ASDC

August 19, 2016

Thank you Arizona Educators!

Arizona Standards Review

In order to fulfill Superintendent Douglas' and Governor Ducey's charge to review Arizona's English Language Arts and Mathematics standards so that they are "vetted, and approved, and controlled by Arizona" and are "best for Arizona students", the Arizona Department of Education brought together diverse educators from across the state to review and revise the standards.

Arizona Education Involvement

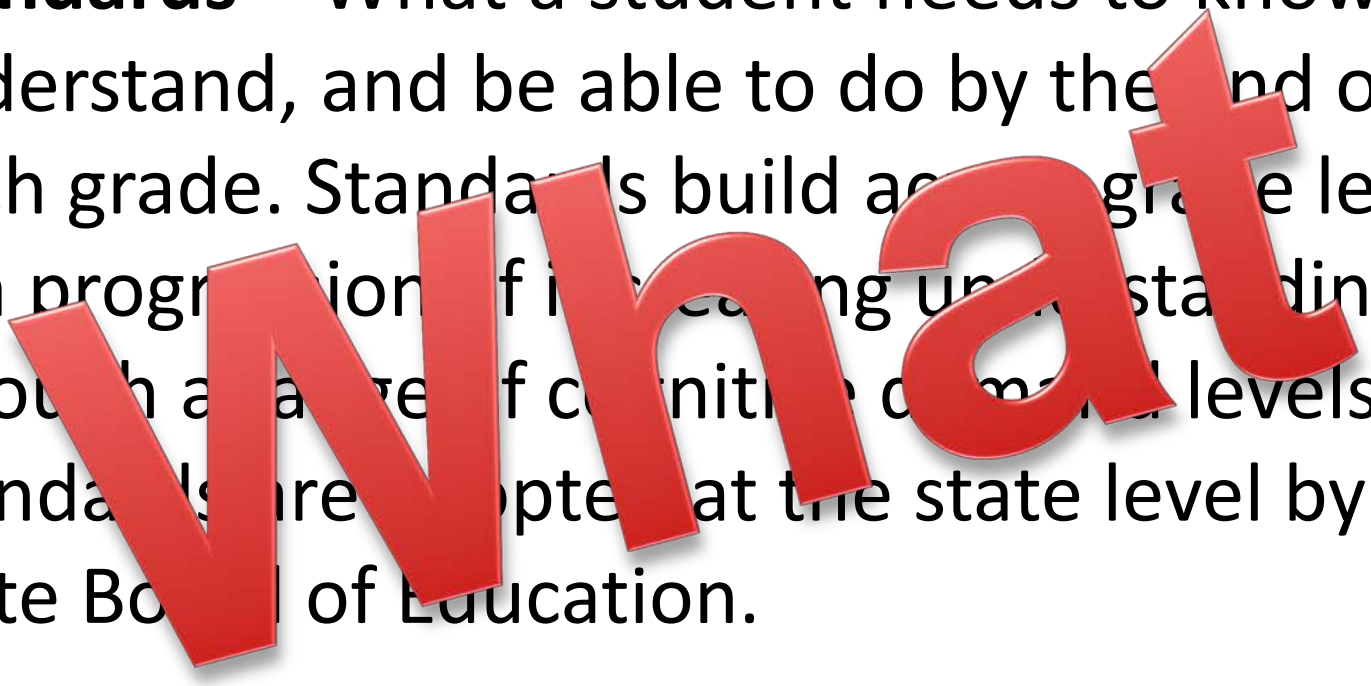
The English Language Arts and Mathematics Working Groups were made up Arizona educators from public, charter and institutes of higher education.

- Over 200 educators participated to date
- Over 6000 total work hours donated
- From 10 counties across Arizona
- Over 2,000 public comments reviewed
- Included teachers, administrators and professors

Arizona Department of Education

Standards, Curriculum, & Instruction

Standards – What a student needs to know, understand, and be able to do by the end of each grade. Standards build across grade levels in a progression of increasing understanding and through a range of cognitive demand levels. Standards are adopted at the state level by the State Board of Education.



Standards, Curriculum, & Instruction

Curriculum – The resources used for teaching and learning the standards. Curricula are adopted at a local level by districts and schools.

Instruction – The methods used by teachers to teach the students. Instructional techniques are employed by individual teachers in response to the needs of the students in their classes to help them progress through the curriculum in order to master the standards.

HOW

Arizona Department of Education

Arizona Department of Education

Standards versus Performance Objectives

Content Standards

Standards are what students need to know, understand, and be able to do **by** the end of each grade level. Standards build across grade levels in a progression of increasing understanding and through a range of cognitive demand levels.

Performance Objectives

Performance Objectives are **incremental steps** toward mastery of individual content standards. Performance Objectives are knowledge and skills that a student must demonstrate at each grade level. Performance objectives do not imply a progression of learning and, because they are discrete skills, reach a limited level of cognitive demand.

