



TEA Mathematics and Science Update

Texas Regional Collaboratives 16th Annual Meeting - Austin

Everly Broadway, Ed.D., Director of Mathematics
Kenn Heydrick, Ed.D., Director of Science

June 30, 2010

Copyright © Texas Education Agency 2010. All rights reserved.

1



© 2010 by the Texas Education Agency Copyright © Notice.

The Materials are copyrighted © and trademarked ™ as the property of the Texas Education Agency (TEA) and may not be reproduced without the express written permission of TEA, except under the following conditions:

- 1) Texas public school districts, charter schools, and Education Service Centers may reproduce and use copies of the Materials and Related Materials for the districts' and schools' educational use without obtaining permission from TEA.
- 2) Residents of the state of Texas may reproduce and use copies of the Materials and Related Materials for individual personal use only, without obtaining written permission of TEA.
- 3) Any portion reproduced must be reproduced in its entirety and remain unedited, unaltered and unchanged in any way.
- 4) No monetary charge can be made for the reproduced materials or any document containing them; however, a reasonable charge to cover only the cost of reproduction and distribution may be charged.

Private entities or persons located in Texas that are **not** Texas public school districts, Texas Education Service Centers, or Texas charter schools or any entity, whether public or private, educational or non-educational, located **outside the state of Texas** **MUST** obtain written approval from TEA and will be required to enter into a license agreement that may involve the payment of a licensing fee or a royalty.

For information contact: Office of Copyrights, Trademarks, License Agreements, and Royalties, Texas Education Agency, 1701 N. Congress Ave., Austin, TX 78701-1494; phone 512-463-7004; email: copyrights@tea.state.tx.us.

Copyright © Texas Education Agency 2010. All rights reserved.

2

Agenda

- Mathematics
- Science
- Other Agency Resources

Mathematics Update

Higher Expectations

- College and Career Readiness Standards
- Graduation Requirements
- End of Course Tests



College and Career Readiness Standards

“If America is to remain competitive in tomorrow's global workforce, our students must first be able to successfully complete the first year of college without the need for remedial or developmental education.”

Texas Higher Education Coordinating Board, www.thecb.state.tx.us

Copyright © Texas Education Agency 2010. All rights reserved.

5



Graduation Requirements

- Entered high school before 2007–2008
 - 3 math credits required for the Recommended High School Program (RHSP): Algebra I, Geometry, and Algebra II
- Entered high school in 2007–2008 and thereafter
 - Graduating under the 4 X 4 RHSP

Copyright © Texas Education Agency 2010. All rights reserved.

6



Graduation Requirements for students who entered high school in 2007-2008 and thereafter

Copyright © Texas Education Agency 2010. All rights reserved.

7



Graduation Requirements

Minimum Plan Mathematics Requirements

- Algebra I
- Geometry
- 3rd math credit

Copyright © Texas Education Agency 2010. All rights reserved.

8

4 X 4 RHSP Mathematics Requirements

- After successful completion of Algebra I, Geometry, and Algebra II, a student may select the fourth required math credit.
- If Mathematical Models with Applications or Mathematical Applications in Agriculture, Food, and Natural Resources is chosen as the 4th math credit, it must be successfully completed **prior to** Algebra II.

Distinguished Achievement Program (DAP) Mathematics Requirements

- Algebra I
- Algebra II
- Geometry
- Additional SBOE-approved mathematics course for which Algebra II is a prerequisite



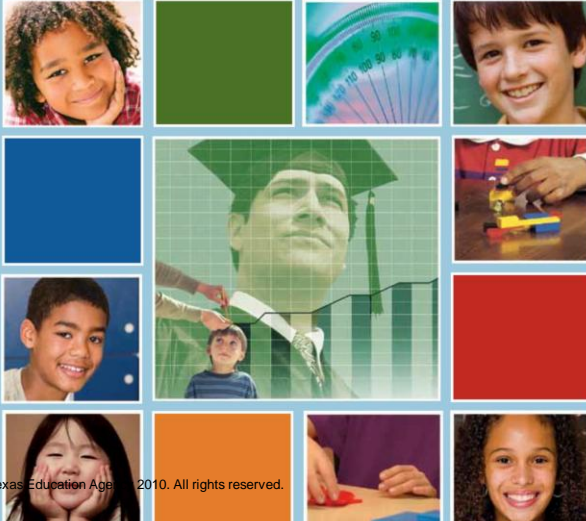
Where will they be in 2011-2012?

- Twelfth Graders
 - Second class to have 4 X 4 RHSP
 - First 8th grade class affected by SSI grade advancement requirements
- Ninth graders
 - First class to have end-of-course assessments as a graduation requirement



Algebra Readiness Components

- Texas Response to Curriculum Focal Points (TxRCFP)
- Mathematics Professional Development Academies
- MSTAR Universal Screener
- Grants to Districts



TEXAS Response to Curriculum Focal Points
for Kindergarten through Grade 8 Mathematics

Copyright © Texas Education Agency 2010. All rights reserved.

13

- Aligns student expectations to key topics (focal points)
- Emphasizes integration of concepts across the strands/skills that naturally leads to mathematical connections and higher-level thinking
- Identifies critical areas that connect and integrate mathematical proficiency and understanding



Upcoming Math Professional Development

- MSTAR Math Academies
- Algebra I EOC Success Academy
- ESTAR
- GATAR

Copyright © Texas Education Agency 2010. All rights reserved.

15



MSTAR Math Academies

Middle-school Students in Texas: Algebra Ready

- Serves grades 5-6 & grades 7-8
- Explores hands-on, student-centered lessons
- Strengthens knowledge of the middle school mathematics that is critical for success in algebra
- Connects to CCRS, ELPS, and RtI
- Available through ESCs

Copyright © Texas Education Agency 2010. All rights reserved.

16



Algebra I EOC Success

- Focuses on strategies to prepare students for success on the EOC assessment
- Explores hands-on, student-centered lessons
- Strengthens connections to CCRS and ELPS
- Applies Rtl and G/T strategies
- Available through ESCs

Copyright © Texas Education Agency 2010. All rights reserved.

17



ESTAR

Elementary Students in Texas: Algebra Ready

- Serves grades K-5
- Investigates TxRCFP framework and intervention strategies for struggling students
- Offered through the Texas Regional Collaboratives (TRC)

Copyright © Texas Education Agency 2010. All rights reserved.

18

Geometric Approach to Algebra Readiness

- Serves grades 6-8
- Investigates differentiated instructional strategies
- Emphasizes connections between algebra and geometry
- Offered through the TRC

Copyright © Texas Education Agency 2010. All rights reserved.

19

MSTAR

Goal:
Algebra
Readiness

ESTAR


EOC

Copyright © Texas Education Agency 2010. All rights reserved.


20

MSTAR Math Academies (Grades 5/6 and 7/8)


Algebra I EOC Success Academy



Copyright © Texas Education Agency 2010. All rights reserved. 21



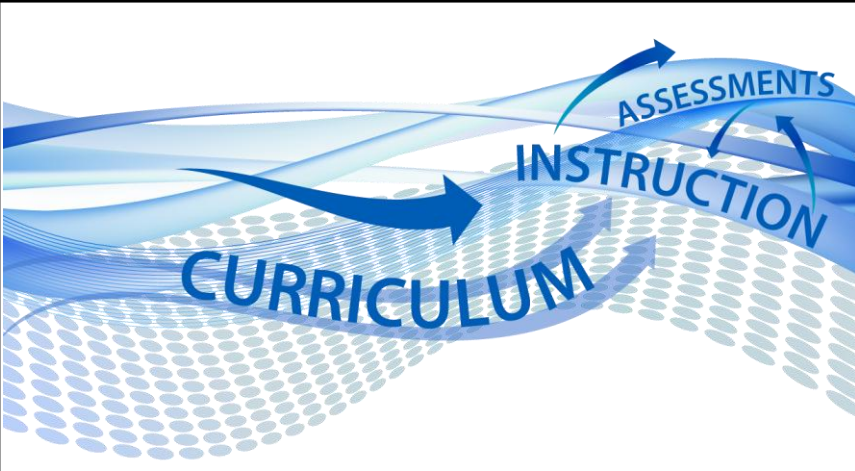
Building Depth and Complexity



Copyright © Texas Education Agency 2010. All rights reserved. 22

TEA
TEXAS EDUCATION AGENCY

Critical Components of Education



ASSESSMENTS
INSTRUCTION
CURRICULUM

Copyright © Texas Education Agency 2010. All rights reserved. 23

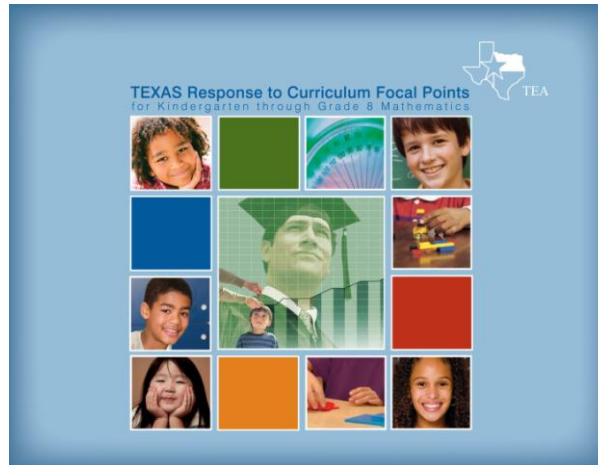
TEA
TEXAS EDUCATION AGENCY

What does it mean for a student to be ready for algebra?

