New STAAR Mathematics Information

Implementation of New STAAR Mathematics

General STAAR Updates
NEW STAAR MATHEMATICS INFORMATION
New STAAR Mathematics

- New TEKS for mathematics were revised and adopted by the SBOE in April 2012.

- The SBOE specified that the new standards will be implemented in
  - K-8 in the 2014-2015 school year
  - High school in 2015-2016 school year

- The Student Assessment Division, in coordination with the Curriculum Division, convened advisory committees in October 2013 to make recommendations about the implementation of the new TEKS in the STAAR mathematics assessments.
New STAAR Mathematics

- The advisory committees discussed and made recommendations about
  - How to group the curriculum into reporting categories for the assessments
  - How the mathematical process standards should be incorporated into the assessments
  - Which student expectations could/could not be tested
  - Which student expectations are critical and should be identified as readiness standards
  - How the reporting categories should be emphasized in the test blueprint (number of questions)
  - What information should be included on the reference materials
  - What format should be used for griddable questions
  - What graph paper should be used, etc.
New STAAR Mathematics

- The changes to the STAAR mathematics assessments based on recommendations from the advisory committees can be found in multiple documents on the STAAR Mathematics Resources webpage (at the bottom): http://www.tea.state.tx.us/student.assessment/staar/math/.
  - New assessed curriculum documents
  - New blueprints
  - New reference materials
  - New griddable questions document
  - New process codes document
  - New calculator policy (policy document coming soon)
  - Same graph paper
New Assessed Curriculum in Grades 3-8

- The strands within the TEKS have been reorganized to create new reporting categories.

- There are now fewer reporting categories (5 → 4).
  1. Numerical Representations and Relationships*
  2. Computations and Algebraic Relationships
  3. Geometry and Measurement
  4. Data Analysis and Personal Financial Literacy

*Category 1 in grade 7 is Probability and Numerical Representations
New Assessed Curriculum in Grades 3-8

Example of Reorganization of Content Strands in Grade 4

<table>
<thead>
<tr>
<th>STRANDS IN NEW TEKS</th>
<th>NEW REPORTING CATEGORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number and operations</td>
<td>Numerical Representations and Relationships</td>
</tr>
<tr>
<td>Split out</td>
<td></td>
</tr>
<tr>
<td>Algebraic reasoning</td>
<td>Computations and Algebraic Relationships</td>
</tr>
<tr>
<td>Combined with operations</td>
<td></td>
</tr>
<tr>
<td>Geometry and measurement</td>
<td>Geometry and Measurement</td>
</tr>
<tr>
<td>Kept together</td>
<td></td>
</tr>
<tr>
<td>Data analysis</td>
<td>Data Analysis and Personal Financial Literacy</td>
</tr>
<tr>
<td>Combined together</td>
<td></td>
</tr>
<tr>
<td>Personal financial literacy</td>
<td></td>
</tr>
</tbody>
</table>
New Assessed Curriculum in Grades 3-8

- The new TEKS that are assessed are listed in the assessed curriculum documents.
  - In grade 3, STAAR tests 96% (44/46) of the content student expectations.
  - In grade 4, STAAR tests 89% (41/46) of the content student expectations.
  - In grade 5, STAAR tests 92% (36/39) of the content student expectations.
  - In grade 6, STAAR tests 98% (51/52) of the content student expectations.
  - In grade 7, STAAR tests 88% (38/43) of the content student expectations.
  - In grade 8, STAAR tests 89% (40/45) of the content student expectations.
New Assessed Curriculum in Grades 3-8

- The new TEKS have been identified as readiness standards or supporting standards.
  - In grade 3, 30% (13/44) of the assessed student expectations are readiness standards.
  - In grade 4, 32% (13/41) of the assessed student expectations are readiness standards.
  - In grade 5, 33% (12/36) of the assessed student expectations are readiness standards.
  - In grade 6, 31% (16/51) of the assessed student expectations are readiness standards.
  - In grade 7, 34% (13/38) of the assessed student expectations are readiness standards.
  - In grade 8, 33% (13/40) of the assessed student expectations are readiness standards.
New Assessed Curriculum in Grades 3-8

