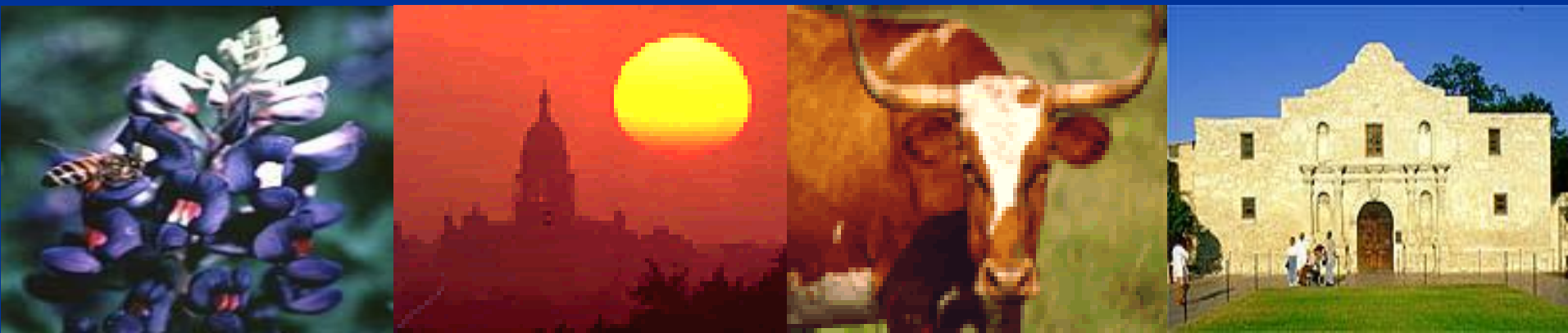
# Update of Science Education in Texas

*Kenn Heydrick*  
*Director of Science*

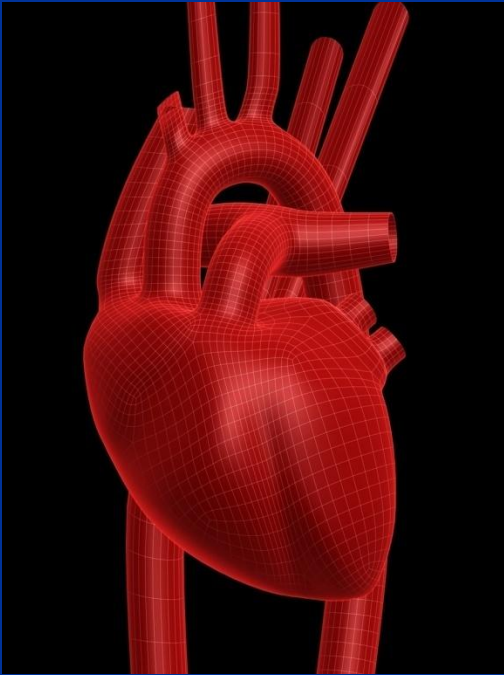


# Update of Science Education in Texas

1. Science TEKS Revisions
2. Graduation Plans
3. College Readiness Standards
4. Student Assessment Update
5. TMSDS
6. PAEMST
7. Goals for Science Education



# Science TEKS Revisions



# Science TEKS Revisions

- **State Board of Education (SBOE) members nominated educators to serve on review committees.**
- **SBOE oversees all aspects of the TEKS, including the revision process.**
- **The SBOE has approved a process for the review of TEKS (July 2008).**

# Science TEKS Committees

- **Spring 2008**
  - **K-8 Team: Since January, ongoing**
  - **9-12 Team: Since January, ongoing**
  - **Earth & Space Science: Since April, ongoing**
  - **Engineering: Since April, ongoing**
- **Summer and Fall 2008**
  - **K-12 Teams: September 10-12**
  - **K-12 Teams: October 30-November 1**

# Science TEKS Revision Process

## ■ Refinement

- Science review committee members continue work.
- Finalize recommendations of the revised Science TEKS for their grade level or subject.

## ■ K-12 Alignment

- A meeting with review committee members will ensure K-12 alignment of TEKS.

# Science TEKS Revision Process

- Informal Public Feedback
  - Draft Science TEKS posted in an online survey format. Solicit comments and suggestions.
- Expert Content Review
  - SBOE appointed 6 experts to review proposed Science TEKS.

# Proposed Science TEKS Revision Process

- Recommendation for 2009
  - **November** – Discussion of proposed Science TEKS by SBOE.
    - Wed., Nov. 19 agenda item
    - [www.tea.state.tx.us/sboe/](http://www.tea.state.tx.us/sboe/)



# Proposed Science TEKS Revision Process

- **Recommendation for 2009**
  - **January** – 1<sup>st</sup> Reading of proposed Science TEKS provided to SBOE.
  - **March** – 2<sup>nd</sup> Reading and Final Adoption of the proposed Science TEKS provided to SBOE.