- Concepts
- Procedures (algorithms)
- Study Habits
- Disposition & Perseverance

Copyright © Texas Education Agency 2010. All rights reserved. 24

Texas Response to Curriculum Focal Points



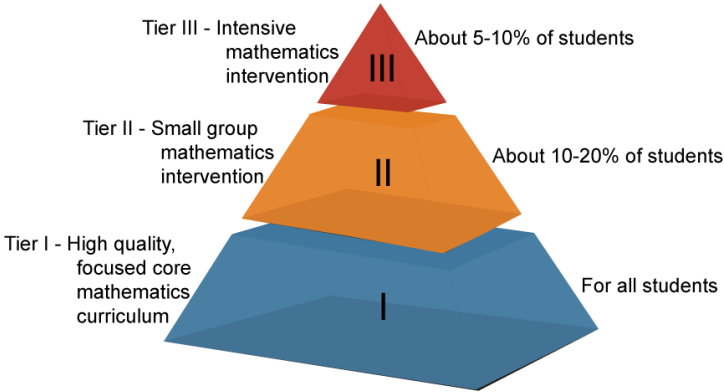
National Mathematics Advisory Panel (NMAP) Recommendations

Three Critical Foundations of Algebra

- Fluency with whole numbers
- Fluency with fractions
- Particular aspects of geometry and measurement

An RtI Model

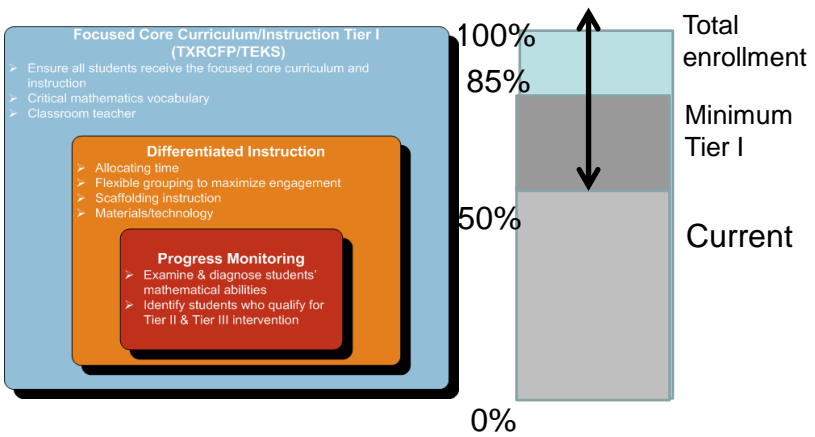
3 - Tier Intervention Model



Copyright © Texas Education Agency 2010. All rights reserved.

27

Quality Tier I Instruction



Copyright © Texas Education Agency 2010. All rights reserved.

28



Differentiating Instruction to Meet the Needs of ALL Students

Responding to the diverse needs of all students with a focus on

- Curriculum
- Instructional adaptations
- Services
- Instructional intensity

Source: (Bryant, D. P., Smith, D. D., & Bryant, B. R. (2008). Teaching students with special needs in inclusive classrooms. Boston, MA: Allyn & Bacon. p. 203).

Copyright © Texas Education Agency 2010. All rights reserved.

29



English Language Proficiency Standards (ELPS)

Strategies for providing support for

- Learning
- Listening
- Speaking
- Reading
- Writing

<http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html#74.4>

Copyright © Texas Education Agency 2010. All rights reserved.

30



Gifted/Talented (G/T) Performance Standards

- Interdisciplinary learning experiences for all grade levels
- Aligned to TEKS and CCRS
- Designed to engage learners and allow for individualized pacing
- Resources available at <http://www.texaspsp.org/>
- Training available through ESCs

Copyright © Texas Education Agency 2010. All rights reserved.

31



MSTAR Universal Screener

- Based on algebra-readiness content from TxRCFP, grade 5-8
- Designed to be administered in fall, winter, and spring
- Used as a formative assessment system to support instructional decisions
- Assesses Foundation, Bridging, and Target knowledge representations
- Available Fall 2010 on TMSDS

Copyright © Texas Education Agency 2010. All rights reserved.

32

The diagram features a light blue arch at the top with the text "Bridging Knowledge and Skills" inside it. Below the arch are two light blue rectangular boxes. The left box contains the text "Foundational Knowledge and Skills" and the right box contains "Target Knowledge and Skills".

TEA
TEXAS EDUCATION AGENCY

Connections Across the Knowledge Representations

Bridging Knowledge and Skills

Foundational Knowledge and Skills

Target Knowledge and Skills

Copyright © Texas Education Agency 2010. All rights reserved. 33

The slide lists current and planned Algebra Readiness Grants. The current grants include Cycle 1 with planning and implementation phases. Planned grants include Cycle 2 and grants for small and rural districts.

TEA
TEXAS EDUCATION AGENCY

Grants to Districts

- Current
 - Algebra Readiness Grants, Cycle 1
 - Planning phase
 - Implementation phase
- Planned
 - Algebra Readiness Grants, Cycle 2
 - Algebra Readiness Grants, Small and Rural

Copyright © Texas Education Agency 2010. All rights reserved. 34



Texas Math and Science Diagnostic System (TMSDS)

- Grades 3–8, Algebra I & II and Geometry
- 3 diagnostic tests available for each grade level/course; 30 questions each
- 5-question “mini-assessments” available for most student expectations
- Managed by Core K12
- Provided at no cost to school districts and charter schools
- Contact ESCs for technical assistance

Copyright © Texas Education Agency 2010. All rights reserved.

35



Science Update

- **Science TEKS**
- **Professional Development**
- **Instructional Materials**
- **Graduation Plans**
- **TMSDS**
- **Presidential Awards**
- **Science TAKS Results**
- **Serving All Students**
- **Other Agency Resources**

Copyright © Texas Education Agency 2010. All rights reserved.

36

- 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

New elementary time recommendations for classroom/outdoor 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”)



Middle School Investigations

New middle school time requirements for science investigations

- Grades 6-8
- Student-conducted laboratory/field investigations for **at least 40%** of the instructional time



High School Investigations

Continued high school time requirements for science investigations

- Grades 9-12
- Student-conducted laboratory/field investigations for **at least 40%** of the instructional time

- Clarified importance in K-12 TEKS
- 3 types
 - Descriptive investigations
 - Comparative investigations
 - Experimental investigations

- **Descriptive Investigation:** involves collecting qualitative and/or quantitative data to draw conclusions about a natural or man-made system (e.g., rock formation, animal behavior, cloud, bicycle, electrical circuit). A descriptive investigation includes a question, but no hypothesis. Observations are recorded, but no comparisons are made and no variables are manipulated.
- **Comparative Investigation:** involves collecting data on different organisms/objects/features/events, or collecting data under different conditions (e.g. time of year, air temperature, location) to make a comparison. The hypothesis identifies one independent (manipulated) variable and one dependent (responding) variable. A “fair test”* can be designed to measure variables so that the relationship between them is determined.
- **Experimental Investigation:** involves designing a “fair test”* similar to a comparative investigation, but a control is identified. The variables are measured in an effort to gather evidence to support or not support a causal relationship. This is often called a “controlled experiment.”

* A fair test is conducted by making sure that only one factor (variable) is changed at a time, while keeping all other conditions the same.



Science TEKS Professional Development

Professional development opportunities

- Spring and summer 2010
 - K-12 science TEKS (1 day)
 - 5-8 Academies (3 days)
 - Biology EOC Success (3 days)
- Spring and summer 2011
 - Chemistry EOC Success
 - Physics EOC Success

Copyright © Texas Education Agency 2010. All rights reserved.