- The new assessed curriculum documents are posted on the STAAR Mathematics Resources webpage (at the bottom).
  - Grade 3 Mathematics Assessed Curriculum (posted 01/31/14)
  - Grade 4 Mathematics Assessed Curriculum (posted 01/31/14)
  - Grade 5 Mathematics Assessed Curriculum (posted 01/31/14)
  - Grade 6 Mathematics Assessed Curriculum (posted 01/31/14)
  - Grade 7 Mathematics Assessed Curriculum (posted 01/31/14)
  - Grade 8 Mathematics Assessed Curriculum (posted 01/31/14)
New Assessed Curriculum in High School

- The current reporting categories have been slightly reorganized to create a few new reporting categories.
- Algebra I still has 5 reporting categories; Algebra II now has 6 reporting categories instead of 7.
  1. Number and Algebraic Methods
  2. Describing and Graphing
     - Linear Functions (Algebra I)
     - Functions and Their Inverses (Algebra II)
  3. Writing and Solving
     - Linear Functions (Algebra I)
     - Systems (Algebra II)
  4. Quadratic Functions (Algebra I) and Square Root Functions (Algebra II)
  5. Exponential Functions (Algebra I) and Logarithmic Functions (Algebra II)
  6. Other Functions (Algebra II only)
New Assessed Curriculum in High School

Example of Reorganization of Algebra I

<table>
<thead>
<tr>
<th>CURRENT REPORTING CATEGORY</th>
<th>NEW REPORTING CATEGORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional Relationships</td>
<td>Number and Algebraic Methods</td>
</tr>
<tr>
<td>Properties and Attributes</td>
<td>Linear Functions</td>
</tr>
<tr>
<td>Linear Functions</td>
<td>Linear Functions</td>
</tr>
<tr>
<td>Linear Equations</td>
<td>Quadratic Functions</td>
</tr>
<tr>
<td>Quadratic and Other Functions</td>
<td>Exponential Functions</td>
</tr>
</tbody>
</table>

CURRENT REPORTING CATEGORY
- Functional Relationships: Broken out
- Properties and Attributes: Renamed
- Linear Functions: Reorganized
- Linear Equations: Reorganized
- Quadratic and Other Functions: Split into two
New Assessed Curriculum in High School

- The new TEKS that are assessed are listed in the assessed curriculum documents.
  - In Algebra I, STAAR tests 100% (49/49) of the content student expectations.
  - In Algebra II, STAAR tests 100% (48/48) of the content student expectations.

- The new TEKS have been identified as readiness standards or supporting standards.
  - In Algebra I, 33% (16/49) of the assessed student expectations are readiness standards.
  - In Algebra II, 33% (16/48) of the assessed student expectations are readiness standards.
  - [Algebra I Assessed Curriculum](posted 01/31/14)
  - [Algebra II Assessed Curriculum](posted 01/31/14)
New Test Blueprints

- The total number of test questions for each grade did not change.

- In addition, there are still 8 embedded field-test questions.

- The percent and number of questions for readiness standards versus supporting standards did not change.

- The reporting categories changed.

- The number of readiness standards and supporting standards in each reporting category changed.

- The number of questions in each reporting category changed.
New Test Blueprints

- The new test blueprints are posted on the STAAR Mathematics Resources webpage (at the bottom).
  - Grade 3 Mathematics Blueprint (posted 01/31/14)
  - Grade 4 Mathematics Blueprint (posted 01/31/14)
  - Grade 5 Mathematics Blueprint (posted 01/31/14)
  - Grade 6 Mathematics Blueprint (posted 01/31/14)
  - Grade 7 Mathematics Blueprint (posted 01/31/14)
  - Grade 8 Mathematics Blueprint (posted 01/31/14)
  - Algebra I Blueprint (posted 01/31/14)
  - Algebra II Blueprint (posted 01/31/14)
New Reference Materials

- Added some information
  - Added more conversions in grade 3
  - Added geometry formulas in grade 4
  - Added algebraic and financial information in grades 7 and 8
  - Added factoring, exponent, and quadratic information in Algebra I
  - Added exponent and quadratic information in Algebra II