# Proposed Science TEKS Implementation

- **Spring / Summer 2009 and Ongoing**
  - Professional development begins
- **Fall 2010**
  - Implementation of New Science TEKS
- **Fall 2011**
  - Implementation of New Online College Readiness Student Materials

# Science TEKS Implementation

- **Fall 2011 – Spring 2012**
  - **Districts Review and Select Science Instructional Materials from Proclamation 2012**
- **Fall 2012**
  - **New Science Instructional Materials in Schools**

# New TEKS Web Resource

All the latest information found



[www.tea.state.tx.us/teks/](http://www.tea.state.tx.us/teks/)

# Graduation Plans



# Support for 4x4 Graduation Plans

## Recommended High School Program (RHSP)

- Students must take:
  - 1 credit of biology,
  - 2 credits from IPC, chemistry, or physics (or PT 1),
  - 1 credit from approved lab-based courses
- **IPC is an option for schools until 2011-2012. For students who enter Grade 9 in 2012-13, IPC will no longer count as one of the four science credits.**

# Support for 4x4 Graduation Plans

## Distinguished Achievement Program (DAP)

- Students must take:
  - 1 credit of biology,
  - 1 credit from chemistry,
  - 1 credit from physics (no Principles of Technology I),
  - 1 credit from approved lab-based courses
- Advanced Measures focus on student performance at the college or professional level
  - Original research or project
  - Test data (AP, IB, PSAT)
  - College courses

# Science Requirements

(as of 2008-09)

- **Current 5<sup>th</sup> Graders (Class of 2016)**
  - **First class to not have IPC as an option on the RHSP**
- **Current 6<sup>th</sup> Graders (Class of 2015)**
  - **First class to have EOC graduation requirements**
- **Current High School Sophomores (Class of 2011)**
  - **First class graduating under required 4x4 Recommended HS Plan**



# Course Completion Trends

	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>
<b>Biology</b>	<b>330,625</b>	<b>331,054</b>	<b>337,443</b>
<b>Chemistry</b>	<b>228,259</b>	<b>239,663</b>	<b>252,997</b>
<b>Physics</b>	<b>83,784</b>	<b>87,604</b>	<b>93,363</b>
<b>IPC</b>	<b>254,022</b>	<b>256,784</b>	<b>258,234</b>
<b>Environmental</b>	<b>14,821</b>	<b>14,541</b>	<b>15,923</b>
<b>GMO</b>	<b>4,424</b>	<b>4,638</b>	<b>4,688</b>
<b>Anatomy &amp; Phy.</b>	<b>15,950</b>	<b>17,643</b>	<b>19,315</b>
<b>AP &amp; IB (all)</b>	<b>29,167</b>	<b>29,752</b>	<b>31,740</b>

# 2 New Science Options

- **Earth and Space Science**
  - *Will replace Geology, Meteorology, & Oceanography (GMO)*
- **Engineering**

*TEKS for these new courses will be available to teach in fall 2009. But, please understand that the new science adoption will not have instructional materials available until fall 2012.*



***Staffing science departments and having sufficient science lab rooms will be ongoing critical issues.***

***Also, we need to help the public and community understand the benefits of having students complete four years of science.***





# College Readiness Program

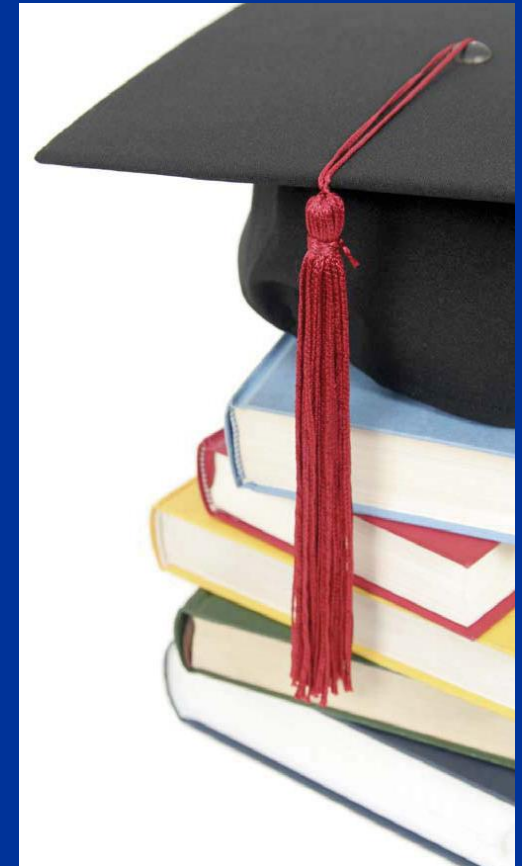
# College Readiness Standards



[www.thecb.state.tx.us/  
collegereadiness/CRS.pdf](http://www.thecb.state.tx.us/collegereadiness/CRS.pdf)