43



Science TEKS Professional Development

- Contact the science specialist at your ESC for registration information.
- Contact information for ESCs can be found at <http://ritter.tea.state.tx.us/ESC/>.

Copyright © Texas Education Agency 2010. All rights reserved.

44



Science Instructional Materials

- Proclamation 2012 (Science) postponed
- Request for supplemental instructional materials that meet all of the new and expanded TEKS
- Grades 5-8, Biology, Chemistry, Integrated Physics and Chemistry (IPC), and Physics
- Scheduled to be implemented in schools beginning with the 2011-2012 school year
- Information at <http://ritter.tea.state.tx.us/textbooks/proclamations/SupplementalScience/index.html>



Graduation Plans - Science

Minimum Program	Recommended HS Program	Distinguished Achievement Program
<p>Two credits:</p> <ul style="list-style-type: none"> • Biology • Integrated Physics and Chemistry <p>May substitute Chemistry or Physics for IPC but must use the other as academic elective credit</p>	<p>Four credits:</p> <ul style="list-style-type: none"> • Biology, AP Biology, or IB Biology • Chemistry, AP Chemistry, or IB Chemistry • Physics, Principles of Technology, AP Physics, or IB Physics • The additional credit may be IPC and must be successfully completed prior to chemistry and physics. • The fourth credit may be selected from any of the following: <ul style="list-style-type: none"> <input type="checkbox"/> Aquatic Science <input type="checkbox"/> Astronomy <input type="checkbox"/> Earth and Space Science <input type="checkbox"/> Environmental Systems <input type="checkbox"/> AP Biology <input type="checkbox"/> AP Chemistry <input type="checkbox"/> AP Physics B <input type="checkbox"/> AP Physics C <input type="checkbox"/> AP Environmental Science <input type="checkbox"/> IB Biology <input type="checkbox"/> IB Chemistry <input type="checkbox"/> IB Physics <input type="checkbox"/> IB Environmental Systems <input type="checkbox"/> Scientific Research and Design (CTE) <input type="checkbox"/> Anatomy and Physiology (CTE) <input type="checkbox"/> Engineering Design and Problem Solving (CTE) <input type="checkbox"/> Medical Microbiology (CTE) <input type="checkbox"/> Pathophysiology (CTE) <input type="checkbox"/> Advanced Animal Science (CTE) <input type="checkbox"/> Advanced Biotechnology (CTE) <input type="checkbox"/> Advanced Plant and Soil Science (CTE) <input type="checkbox"/> Food Science (CTE) <input type="checkbox"/> Forensic Science (CTE) 	<p>Four credits:</p> <ul style="list-style-type: none"> • Biology, AP Biology, or IB Biology • Chemistry, AP Chemistry, or IB Chemistry • Physics, AP Physics, or IB Physics • After successful completion of a biology course, a chemistry course, and a physics course, the fourth credit may be selected from any of the following: <ul style="list-style-type: none"> <input type="checkbox"/> Aquatic Science <input type="checkbox"/> Astronomy <input type="checkbox"/> Earth and Space Science <input type="checkbox"/> Environmental Systems <input type="checkbox"/> AP Biology <input type="checkbox"/> AP Chemistry <input type="checkbox"/> AP Physics B <input type="checkbox"/> AP Physics C <input type="checkbox"/> AP Environmental Science <input type="checkbox"/> IB Biology <input type="checkbox"/> IB Chemistry <input type="checkbox"/> IB Physics <input type="checkbox"/> IB Environmental Systems <input type="checkbox"/> Anatomy and Physiology (CTE) <input type="checkbox"/> Engineering Design and Problem Solving (CTE) <input type="checkbox"/> Medical Microbiology (CTE) <input type="checkbox"/> Pathophysiology (CTE) <input type="checkbox"/> Advanced Biotechnology (CTE) <input type="checkbox"/> Advanced Plant and Soil Science (CTE) <input type="checkbox"/> Food Science (CTE) <input type="checkbox"/> Forensic Science (CTE)

New CTE Options for RHSP/DAP



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 as currently stated in the TAC.*

Copyright © Texas Education Agency 2010. All rights reserved.

47



Texas Math and Science Diagnostic System (TMSDS)

- 2010-2011 version based on new science TEKS; Grades 3–8, IPC, Biology, Chemistry, Physics
- 3 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
- www.tmsds.org

Copyright © Texas Education Agency 2010. All rights reserved.

48

Presidential Awards (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.

- Texas Finalists Selected (K-6)
- Nominations (7-12) Due April 1, 2011
- Applications (7-12) Due May 1, 2011
- More information at www.PAEMST.org



Presidential Awards (PAEMST)

2009 Texas Secondary Mathematics Finalists

- **Vicki Peters** is a high school mathematics teacher from Duncanville High School, Duncanville ISD, who has 27 years of teaching experience.
- **Lara Scheumack** is a middle school mathematics teacher from Rockport Fulton Middle School, Aransas County ISD, who has 8 years of teaching experience.
- **Mallory Zimmerman** is a middle school mathematics teacher from Uvalde Junior High School, Uvalde CISD, who has 23 years of teaching experience.



Presidential Awards (PAEMST)

2010 PAEMST Awardee for Texas Mathematics



Mallory Zimmerman

Mallory Zimmerman is a 23-year veteran teacher and currently teaches algebra at Uvalde Junior High School in Uvalde CISD. Her principal is Kenneth Mueller and her superintendent is Wendell Brown.

Copyright © Texas Education Agency 2010. All rights reserved.

51

Presidential Awards (PAEMST)

2009 Texas Secondary Science Finalists – Science

- **Mila Bersabal** is a high school physics teacher from Lee High School, Houston, who has 18 years of teaching experience.
- **Michele Mann** is a high school biology teacher from Vista Ridge High School, Cedar Park, who has 10 years of teaching experience.
- **Stef Paramoure** is an 8th grade science teacher from Canyon Middle School, New Braunfels, who has 7 years of teaching experience.



Copyright © Texas Education Agency 2010. All rights reserved.

52

Presidential Awards (PAEMST)

**Official
2010
PAEMST
Recipient
for Texas
Science**



Stef Paramoure

In 2010-2011, Stef was an 8th grade science teacher from Canyon Middle School, New Braunfels, who had 7 years of teaching experience.

She is currently employed as a science specialist at ESC XIII in Austin.