- Deleted some information
  - Deleted rulers in grade 8
  - Deleted conversion in grade 8
  - Deleted geometry formulas in Algebra I and II
  - Deleted logarithmic and conic information in Algebra II

- Moved formulas to the front page in grades 4-8
New Reference Materials

- The new reference materials are posted on the STAAR Mathematics Resources webpage (at the bottom).
  - Grade 3 Mathematics Reference Materials (posted 02/03/14)
  - Grade 4 Mathematics Reference Materials (posted 02/03/14)
  - Grade 5 Mathematics Reference Materials (posted 02/03/14)
  - Grade 6 Mathematics Reference Materials (posted 02/03/14)
  - Grade 7 Mathematics Reference Materials (posted 02/03/14)
  - Grade 8 Mathematics Reference Materials (posted 02/03/14)
  - Algebra I Reference Materials (posted 02/03/14)
  - Algebra II Reference Materials (posted 02/03/14)
New Griddable Questions for Grades 3-5

- There will still be three griddable questions on each test.
- Added the hundreds place and a decimal point in grade 3.
- Added the tenths and hundredths place in grades 4 and 5.
- Griddable Questions for Mathematics (posted 05/29/14)
New Griddable Questions for Grades 6-8

- There will still be four griddable questions on each test.
- Added positive and negative sign in grades 6-8.
- Griddable Questions for Mathematics (posted 05/29/14)
Griddable Questions for High School

- There will still be five griddable questions on each test.
- There are no changes to the grid for Algebra I and II.
- Griddable Questions for Mathematics (posted 05/29/14)
New Method to Report Process Skills

- The mathematical process standards have been added to the TEKS for Algebra I and II.
- The seven mathematical process standards are identical and are included in each knowledge statement in the TEKS.
- Multiple process skills will be incorporated in STAAR math questions.
- New reports will be provided that are similar to the Student Expectations Tested reports.
- For each test question, the report will list
  - The content student expectation assessed
  - All the process skills incorporated
- [Assessing Process Skills](posted 05/29/14)
New Calculator Requirements

- In spring 2015, a graphing calculator is required for each student taking the STAAR grade 8 mathematics assessment.
  - Can be a traditional handheld graphing calculator
  - Can be a graphing calculator application

- A graphing calculator is still required for each student taking the STAAR Algebra I assessment.
  - A traditional handheld graphing calculator is required for both paper and online administrations.
Graph Paper

- There are no changes to the graph paper embedded in the front of the test booklets.
  - Grades 3-5 Graph Paper (posted 08/24/11)
  - Grades 6-8 Graph Paper (posted 08/24/11)
  - Algebra Graph Paper (posted 08/24/11)
IMPLEMENTATION OF NEW STAAR MATHEMATICS
Implementation Timeline for Grades 3-8

- The new TEKS for K-8 mathematics will be implemented this year, the 2014-2015 school year.

- The new STAAR 3-8 mathematics assessments will be implemented this year, the 2014-2015 school year.

- The spring 2015 tests for grades 3-8 will
  - Assess the new TEKS as indicated in the new assessed curriculum documents
  - Be based on the new test blueprints
  - Use the new reference materials and new grids
# Implementation Timeline for Grades 3-8

Example from STAAR Grade 7 Mathematics Blueprint

<table>
<thead>
<tr>
<th>Reporting Categories</th>
<th>Number of Standards</th>
<th>Number of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting Category 1: Probability and Numerical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Representations</td>
<td>Readiness Standards</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Supporting Standards</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>7</td>
</tr>
<tr>
<td>Reporting Category 2: Computations and Algebraic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relations</td>
<td>Readiness Standards</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Supporting Standards</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>12</td>
</tr>
<tr>
<td>Reporting Category 3: Geometry and Measurement</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Readiness Standards</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Supporting Standards</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9</td>
</tr>
<tr>
<td>Reporting Category 4: Data Analysis and Personal Financial Literacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Readiness Standards</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Supporting Standards</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9</td>
</tr>
<tr>
<td>Readiness Standards</td>
<td>Total Number of Standards</td>
<td>13</td>
</tr>
<tr>
<td>Supporting Standards</td>
<td>Total Number of Standards</td>
<td>25</td>
</tr>
<tr>
<td>Total Number of Questions on Test</td>
<td>50 Multiple Choice 4 Griddable 54 Total</td>
<td></td>
</tr>
</tbody>
</table>
Implementation Timeline for Grades 3-8

- After the spring 2015 administrations of STAAR grades 3-8 math, raw score information will be reported.