# College Readiness Program

- A Collaborative Project between the **Texas Education Agency** and the **Texas Higher Education Coordinating Board**
- Director is Dr. Joseph Kulhanek  
[Joseph.Kulhanek@tea.state.tx.us](mailto:Joseph.Kulhanek@tea.state.tx.us)



# CRS Timeline – 3 Phases

- **Phase I:** Teams of 10 in each core subject develop College Readiness Standards (CRS)
- **Phase II:** Gap Analysis by Vertical Teams – *Completed in October*
- **Phase III:** Develop instructional strategies and support materials

# College Readiness Program

- **Phase II: Vertical Teams**
  - Teams of 10 people in each core area, with 2 co-chairs.
  - Public Education (6) & Higher Education (4)
- **Phase II: Alignment of TEKS to CRS**
  - Science Gap Analysis – October 6-7
  - Used Draft Science TEKS and looked for alignment with CRS Science



# College Readiness Program

- **Phase III: Develop Instructional Strategies and Support Materials**
  - Science CRS Online Student Materials must be made available during the Fall Semester of 2011
- **Phase III: Educator Support Web Portal**
  - Provides Q&A and Updates
  - Instructional Strategies
  - Professional Development

# Student Assessment Update



# **2009 Assessments:** ***TAKS & End-of-Course Exams***

- |                  |  |
|------------------|--|
| <b>April 30</b>  | <b>Science TAKS, Grades 5, 8, 10, Exit Level</b>                             |
| <b>May 1</b>     | <b>LAT Science, Grades 5, 8, 10</b>  |
| <b>May 4-22</b>  | <b>Physics End-of-Course Exam Online Field Test Window</b>                   |
| <b>May 11-29</b> | <b>End-of-Course Exam Online Tests (optional);<br/>Biology and Chemistry</b> |

# End-of-Course (EOC) Exams

- High school TAKS will be slowly phased-out and replaced with EOC exams in:
  - **Biology**
  - **Chemistry**
  - **Physics**
- Freshman class of **2011-2012** is first group to have EOC as graduation requirement.
- Specific minimal and cumulative scores have been determined for high school graduation.

# EOC Assessments Implementation Plan

EOC Exam	Spring 2007	Spring 2008	Spring 2009	Spring 2010	Spring 2011	Spring 2012
Biology	Field Test	Operational	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒
Chemistry		Field Test	Operational	⇒ ⇒ ⇒	⇒ ⇒ ⇒	⇒ ⇒ ⇒
Physics			Field Test	Operational	⇒ ⇒ ⇒	⇒ ⇒ ⇒

# **SB 1031**

## **Release of TAKS Items**

- **Release TAKS tests every three years ⇒ 2009, 2012, 2015, ...**
- **Release all TAKS tests in summer 2009 that were administered during the 2008–2009 school year including exit level retests**

# **SB 1031**

## **Release of TAKS Items**

- **Release set of items from test bank in non-release years ⇒ 2010, 2011, 2013, 2014, 2016, 2017, ...**
- **TAKS released items would include about 3–5 items for every grade and subject**
- **First set of released items from test bank is now posted on TEA student assessment website at [http://www.tea.state.tx.us/student.assessment/resources/release/taks\\_items/index.html](http://www.tea.state.tx.us/student.assessment/resources/release/taks_items/index.html)**

# SB 1031

## Release of TAKS Items

Release Year		2008	2009 Mandated Release Year	2010	2011	2012 Mandated Release Year	2013	2014	2015 Mandated Release Year
TAKS	All Forms		✓			✓			✓
	Field Test Items*	✓		✓	✓		✓	✓	

\*The field-test items that will be released will be at least four years old and no longer eligible for inclusion on a test.



# SB 1031

## EOC Assessments

- To graduate, students on the Recommended & Distinguished HS Plans must attain a cumulative score of at least 210 per subject area.
- To graduate, students on the Minimum Plan must attain a cumulative score of at least 70 multiplied by the number of courses they take in which an EOC assessment exists. This varies by subject area from 210 for English to possibly as low as 70 for science.

