Overview

The Utah standards are clearly organized and generally written in concise, jargon-free language. Unfortunately, many standards are vaguely worded and include unnecessary content more focused on skills and strategies than on essential content, thereby leaving teachers in the Beehive State without the guidance they need to drive rigorous curriculum and assessment development and instruction.

General Organization

The Utah ELA standards are divided into two groups: K-6 and 7-12. For the elementary grades, eight standards are presented, each of which is meant to represent “one of the essential areas of reading instruction,” such as: Oral Language, Concepts of Print, Vocabulary, Comprehension, and Writing. For each standard, the state includes “objectives” that are uniform across grade levels and that provide “more focused descriptions of what students should know and be able to do at each grade level.” For example, the following is a comprehension objective:

Recognize and use features of narrative and informational text (grades K-6)

Grade-specific indicators are provided for most objectives. (For some objectives, such as phonics and phonemic awareness or fluency, grade-level indicators are only provided at select grades.) In addition to the grade-specific indicators, the state includes approximately six overarching “intended learning outcomes” (ILOs) for each grade level. These ILOs describe the “skills and attitudes” that students should embody by the end of each grade level and are focused neither on ELA content nor on reading skills or strategies. For example:

1. Demonstrate a Positive Attitude Toward Language Arts Skills and Processes
   a. Develop confidence in the ability to access text.
   b. Enjoy the processes and outcomes of reading and writing.
   c. Develop confidence in the ability to express ideas, emotions, and experiences (grade 7)

The high school standards follow the same organizational structure, except that just three standards (Reading; Writing; and Inquiry, Research, Oral Presentation) are presented for each grade level.

Clarity and Specificity

The Utah ELA standards are clearly organized and presented and written in concise, easy-to-read language. Some are also clear and specific, such as:
Identify words with the same medial sounds in a series of words (e.g., long vowel sound: take, late, feet; short vowel sound: top, cat, pan; middle consonant sound: kitten, missing, lesson) (grade 1)

Identify external text features to enhance comprehension (i.e., headings, subheadings, pictures, captions, bolded words, graphs, charts, and tables of contents) (grade 7)

Unfortunately, many indicators are too vague to provide the guidance that teachers need to drive rigorous instruction, as in these examples:

- Edit for spelling of grade level-appropriate words (grade 3)
- Learn the meaning [of] and properly use a variety of grade level words (e.g., words from literature, social studies, science, math) (grades 3-6)

What’s more, many indicators are repeated nearly verbatim across grades, making it impossible to discern a clear progression of content or rigor. For example:

- Identify specific purpose(s) for listening (e.g., to gain information, to be entertained) (grades K-6)
- Visualize words while writing (grades 2-6)

At the high school level, the state insists that its ILOs be included as part of instruction. Unfortunately, these are generally vague, unmeasurable, and distracting statements that add little value.

The combination of repetitive and vaguely worded standards leave teachers in the Beehive State without a complete guide of what students should know and be able to do at each grade. As such, the standards earn two points out of three for Clarity and Specificity. (See Common Grading Metric, Appendix A.)

**Content and Rigor**

**Content Strengths**

Utah devotes an entire standard to phonological and phonemic awareness. While some indicators within that strand are repetitive, many are clear and outline the essential content and skills that students must master. For example:

- Identify words with the same medial sounds in a series of words (e.g., long vowel sound: take, late, feet; short vowel sound: top, cat, pan; middle consonant sound: kitten, missing, lesson) (grade 1)
- Blend syllables to make words (e.g., /ta/.../ble/, table) (grade 1)

Standards addressing vocabulary development are occasionally strong, particularly those that outline word origins and roots that students should learn.

Grade-specific indicators delineating expectations for the comprehension and analysis of literary and non-literary texts are included across grade levels, and those provided for grades 7-12 include particularly helpful genre-specific content. For example:

- Comprehend literature using elements of narrative and poetic text.
  a. Identify narrative plot structure (e.g., exposition, rising action, climax, falling action, resolution).
  b. Describe a character's traits as revealed by the narrator (e.g., thoughts, words, speech patterns, and actions).
  c. Distinguish topic from theme in literature.
  d. Identify descriptive details and imagery that establish setting.
  e. Identify figurative language (i.e., simile and metaphor) (grade 7)
- Analyze the use of simile, metaphor, pun, irony, symbolism, allusion and personification (grade 10)
- Identify an author's implicit and stated assumptions about a subject based on the evidence in the text (grade 12)
While some standards themselves are vague, the state provides indicators that often specify the quality and characteristics of writing that students should produce at each grade. For example:

- **Evaluate and revise for:**
  - Ideas: Anticipation of and answers to readers’ questions.
  - Organization: Inviting leads and satisfying conclusions.
  - Voice: A variety of voices for different audiences and purposes.
  - Word Choice: Carefully chosen vocabulary to achieve voice and purpose.
  - Sentence Fluency: Varied sentence structure (i.e., include complex and compound sentences) (grade 9)

In addition, the state includes some student writing samples and rubrics (produced by the Northwest Regional Education Laboratory) to help clarify expectations.