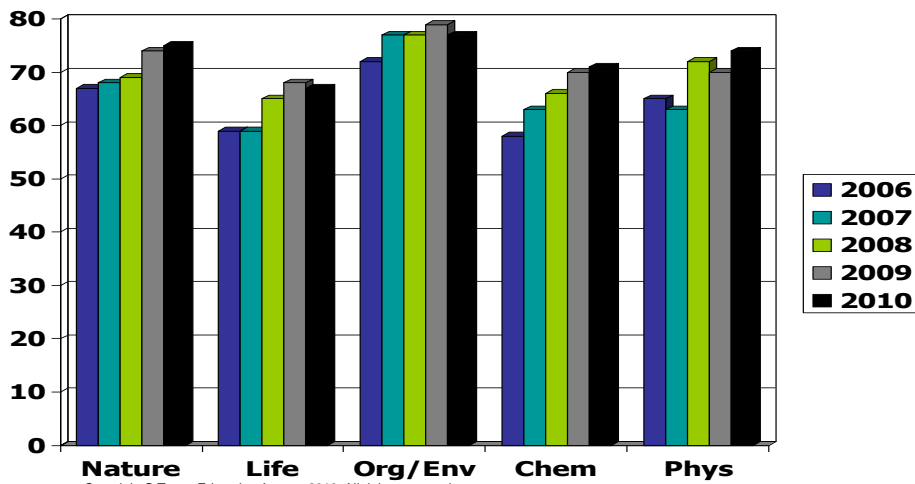
Science TAKS Results





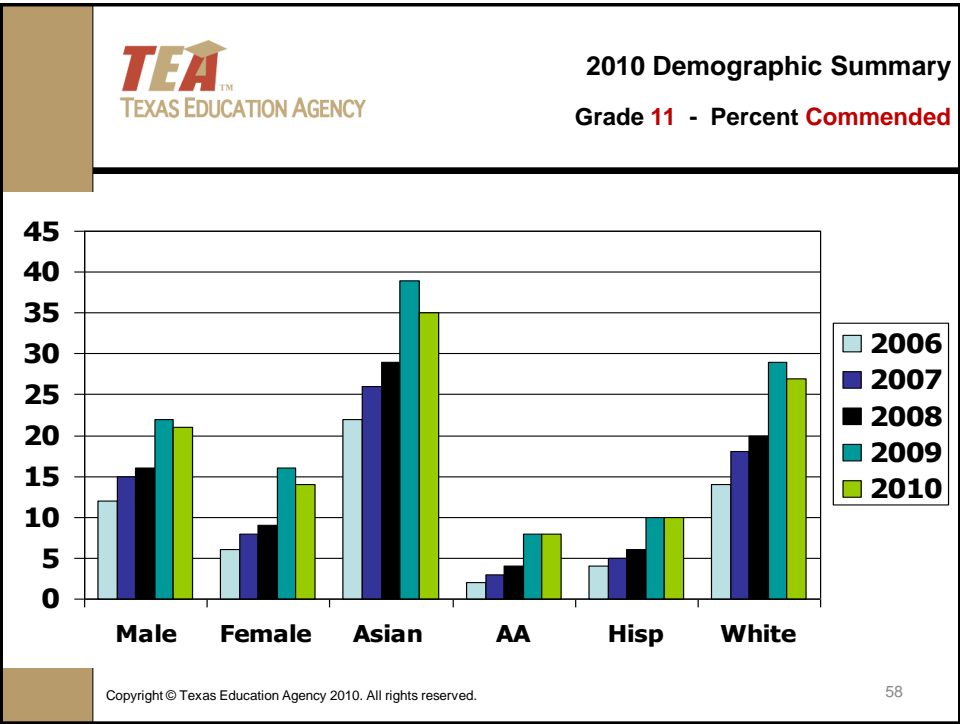
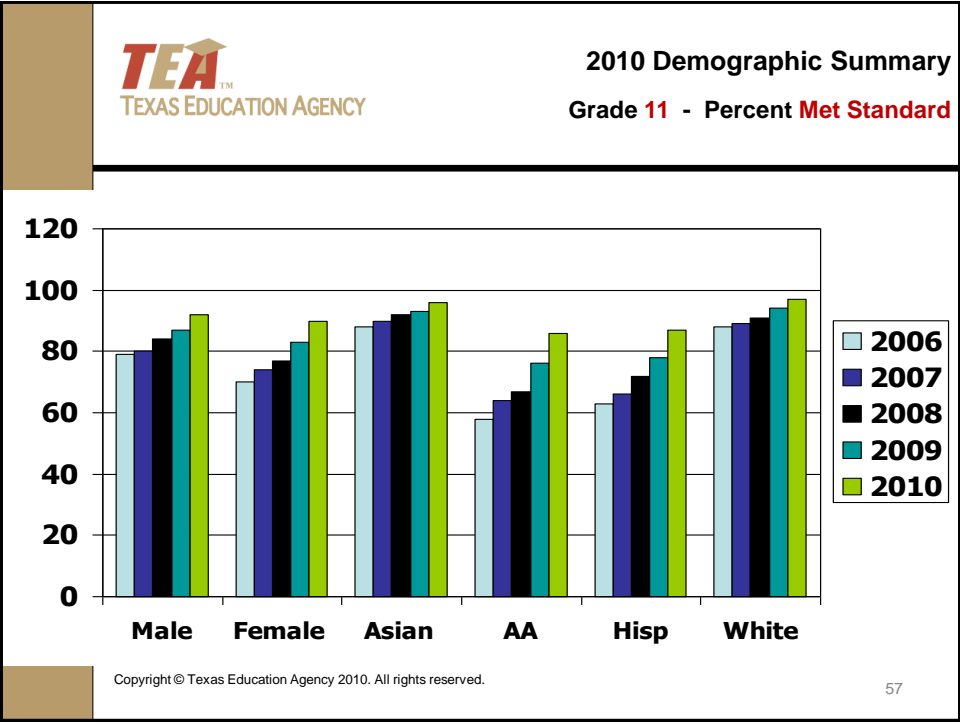
Copyright © Texas Education Agency 2010. All rights reserved.

55



Copyright © Texas Education Agency 2010. All rights reserved.

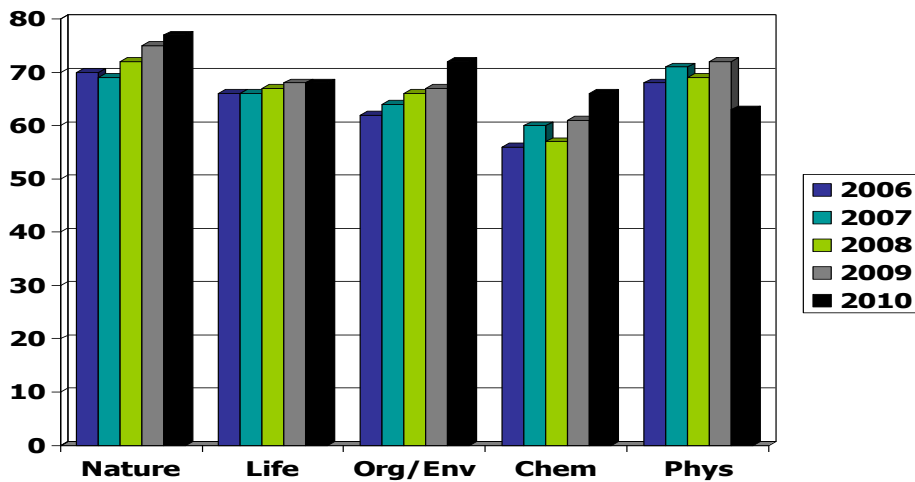
56





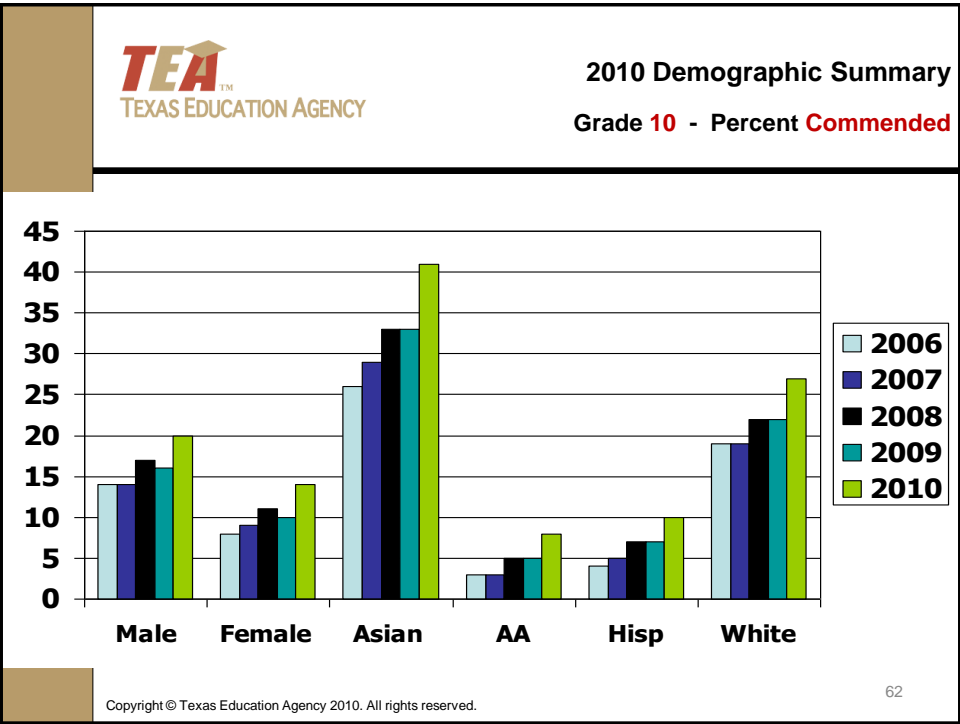
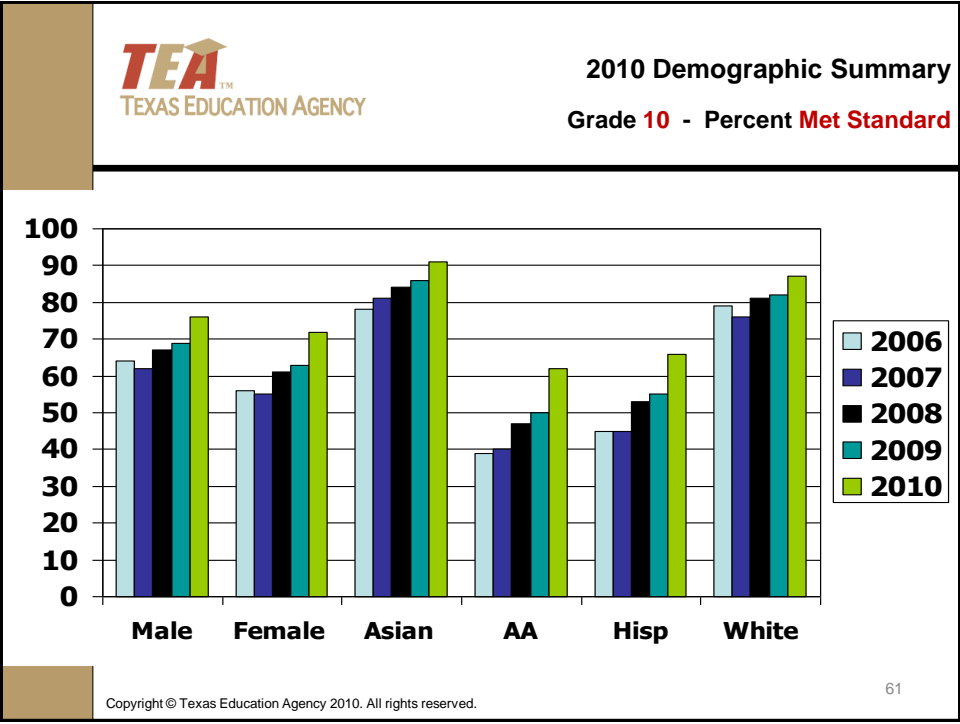
Copyright © Texas Education Agency 2010. All rights reserved.