# **SB 1031**

## **EOC Assessments**

- **Students must score at least 60 for the score to count towards their cumulative score.**
- **Students scoring below 60 must retake the assessment each time it is administered.**
- **Students scoring below 70 must receive accelerated instruction.**

# SB 1031

## EOC Assessments

- A student's score on an EOC assessment will be worth 15% of the student's final grade for that course
- A school district is not required to use the student's score on subsequent administrations to determine the student's final grade for that course
- A student is not required to retake a course as a condition of retaking an EOC assessment

# Implementation of EOC Assessments

## Algebra I

Administered in current form  
since spring 2005

## Geometry and Biology

Field tested in spring 2007  
Operational test in spring 2008

## Chemistry and U.S. History

Field test in spring 2008  
Operational test in spring 2009

## Physics and World Geography

Field test in spring 2009  
Operational test in spring 2010

## English I and Algebra II

Field test in spring 2010  
Operational test in spring 2011

## English II and World History

Field test in spring 2011  
Operational test in spring 2012

## English III

Field test in spring 2012  
Operational test in spring 2013

# EOC Assessment Reporting

- **Within 24 hours of testing**
  - **Confidential Student Report**
  - **Confidential List of Student Results**
- **Data file available in summer**
  - **Overall raw score**
  - **Performance by objective**

# Current EOC Assessments

- Online
- Three week testing window
- Untimed
- Districts may volunteer at the student, teacher, campus, or district level
- Must be enrolled in and completing the course to take the assessment
- Not grade specific
- Not required to be part of student's grade
- Not included in state or federal accountability
- No retests available

# High School TAKS ⇒ EOC

Plan for phase-out of HS TAKS and phase-in of EOC assessments

	2008–2009	2009–2010	2010–2011	2011–2012	2012–2013	2013–2014
Grade 9	TAKS	TAKS	TAKS	EOC	EOC	EOC
Grade 10	TAKS	TAKS	TAKS	TAKS	EOC	EOC
Grade 11	TAKS	TAKS	TAKS	TAKS	TAKS	EOC
Grade 12	TAKS*	TAKS*	TAKS*	TAKS*	TAKS*	TAKS*

\*Out-of-school testers and 12<sup>th</sup> grade re-testers

# TAKS vs. EOC

## SCIENCE SIMILARITIES

- Based on TEKS
- Untimed
- Calculator must be provided
- Mostly multiple-choice questions
- After first year, field-test questions will be embedded in live test



# TAKS vs. EOC

## SCIENCE DIFFERENCES

### Coverage of the Biology TEKS

- TAKS grade 10 covers about **35%** of Biology TEKS
- TAKS exit level covers about **42%** of Biology TEKS
- Biology EOC assessment covers **100%** of Biology TEKS

# TAKS vs. EOC

## SCIENCE DIFFERENCES

### Coverage of the Chemistry TEKS

- TAKS grade 10 covers **0%** of Chemistry TEKS; it includes chemistry skills from IPC (objective 4)
- TAKS exit level covers **0%** of Chemistry TEKS; it includes chemistry skills from IPC (objective 4)
- Chemistry EOC assessment covers **100%** of Chemistry TEKS

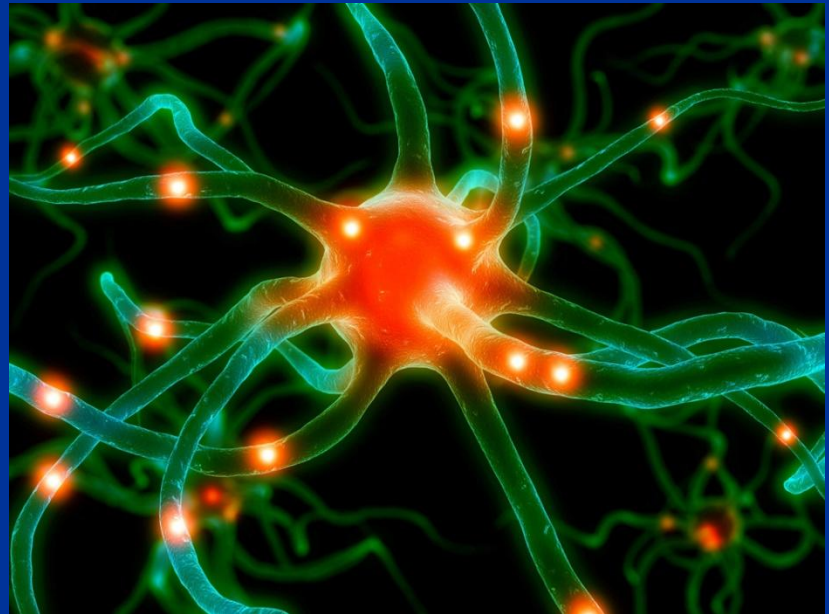
# TAKS vs. EOC

## SCIENCE DIFFERENCES

### Coverage of the Physics TEKS

- TAKS grade 10 covers **0%** of Physics TEKS;  
it includes physics skills from IPC (objective 5)
- TAKS exit level covers **0%** of Physics TEKS;  
it includes physics skills from IPC (objective 5)
- Physics EOC assessment is planned to cover **100%**  
of Physics TEKS