- Data from the spring 2015 administrations will be used to reset STAAR mathematics performance standards.

- Standard-setting meetings are planned for summer 2015.

- Once the performance standards are approved by the commissioner, they will be applied to the spring 2015 administrations and new reports and data files will be sent to school districts.
SSI for Spring 2015

- STAAR grades 5 and 8 mathematics will be administered at the end of March.

- Only raw score information will be provided after the March administration because performance standards are being reset.

- There will be no retest opportunities for grades 5 or 8 mathematics in May or June.

- Promotion/retention decisions for mathematics will need to be made based on other relevant academic information.

- SSI will still apply to STAAR grades 5 and 8 reading.
Implementation Timeline for High School

- The new TEKS for high school mathematics will be implemented next school year, the 2015-2016 school year.

- The revised STAAR Algebra I and Algebra II assessments will be implemented next school year, the 2015-2016 school year.

- The May 2016 Algebra I and Algebra II tests will
  - Assess the TEKS as indicated in the new assessed curriculum documents; however only the “overlap” curriculum will be available for use
  - Be based on the new test blueprints
  - Use the new reference materials
  - Use the adjusted performance standards, if applicable
Implementation Timeline for High School

- There are no changes to the STAAR Algebra I assessment for
  - December 2014
  - May 2015
  - July 2015

- The December 2015 STAAR Algebra I assessment will
  - Assess the TEKS as indicated in the current assessed curriculum documents; however only the “overlap” curriculum will be used
  - Be based on the current test blueprints
  - Use the current reference materials
Released Tests

- In August, TEA will release the first spring 2014 test form for the following assessments.
  - STAAR grades 3-8 and EOC assessments
  - STAAR Spanish grade 3-5 assessments
  - STAAR Modified grades 3-8 and EOC assessments (most test forms)

- Item-analysis reports for spring 2014 tests will also be released.
Standardized Oral Administration (SOA)

- SOA is online option for oral administration.

- It has a text-to-speech feature that allows students to hear test questions and answer choices read aloud.

- A student tutorial is available online.

- A few release test forms are available online.

- http://www.tea.state.tx.us/student.assessment/SOA/
Standardized Oral Administration (SOA)

- In spring 2015, SOA will be available for
  - STAAR grade 4 reading and/or mathematics
  - STAAR grade 5 science **NEW**
  - STAAR grade 6 reading and/or mathematics **NEW**
  - STAAR grade 7 reading and/or mathematics
  - STAAR grade 8 science and/or social studies
The USDE informed states that assessments based on modified standards for student served by special education cannot be used for accountability purposes after the 2013-2014 school year.

Therefore, STAAR Modified will no longer be administered.

In spring 2015, STAAR A, the accommodated version of STAAR, will be available for all grade/subjects and courses.
STAAR A

- STAAR A is an online version of STAAR with functionality similar to STAAR L.
  - Text-to-speech
  - Simplified language

- The embedded accommodations are intended to provide better access to the content being assessed.

- More information about STAAR A will be available in fall 2014.
  - Eligibility criteria
  - Tutorials
  - Sample items
STAAR Alternate

In 2013, House Bill 5 called for a redesign of STAAR Alternate that does not require teachers to prepare tasks or materials.

Therefore, a new standardized item-based version of STAAR Alternate will be available in spring 2015.

Groups of four scaffold questions will be presented together as a cluster to measure a targeted prerequisite skill.

The participation requirements for the redesigned STAAR Alternate are available on the STAAR Alternate webpage.
Questions???

► If you have questions,
  ► Look on the Student Assessment website http://www.tea.state.tx.us/student.assessment/
  ► Call the Student Assessment Division at 512-463-9836

► TEA Student Assessment Math Team
  ► Julie Guthrie, Director
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