59



Copyright © Texas Education Agency 2010. All rights reserved.

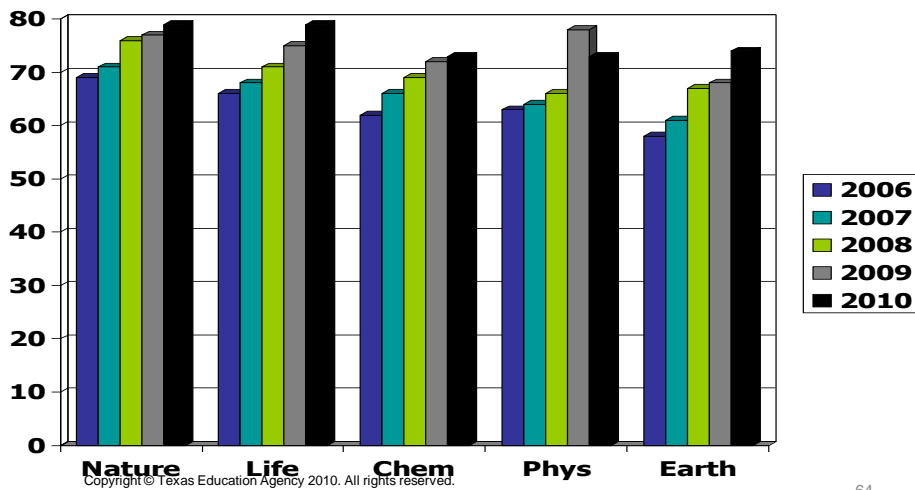
60





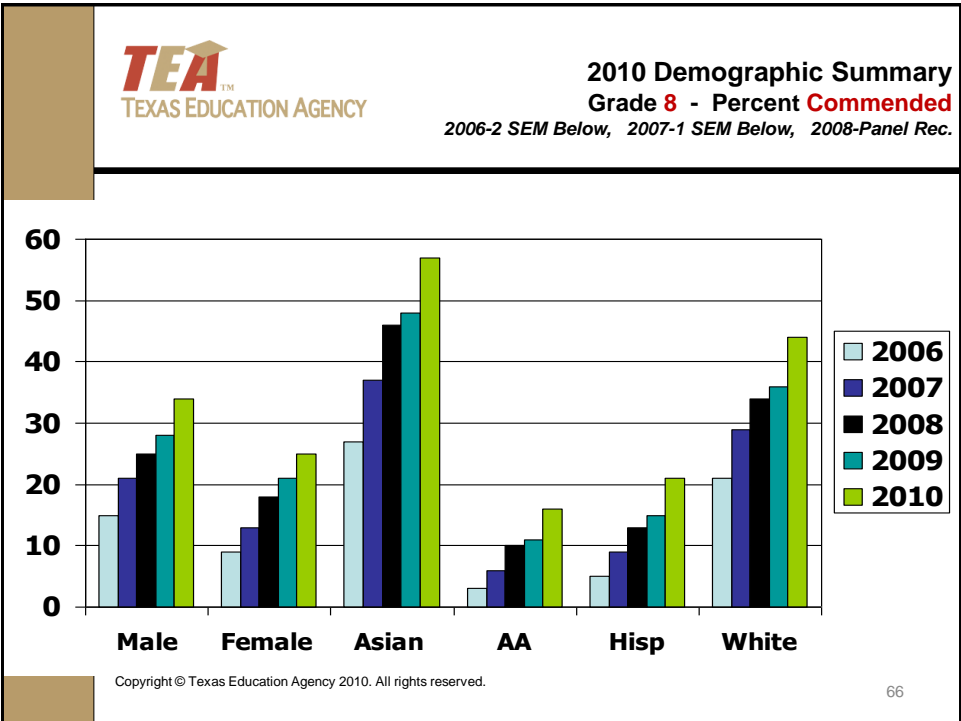
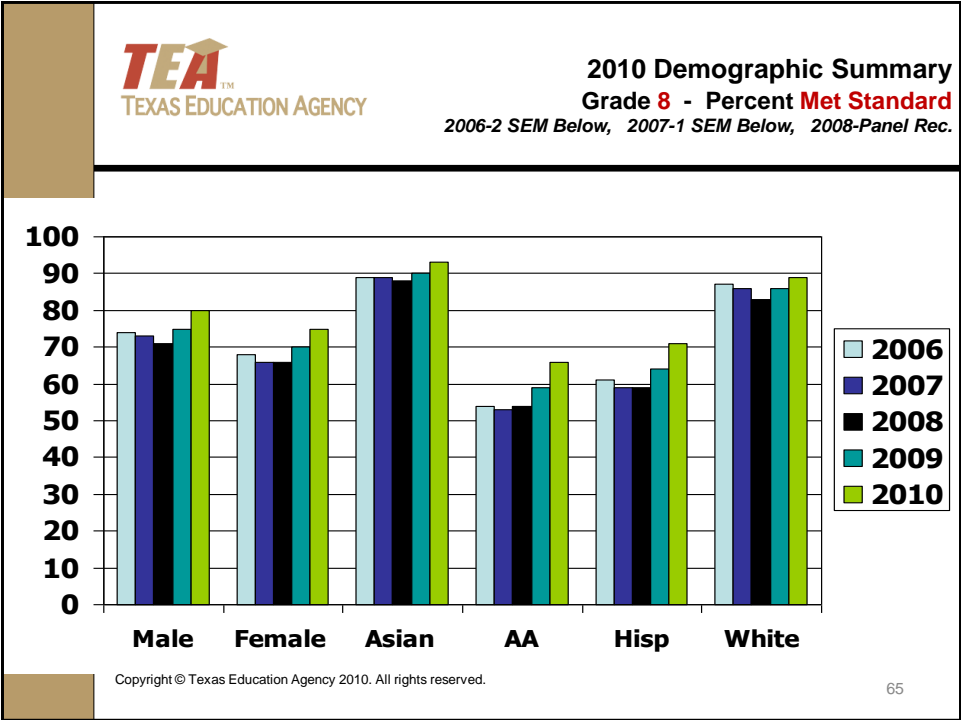
Copyright © Texas Education Agency 2010. All rights reserved.

63



Copyright © Texas Education Agency 2010. All rights reserved.