# Science TAKS Results



# 5<sup>th</sup> Grade Science TAKS

All Students	2006	2007	2008 (Prelim)
Statewide Met Standard	75 – English 65 – Spanish	77 – English 69 – Spanish	81 – English 60 – Spanish
Statewide Commended	24 – English 17 – Spanish	31 – English 25 – Spanish	37 – English 19 - Spanish
Average Scale Score	2202 – English 2144 – Spanish	2251 – English 2201 – Spanish	2271 – English 2136 – Spanish

# 8<sup>th</sup> Grade Science TAKS

All Students	2006 2 SEM Below	2007 1 SEM Below	2008 Panel Rec.
Statewide Met Standard	71	70	68
Statewide Commended	12	17	22
Average Scale Score	2112	2149	2199

# Exit Level (11<sup>th</sup> Grade) Science TAKS

All Students	2006	2007	2008 (prelim)
Statewide Met Standard	75 – All 46 – SpecEd	77 – All 51 – SpecEd	80 – All 38 – SpecEd
Statewide Commended	9 – All 2 – SpecEd	11 – All 3 – SpecEd	12 – All 2 - SpecEd
Average Scale Score	2184 – All 2089 – SpecEd	2196 – All 2169 – SpecEd	2213 – All 2068 – SpecEd

# Texas Mathematics & Science Diagnostic System



***NEW vendor has been awarded contract to manage TMSDS.***





# The Princeton Review

[www.tmsds.org](http://www.tmsds.org)

***EVERY CHILD CAN ACHIEVE™***



# New TMSDS Features

- The **new** Texas Mathematics and Science Diagnostic System (TMSDS) was available on **September 15, 2008**.
- Features include:
  - Preconfigured assessments
  - Open test bank of items
  - Distracter explanations
  - Diagnostics & quizzes in English and Spanish coming next semester

# New TMSDS Features

- **3 diagnostic tests** available for each grade level/course – 30 questions each
- **5-question “mini-assessments”** available for most Student Expectations for each grade level/course

# **New TMSDS**

**Fall 2008**

- **Grades 3-8; and IPC, Biology, Chemistry, and Physics**
- **24/7 online video training video**
- **Tags for Bloom's Taxonomy and Webb depth of knowledge level of difficulty**
- **Variety of teacher and administrator reports available**
- **Assignable date and time range**



# PAEMST

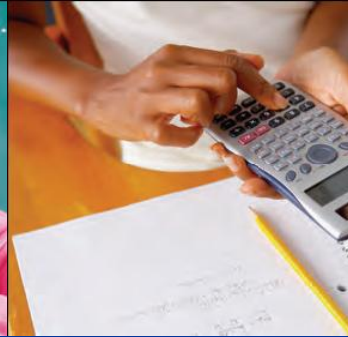
*Rewarding and  
Inspiring  
Great Teaching*

# Presidential Awards for Excellence in Mathematics and Science Teaching



- ◆ **The Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) Program was established in 1983 by The White House and is sponsored by the National Science Foundation (NSF).**
- ◆ **The program recognizes outstanding mathematics and science teachers, kindergarten through 12th grade, in each state and the four U.S. jurisdictions.**
- ◆ **These teachers will serve as models for their colleagues and will be leaders in the improvement of science and mathematics education.**

Presidential Awards for  
Excellence in Mathematics  
and Science Teaching



## 2008 Finalist



### Candy Ellard



- Candy Ellard, has been teaching 27 years and is currently a fifth grade teacher at Pillow Elementary School in Austin ISD. Her principal is Tony King and her superintendent is Dr. Pat Forgione.



Presidential Awards for  
Excellence in Mathematics  
and Science Teaching



## 2008 Finalist

### Amanda Santana

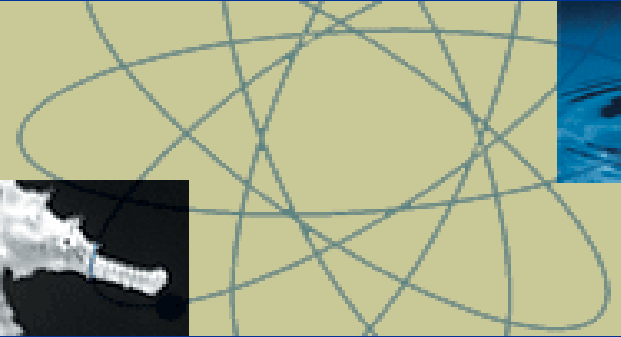
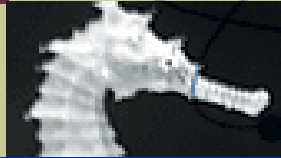


- Amanda Santana is . Amanda Santana has been teaching for 18 years and is currently teaching elementary science at The Rice School in Houston ISD. Her principal is Ms Kimberly Hobbs and her superintendent is Dr. Abelardo Saavedra