Arizona Department of Education

Key Points from the Executive Summaries

- The standards are not curriculum or instruction.

- The K-12 ELA progressions and the K-Algebra 2 Mathematics progression were reviewed and preserved.

Arizona Department of Education

Key Points from the ELA Executive Summary – Text Focus

Literary and Informational Texts

- The required/suggested percentages for the use of literary and informational texts in the ELA classroom have been removed from the Arizona 2016 Draft Standards, returning that determination to schools and teachers.

Text Complexity

- The 2016 draft standards call for teachers to evaluate text complexity based on both quantitative and qualitative measures, while preserving the expectation that students read progressively more challenging texts.
  - Quantitative – Computerized scores measuring sentence length, sentence variety, and vocabulary
  - Qualitative – A teacher's professional judgment of the grade-level appropriateness of the text structure, text density, genre, and content

Arizona Department of Education

Key Points from the ELA Executive Summary – Foundational Reading

Reading: Foundational Skills (K-5)

These standards were augmented to increase the focus on phonics and to ensure a more explicit progression of reading skills.

- For example, standards were added requiring students to recognize, then apply, then internalize a pattern for the six syllable types, which will help them when they encounter unfamiliar words and as they navigate increasingly more complex text.
- A table listing the six syllable types is included in the ELA Glossary (in addition to other resources).

Arizona Department of Education

Key Points from the ELA Executive Summary – Foundational Writing

Writing: Foundational Skills (K-3)

These **new** standards were built to ensure the effective teaching of writing by focusing on handwriting, sound-letter basics, and spelling.

- Designed to appropriately pair with the skills students are acquiring in the Reading: Foundational Skills standards.
- **Arizona will be the only state with a dedicated Foundational Writing strand.**
- An example of the progression of these standards takes the students from writing upper and lower case letters, to writing manuscript legibly, to writing manuscript fluently, to writing cursive.

Arizona Department of Education

Key Points from the Math Executive Summary - Examples deleted from the standards

All examples were deleted from the K-Algebra 2 draft mathematics standards.

The 2010 Arizona Mathematics standards contained examples that did not define the limit of a specific standard or provide clarification to what students need to know by the end of a grade or course. Some of the examples provided instructional guidance on "how" the standard should be taught. The purpose of a standards document is to provide clear expectations of what students should know, understand and be able to do by the end of the grade or course in mathematics.

Arizona Department of Education

Key Points from the Math Executive Summary - Fluency defined

Fluency was defined by the Mathematics Workgroup to encompass all grade levels K-Algebra 2.

Being fluent means that students are able to choose flexibly among methods and strategies to solve contextual and mathematical problems, they understand and are able to explain their approaches, and they are able to produce accurate answers efficiently.

Efficiency—carries out easily, keeps track of sub-problems, and makes use of intermediate results to solve the problem.

Accuracy—reliably produces the correct answer.

Flexibility—knows more than one approach, chooses a viable strategy, and uses one method to solve and another method to double-check.

Appropriately—knows when to apply a particular procedure.

It is critical to note that fluency is not always defined in a standard by the word "fluently" being present. Sometimes fluency is implied. Fluent is something we strive for students to achieve whenever we want them to be efficient, accurate, flexible, and appropriate in their problem solving and thinking.

Arizona Department of Education

Key Points from the Math Executive Summary - Fluency progressions were refined

It is important to note that some wording from the 2010 standards was preserved because the wording provided clear expectations and guidance in regards to grade level outcomes in regards to fluency.

- The phrase ***"by the end of 2nd grade, students will know from memory"*** was preserved in the 2nd grade standard on addition facts.
- The phrase ***"by the end of 3rd grade, students will know from memory"*** was preserved in the 3rd grade standard on multiplication and division facts.

Table 3- Fluency Progression Across Grade levels – Found in the Introduction.

Arizona Department of Education

Key Points from the Math Executive Summary - Time and Money

Money progression was added and time progression was refined in elementary standards.

- The Workgroup created a progression of standards related to money starting in first grade and culminating in fourth grade through application of understanding through problem solving.
- The Mathematics Workgroup refined the current time standards and clarified the progression from grades first through fourth.

Arizona Department of Education

Key Points from the Math Executive Summary - Algebra 1 and Algebra 2

The 2010 Mathematics Standards contained “dual standards” in Algebra 1 and Algebra 2. These “dual standards” were standards that occurred in both courses and the limits between the two standards were defined in a table at the back of the high school standards documents.

The Mathematics Workgroup and public comments felt it was essential that these “dual standards” were clarified and that unique standards were created for each course that clear limits between Algebra 1 and Algebra 2.

The 2016 Arizona DRAFT standards are formatted by high school course including Algebra 1, Geometry and Algebra 2.

Arizona Department of Education

Questions

Arizona Department of Education