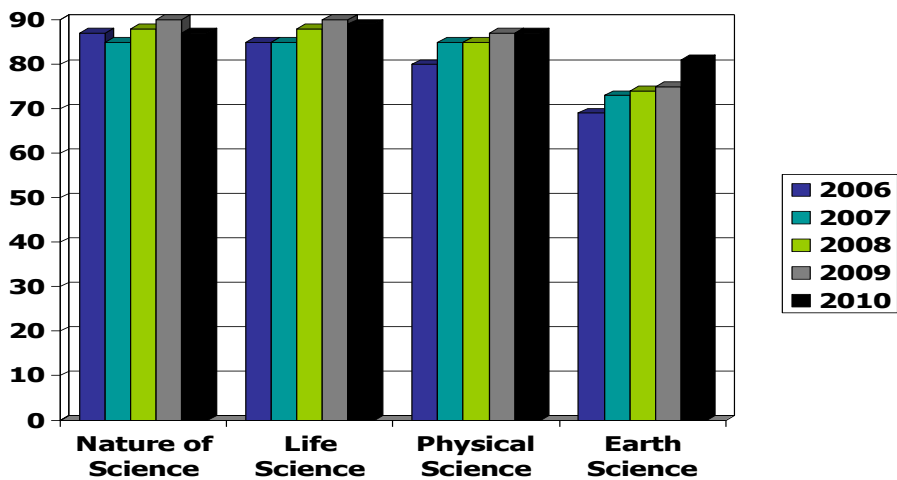
64





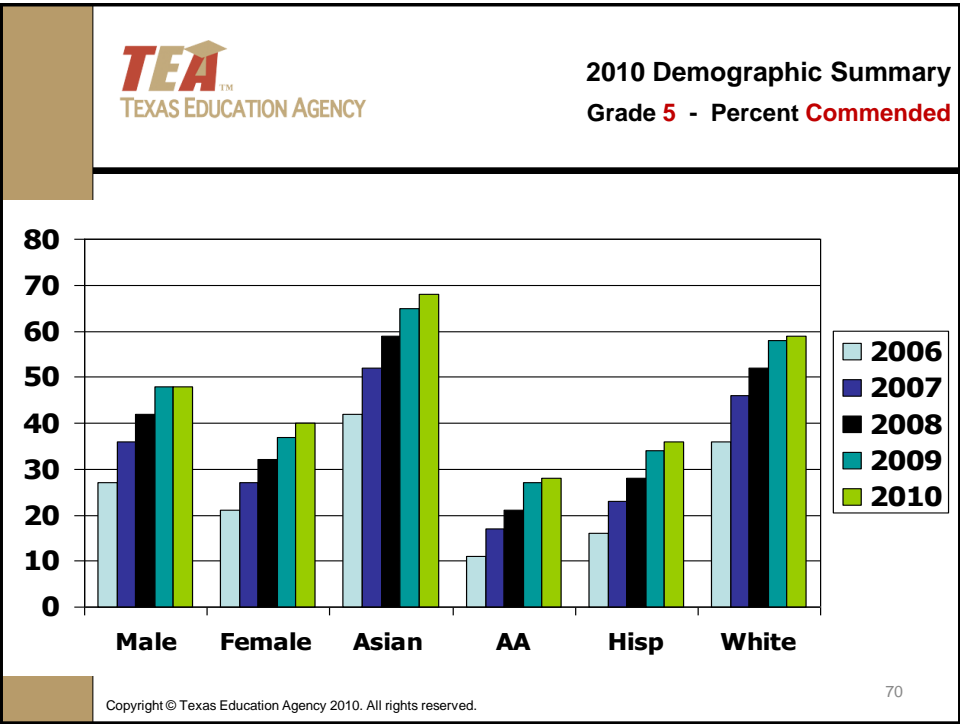
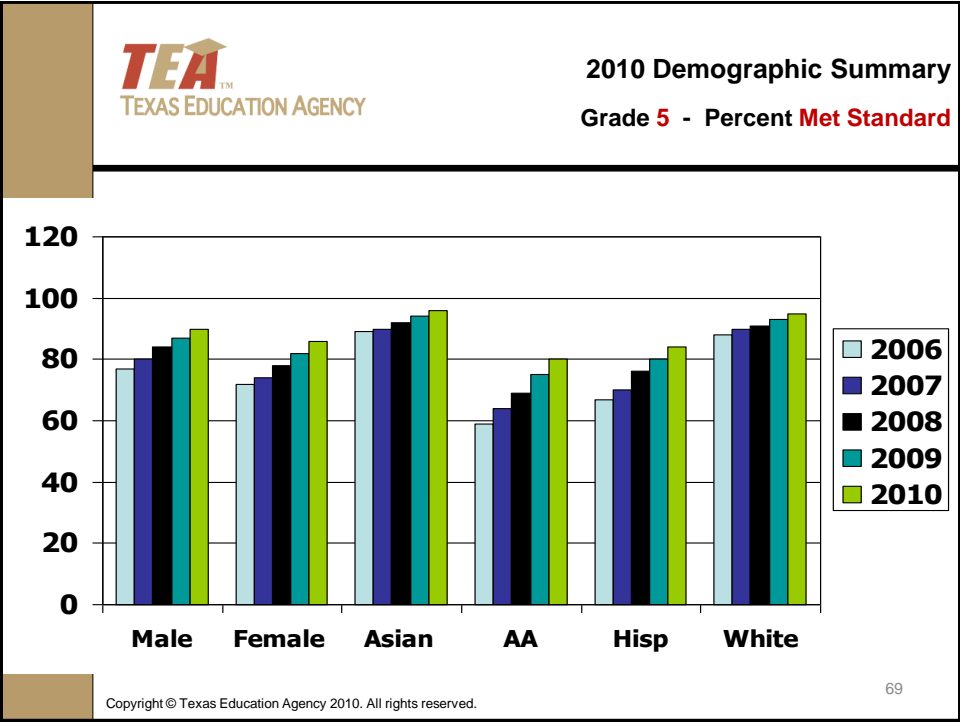
Copyright © Texas Education Agency 2010. All rights reserved.

67



Copyright © Texas Education Agency 2010. All rights reserved.

68



Science Grade 5 Spanish

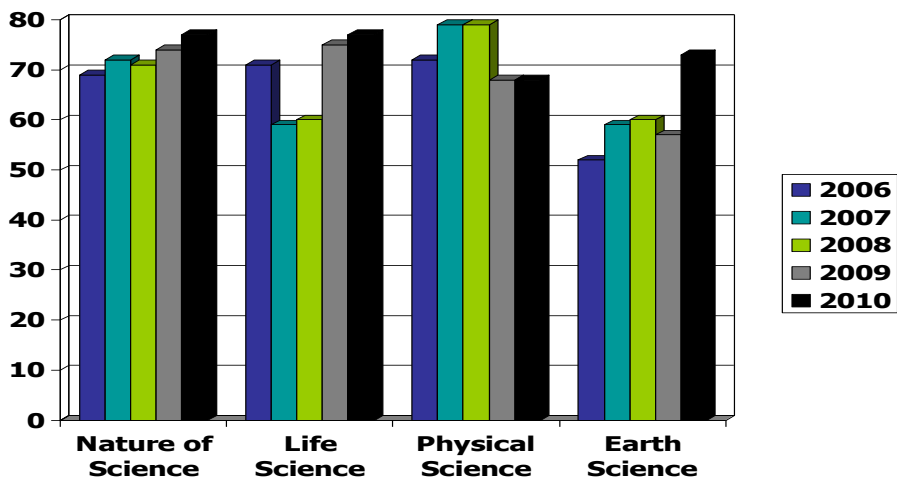


Copyright © Texas Education Agency 2010. All rights reserved.