Presidential Awards for  
Excellence in Mathematics  
and Science Teaching

9	10	11	12
0	0	0	0
9	10	11	12
18	20	22	24
27	30	33	36
36	40	44	48



**2007 Awardee**  
**7-12 Science**

**Deborah Harris**  
***St. Francis Episcopal Day***  
***School, Houston TX***



Presidential Awards for  
Excellence in Mathematics  
and Science Teaching



# Upcoming Application Deadlines

**YEAR**

**WHO CAN APPLY**

**DEADLINE**

**2009**

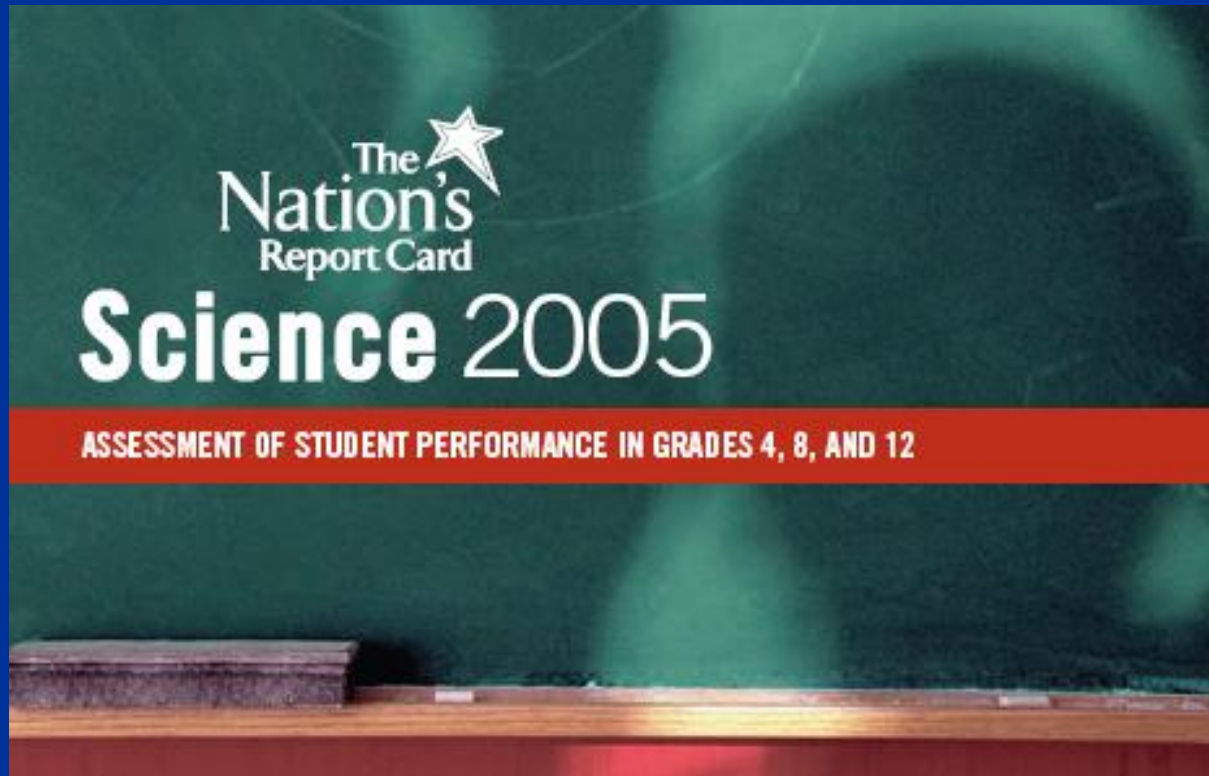
**7- 12 Teachers**

**May 1, 2009**

**2010**

**K- 6 Teachers**

**May 1, 2010**



# 2009 NAEP

**National Assessment of Educational Progress**

# 2009 NAEP

## National Assessment of Educational Progress

- The NAEP 2009 assessment will be given in **mathematics, reading, and science** in grades 4, 8, and 12.
- January 26 to March 6, 2009
- Over 1,000,000 students in more than 19,000 public and private schools in each state and the nation.

# NAEP Science Content Topics and Subtopics

Earth & Space Science	Life Science	Physical Science
<p><b>Earth in Space and Time</b></p> <ul style="list-style-type: none"><li>• Objects in the universe</li><li>• History of Earth</li></ul> <p><b>Earth Structures</b></p> <ul style="list-style-type: none"><li>• Properties of Earth materials</li><li>• Tectonics</li></ul> <p><b>Earth Systems</b></p> <ul style="list-style-type: none"><li>• Energy in Earth systems</li><li>• Climate and weather</li><li>• Biogeochemical cycles</li></ul>	<p><b>Structures and Functions of Living Systems</b></p> <ul style="list-style-type: none"><li>• Organization and development</li><li>• Matter and energy transformations</li><li>• Interdependence</li></ul> <p><b>Changes in Living Systems</b></p> <ul style="list-style-type: none"><li>• Heredity and reproduction</li><li>• Evolution and diversity</li></ul>	<p><b>Matter</b></p> <ul style="list-style-type: none"><li>• Properties of matter</li><li>• Changes in matter</li></ul> <p><b>Energy</b></p> <ul style="list-style-type: none"><li>• Forms of energy</li><li>• Energy transfer and conservation</li></ul> <p><b>Motion</b></p> <ul style="list-style-type: none"><li>• Motion at the macroscopic level</li><li>• Forces affecting motion</li></ul>