71

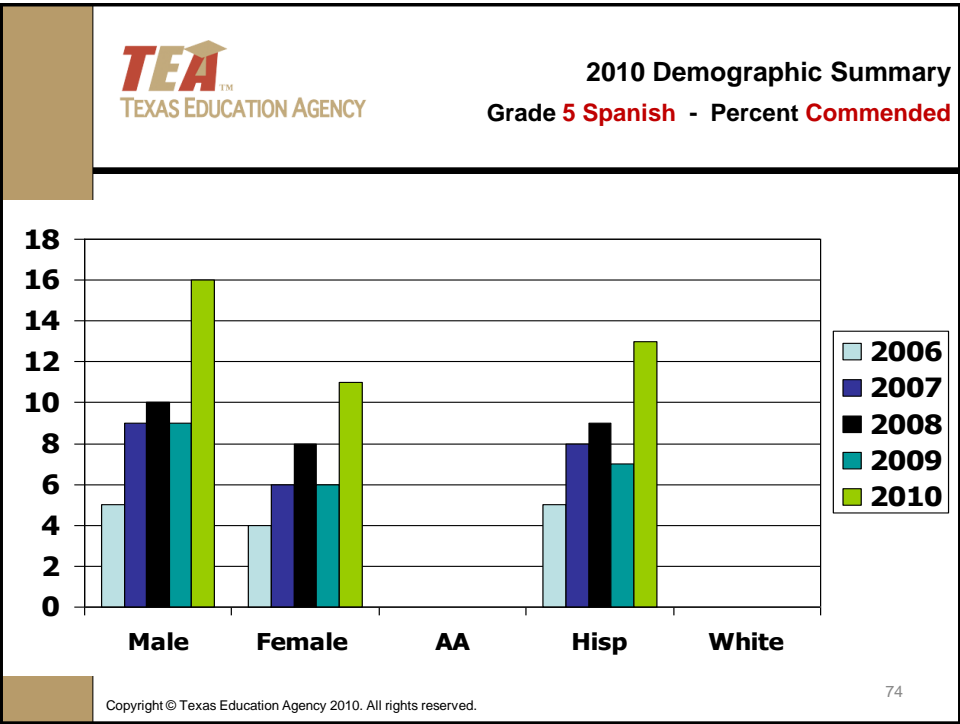
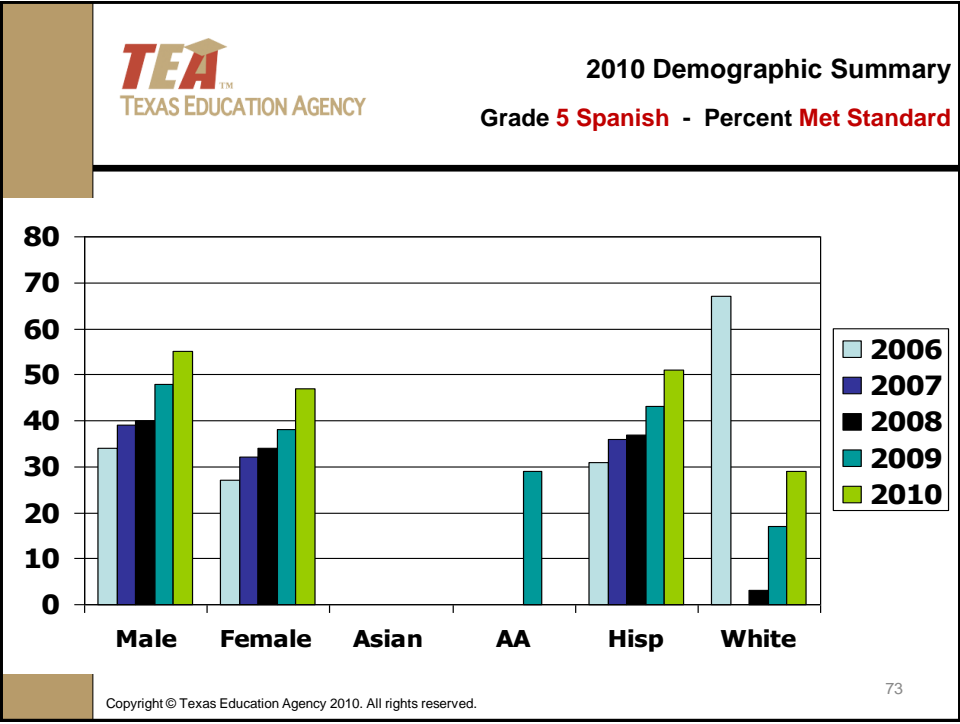
5th Grade Spanish TAKS Items - % Correct by Objectives

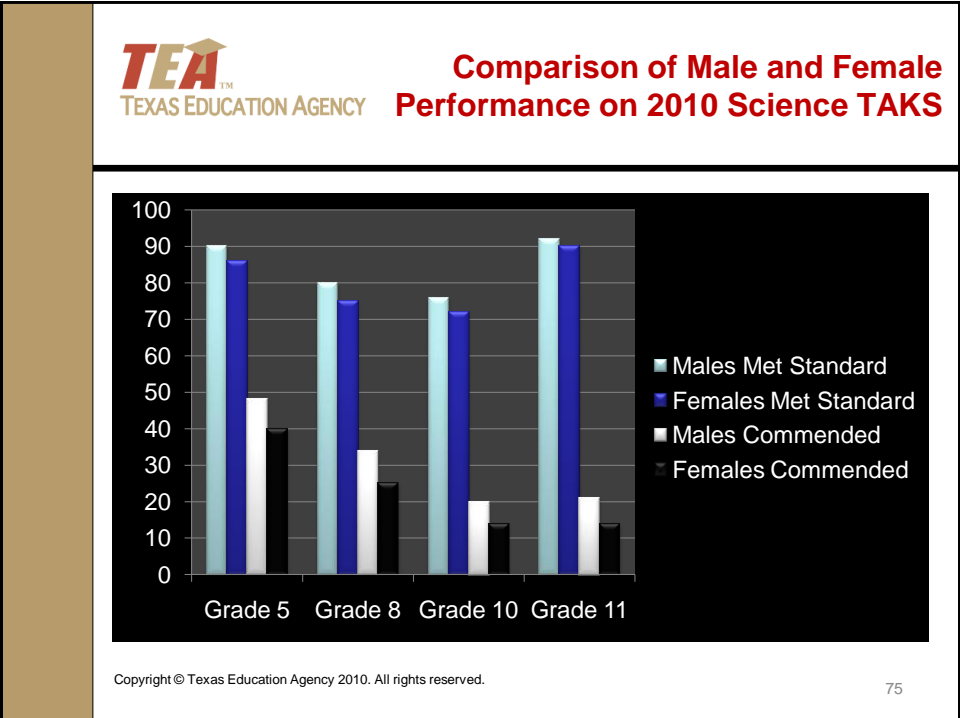
All Students: Spring 2010 (Preliminary)



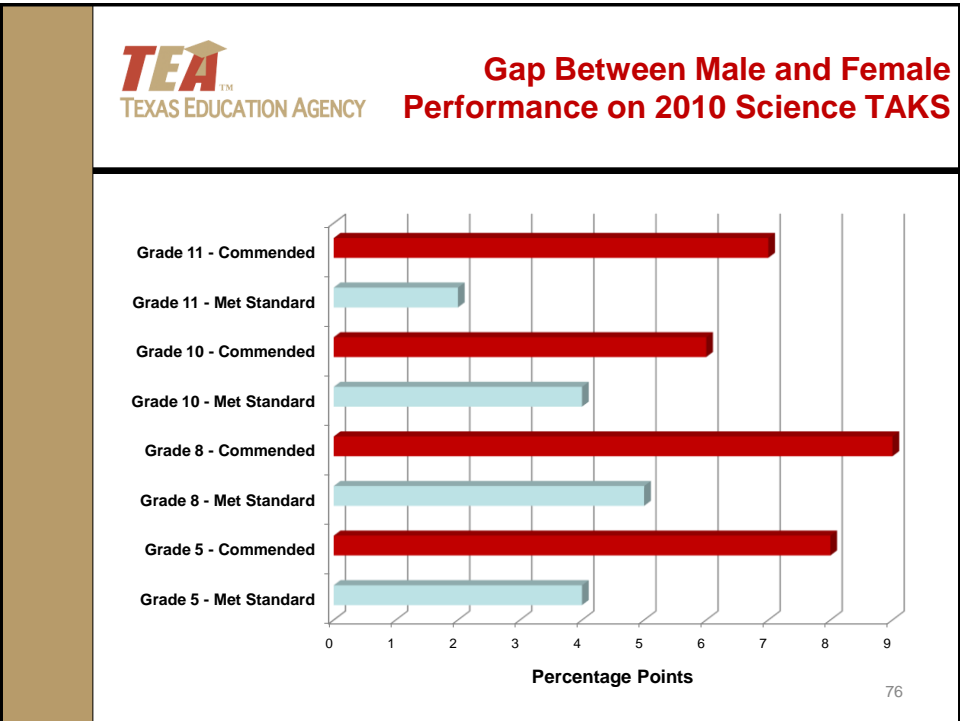
Copyright © Texas Education Agency 2010. All rights reserved.

72





75



76

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



Goals

*Things to
Accomplish
Together*

3 Goals for Texas Science Education

1. Support the **active engagement** of students in lab and field investigations.



Active Engagement

- A. Three types of investigations
- B. New time requirements and recommendations
- C. New lists of essential science tools and equipment



3 Goals for Texas Science Education

2. Reduce the **achievement gap** between female and male performance in science.



Copyright © Texas Education Agency 2010. All rights reserved.

81

Encouraging Girls in Math and Science

- A. Help students gain more self-confidence by explicitly teaching them that academic abilities are “expandable” and not fixed at birth.
- B. Provide students with informational feedback on their performance.
- C. Expose girls to female role models.
- D. Foster girls’ interest in math and science through activities that connect math and science to careers in a nonstereotypical way.
- E. Provide students with spatial skills training.

Halpern, D.F., Aronson, J., Reimer, N., Simpkins, S., Star, J.R., & Wentzel, K. (2007). *Encouraging Girls in Math and Science* [IES Practice Guide]. [Washington, DC: Institute of Education Sciences, U.S. Department of Education.](#)

Copyright © Texas Education Agency 2010. All rights reserved.

82



3 Goals for Texas Science Education

3. Promote a **deep understanding** of the new state standards (TEKS).



Copyright © Texas Education Agency 2010. All rights reserved.

83



Deep Understanding of Science TEKS

- A. New TEKS. New beginnings.
- B. Encourage grade level or subject study groups. Break out TEKS to uncover depth and complexity.
- C. Start fresh. Resist temptation to use your “old file cabinet.”



Copyright © Texas Education Agency 2010. All rights reserved.

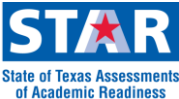

84



Other Agency Resources



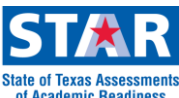

Student Assessment



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.

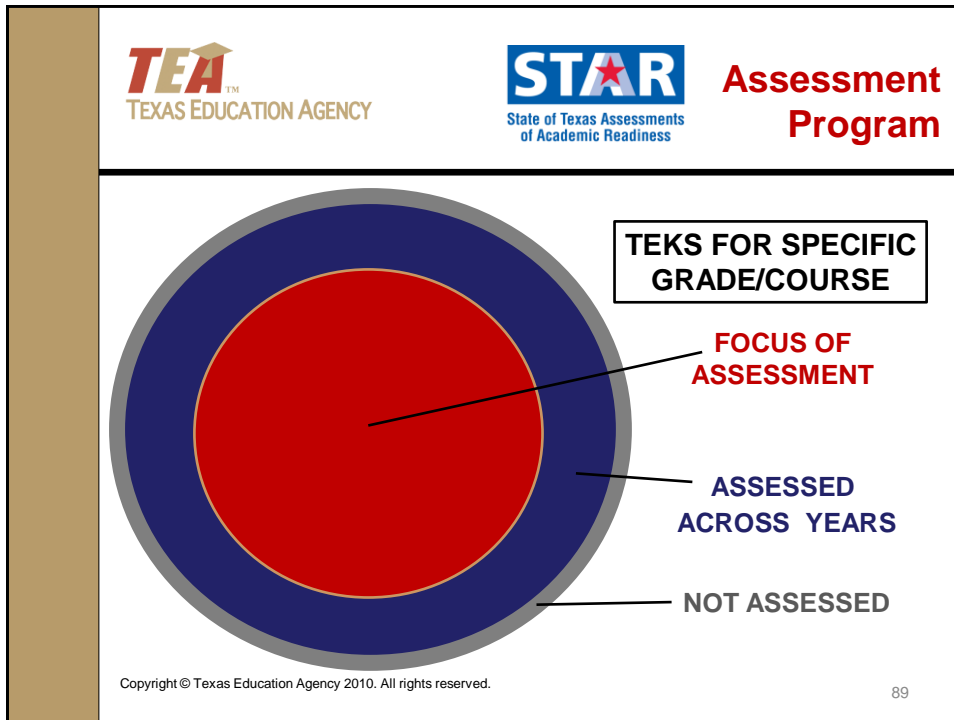
Copyright © Texas Education Agency 2010. All rights reserved. 87



Assessment Program

- Tests will focus on “fewer, clearer, deeper” content.
- New assessments will address the “core” TEKS annually, with other eligible “rotating” TEKS being assessed across years.

Copyright © Texas Education Agency 2010. All rights reserved. 88




TEA
TEXAS EDUCATION AGENCY

**New Content in
Science TEKS**

If the new skills and concepts are determined to be eligible to be assessed, then TEA will

- develop new items in 2010;
- field test new items in 2011; and
- test new items in 2012.

Copyright © Texas Education Agency 2010. All rights reserved. 90



End-of-Course Exams


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 12th grade re-testers

Copyright © Texas Education Agency 2010. All rights reserved.

91



For More Information on STAAR

- Visit the Student Assessment webpage
http://www.tea.state.tx.us/index3.aspx?id=3534&menu_id=793
- Join the Student Assessment listserv
<http://miller.tea.state.tx.us/list>

Copyright © Texas Education Agency 2010. All rights reserved.

92



Student Assessment Contact

Julie Guthrie

Director of Mathematics and Science Assessments

(512) 463-9536

science.test@tea.state.tx.us

Copyright © Texas Education Agency 2010. All rights reserved.

93



Questions About Educator Certification?

- **Live Chat**
 - Monday through Friday from 8 a.m. to 5 p.m.
 - Look for the grey chat box located on TEA's Educator Certification Web page at
<http://www.tea.state.tx.us/sbecchat.aspx>
- **Toll-free number (888) 863-5880**

Copyright © Texas Education Agency 2010. All rights reserved.

94

- 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.

Science TEKS Overview for Grades K-12

Examine the new 2010 science TEKS to improve overall science instruction. Explore models of vertical alignment that strengthen participants' knowledge of science concepts and processes, leading to student success on statewide assessments and post-secondary readiness.

Biology EOCS

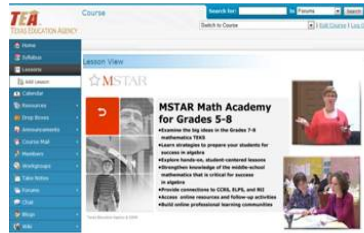
Experience lessons designed to facilitate implementation of the new Biology 2010 TEKS. During this 3 day professional development, engage in instructional strategies designed to prepare your students for success on the End of Course assessment. Participants will explore hands-on, student-centered lessons framed in the research-based 5E instructional model. These sessions provide connections to and strengthen participants' knowledge of College and Career Readiness Standards (CCRS), English Language Proficiency Standards (ELPS), and Response to Intervention (RtI).

Science Academies for Grades 5-8

Experience a total immersion in lessons designed to implement the new 2010 science TEKS for grades 5-8. During this 3 day professional development, participants will explore hands-on, student-centered lessons framed in the research-based 5E instructional model. These sessions provide connections to and strengthen participants' knowledge of College and Career Readiness Standards (CCRS), English Language Proficiency Standards (ELPS), and Response to Intervention (RtI).



Project Share



Middle-School Students in Texas: Algebra Ready (MSTAR) - An Introduction (5-8)

The Texas Response to Curriculum Focal Points (TXRCFP) was created from the Texas Essential Knowledge and Skills (TEKS) and identifies critical areas for mathematics instruction at each grade level. The Middle-School Students in Texas: Algebra Ready (MSTAR) training will inform and familiarize participants with the TXRCFP as a framework for improving overall mathematics instruction and achievement in order to decrease the percentage of students who need math intervention. In addition, the MSTAR training will utilize the TXRCFP framework to guide the design and implementation of Response to Intervention (RTI) strategies for those students in Grades 5-8 who are identified as needing math intervention.

Navigating the English Language Proficiency Standards (ELPS)

Explore ways to increase achievement for English language learners using the English Language Proficiency Standards (ELPS). The ELPS require specific focus on developing academic language in the content areas through reading, writing, speaking, and listening in grades K-12. In this session, participants will examine the ELPS and will practice writing language objectives using the four domains. The resources contain specific strategies that will enable teachers to incorporate the ELPS in their classrooms.



Copyright © Texas Education Agency 2010. All rights reserved.



Project Share

- Questions may be sent to the Project Share mailbox: projectshare@tea.state.tx.us
- TEA Contact is Kerry Ballast: kerry.ballast@tea.state.tx.us
- More information is available on the Project Share website: <http://tea.epsilon.com/Public/Home.asp>

Copyright © Texas Education Agency 2010. All rights reserved.

98



Join All Agency LISTSERV Groups at

<http://miller.tea.state.tx.us/list/>

Copyright © Texas Education Agency 2010. All rights reserved.

99



Curriculum Contact Information

Everly Broadway, Ed.D.
Director, Mathematics
Everly.Broadway@tea.state.tx.us

Kenn Heydrick, Ed.D.
Director, Science
Kenn.Heydrick@tea.state.tx.us

Lindsey Perry
Assistant Director, Mathematics
Lindsey.Perry@tea.state.tx.us

Irene Pickhardt
Assistant Director, Science
Irene.Pickhardt@tea.state.tx.us

Susie Coultrass
Director, Bilingual/ESL
Susie.Coultrass@tea.state.tx.us

Debbie Gonzales
Acting Director, Advanced
Academics/Gifted Education
Debbie.Gonzales@tea.state.tx.us

512-463-9581
curriculum@tea.state.tx.us

Copyright © Texas Education Agency 2010. All rights reserved.



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

Thank you.

We appreciate your service to children.



Copyright © Texas Education Agency 2010. All rights reserved.

101