# NAEP Item Distribution by Content Area

	<b>Grade 4 (%)</b>	<b>Grade 8 (%)</b>	<b>Grade 12 (%)</b>
<b>Physical</b>	<b>33.0</b>	<b>30.0</b>	<b>37.5</b>
<b>Life</b>	<b>33.0</b>	<b>30.0</b>	<b>37.5</b>
<b>Earth/Space</b>	<b>33.0</b>	<b>40.0</b>	<b>25.0</b>



# Goals

*Things to  
Accomplish  
Together*

# Goals for Texas Science Education

1. Support the **active engagement** of students in lab and field investigations.
2. Promote **science literacy** so that all students see the integration of life science, earth science, and physical science – with real-life and technological applications.
3. Work with the ESCs to create **professional development opportunities** to support the revised set of science standards.



# Goals for Texas Science Education

4. Support **4 years of high school science** for graduation by:
  - Providing professional development for teachers (in content and inclusiveness)
  - Providing guidance to parents and the community (on the benefits), and
  - Share options for science course credit.

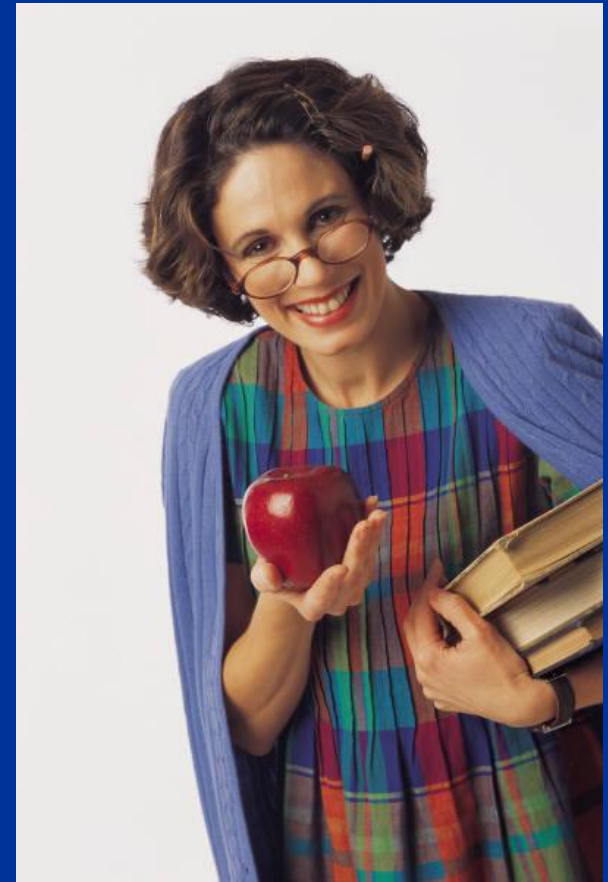
# Goals for Texas Science Education

5. Ensure deep **alignment of the state standards and assessments** so that data analysis can help guide classroom instruction.
6. Encourage **alternate methods** of to deliver professional development.

# Goals for Texas Science Education

7. **Support** the other foundation content areas:
  - A. **Language Arts** – by encouraging writing in science and the reading of non-fiction books.
  - B. **Mathematics** – by emphasizing calculations, conversions, and representations of data (tables, charts, graphs).

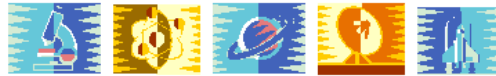
**We Need You!**  
**Sign up for the . . .**  
**Science**  
**Listserve!**



**[www.tea.state.tx.us/list/](http://www.tea.state.tx.us/list/)**

# Science Calendar

## Science Calendar of Events (as of July 1, 2008)



### 2008 Events

July 4 – Independence Day Holiday  
July 8-10 – Texas Regional Collaboratives Annual Meeting, Austin  
July 17-18 – Texas State Board of Education Meeting, Austin  
September 1 – Labor Day  
September 5 – TSELA Meeting, Dallas  
September 19-20 – Texas State Board of Education Meeting, Austin  
October 15 – Deadline for NSTA Award Applications (may be extended to Nov. 30)  
October 23 – Exit Level Science Retest (regular and online)  
November 5 – TSELA Meeting, Fort Worth  
November 6-8 – CAST Science Teachers Conference, Fort Worth  
November 11 – Veteran's Day  
November 20-21 – Texas State Board of Education Meeting, Austin  
November 27 – Thanksgiving  
December 25 – Christmas Day

### 2009 Events

January 1 – New Year's Day  
January TBA – Texas State Board of Education Meeting, Austin  
January 19 – Martin Luther King Jr. Day  
January 26-28 – TASA Mid-winter Conference, Austin  
January 30 – TSELA Meeting, Fort Worth  
Late January – Early March – NAEP Assessments (selected samples; Science 4, 8, 12)  
March TBA – Texas State Board of Education Meeting, Austin  
March 5 – Exit Level Science Retest (regular and online)  
March 19-22 – NSTA National Conference, New Orleans  
March 28-31 – Texas Science and Engineering Fair, San Antonio  
April 22 – Earth Day  
April 24-25 – Texas Science Olympiad, College Station  
April 27-May 1 – TAKS Testing  
April 30 – Science TAKS, Grades 5, 8, 10, Exit Level  
April 30 – Exit Level Science Retest (regular and online)  
May TBA – Texas State Board of Education Meeting, Austin  
May 1 – LAT Science, Grades 5, 8, 10  
May 4-22 – Physics End-of-Course Exam Online Field Test Window  
May 11-29 – End-of-Course Exam Online Tests (optional); Biology and Chemistry  
May 25 – Memorial Day  
July TBA – Texas State Board of Education Meeting, Austin  
July 16 – Exit Level Science Retest (regular and online)

Texas Education Agency – Science Team – Kenn Heydrick & Irene Pickhardt, 512-463-9581, [www.tea.state.tx.us](http://www.tea.state.tx.us)



## TEXAS EDUCATION AGENCY

Thursday, Nov. 6  
3:45-5:00 pm  
Workshop 1232  
Convention Center 108

### **Update on Middle School Science in Texas**

Kenn Heydrick, Ed.D., Director of Science, Texas Education Agency  
Irene Pickhardt, Assistant Director of Science, Texas Education Agency  
Cyndi Loudon, Ph.D., Student Assessment Manager, Texas Education Agency

*There are many exciting new developments in middle school science. We will present information on the 4x4 graduation requirements, Science TEKS revisions, TAKS, TALA reading program, College Readiness Standards, and much more. Many great resources and programs are available for middle school educators. Come hear the latest news!*

Friday, Nov. 7  
9:00-10:15 am  
Workshop 2001  
Convention Center 108

### **Update on High School Science in Texas**

Kenn Heydrick, Ed.D., Director of Science, Texas Education Agency  
Irene Pickhardt, Assistant Director of Science, Texas Education Agency  
Cyndi Loudon, Ph.D., Student Assessment Manager, Texas Education Agency

*There are many exciting new developments in high school science. We will present information on the 4x4 graduation requirements, Science TEKS revisions, TAKS, End-of-Course science exams, College Readiness Standards, and much more. Many great resources and programs are available for high school educators. Come hear the latest news!*

Saturday, Nov. 8  
9:00-10:15 am  
Workshop 3001  
Convention Center 108

### **Update on Elementary School Science in Texas**

Kenn Heydrick, Ed.D., Director of Science, Texas Education Agency  
Irene Pickhardt, Assistant Director of Science, Texas Education Agency  
Cyndi Loudon, Ph.D., Student Assessment Manager, Texas Education Agency

*There are many exciting developments in elementary school science. We will present information on the 4x4 graduation requirements, Science TEKS revisions, TAKS, and much more. Many great resources and programs are available for elementary school educators. Come hear the latest news!*

Saturday, Nov. 8  
1:00-2:15 pm  
Workshop 3077  
Convention Center 108

### **New Texas Math and Science Diagnostic System**

Larry Ward, ESC Region 10

*The Texas Education Agency released a new assessment tool for science and math educators on September 15. TEA has teamed up with The Princeton Review to create a new assessment resource for teachers. Each grade level will have access to 3 TEKS-aligned diagnostics, 35 quizzes, and a huge test bank. Come learn about this incredible on-line resource for grades 3 through high school.*

Saturday, Nov. 8  
2:45-4:00 pm  
Workshop 3093  
Convention Center 108

### **Field Investigations and Fitness!**

Irene Pickhardt, Assistant Director of Science, Texas Education Agency  
Leslie Dubey, Big Thicket Preserve

*How did your students perform on the new FitnessGram this year? Come learn how science field investigations help students become physically fit. Strength, aerobic capacity, flexibility and endurance can all increase while students experience the natural world. Resource packet for participants include field activities linked to learning objectives, science field trip destinations and FitnessGram Tests.*

# Science Contacts at TEA

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

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# TEXAS EDUCATION AGENCY

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



# THANK YOU !



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