Standards addressing the research process are included for grades 5-12, as are indicators delineating expectations for speaking and listening, media, and formal oral presentations.

### Content Weaknesses

While some standards addressing vocabulary development (mentioned above) are strong, many fail to outline the essential content that students must master. Consider the following standard, which is repeated verbatim for six consecutive years:

- **Determine word meaning through word parts, definitions, and context clues (grades 7-12)**

By failing to more clearly define “word parts,” or to scaffold any content and skills across grade levels, this standard is too vague to be instructionally meaningful. Still other indicators display an inappropriate level of rigor. For example, the grades 7-12 standards include indicators that require students to distinguish between commonly confused words, including the following:

- **Distinguish between commonly confused words (i.e., affect/effect; between/among; either/neither; fewer/less; good/well; irregardless/regardless; waste/waist) (grade 10)**

By tenth grade, students should not be confusing good and well or either and neither. What’s more, while many people use “irregardless,” it is not actually a word and should not appear in this context.

Like many states, Utah fails to provide guidance about the number, quality, or complexity of texts that students should read in different grades. And while some editing standards include vague references to grammar that students should learn, these indicators fail to outline a clear and appropriate progression of content or rigor from grade to grade.

The standards include many indicators that veer into pedagogy and distract attention from the mastery of essential knowledge and skills. Take, for example, the following:

- **Use knowledge about spelling to predict the spelling of new words (grades K-6)**
  - **Use spelling generalities to assist spelling of new words (grades 1-6)**

Standards should clearly define student outcomes. These obscure student outcomes and promote instructional strategies that may actually contribute to the development of poor spelling skills.

Similarly, standard 7 (Comprehension) includes indicators focused on skills and strategies that do not necessarily improve comprehension and that distract attention from mastery of essential genre-specific content. For example:

- **Generate questions about text (e.g., factual, inferential, evaluative) (grades 3-6)**
  - **Form mental pictures to aid understanding of text (grades 2-6)**

While good readers may employ such strategies to aid their own comprehension, they are not outcomes—or true standards—in and of themselves.
Taken together, these shortcomings lead to the omission of more than 35 percent of the essential K-12 content, thus earning the standards four points out of seven for Content and Rigor. (See Common Grading Metric, Appendix A.)

**The Bottom Line**

With their grade of C, Utah’s ELA standards are mediocre. Those developed by the Common Core State Standards Initiative earn a solid B-plus. The CCSS ELA standards are superior to what the Beehive State has in place today.
Utah • Mathematics

DOCUMENTS REVIEWED


Core Curriculum, Secondary Core. 2007.
Accessed from: http://www.schools.utah.gov/curr/Math/Sec/core.htm

Overview

Utah’s standards are exceptionally well presented and easy to read and understand. They cover content with both depth and rigor, and provide clear guidance. There are a few weaknesses in whole-number arithmetic. The high school content is exceptionally rigorous.

General Organization

The K-6 material is organized by grade. Each grade has a different set of content strands that are subdivided into topics and then into “Indicators,” referred to below as “standards.” There is a short introduction to each grade and there are process standards.

After grade 6, the standards are organized by courses, from Math 7 to Pre-Calculus. The course organization is similar to that for K-6.

Clarity and Specificity

Utah’s standards are extremely well presented and easy to read. Students learn different things in different grades, so the variation of the strands and topics in each grade is appropriate and enables a coherent presentation of the standards across grade levels. For example, see the following broad strands which include some of the topics for arithmetic:

- Students will acquire number sense and perform simple operations with whole numbers (grade 1)
- Students will understand the base-ten numeration system, place value concepts, simple fractions and perform operations with whole numbers (grade 3)
- Students will expand number sense to include operations with rational numbers (grade 6)

The standards are well written and explicit, for example:

- Measure angles using a protractor or angle ruler (grade 4)
- Find the prime factorization of composite numbers to 100 (grade 6)

Examples are sometimes included to clarify intent:

- Identify attributes for classifying quadrilaterals (e.g., parallel sides for the parallelogram, right angles for the rectangle, equal sides and right angles for the square) (grade 3)
- Interpret division-with-remainder problems as they apply to the environment (e.g., If there are 53 people, how many vans are needed if each van holds 8 people?) (grade 5)
Some standards, however, are subject to interpretation:

- Create and extend growing patterns using objects, numbers, and tables (grade 3)

Utah’s standards are beautifully presented and generally both clear and specific. They receive three points out of three for Clarity and Specificity (see Common Grading Metric, Appendix A).

**Content and Rigor**

**Content Priorities**

More than 40 percent of the standards in appropriate grades are about the development of arithmetic. This indicates that arithmetic is a moderate priority.

**Content Strengths**

Instant recall of number facts is specified:

- Demonstrate quick recall of addition facts (up to 10 + 10) and related subtraction facts (grade 2)
- Demonstrate quick recall of basic multiplication and division facts (grade 4)

The number line is introduced early and included throughout the standards.

The development of fractions is generally strong. Common denominators are introduced explicitly:

- Compare fractions by finding a common denominator (grade 5)

The concepts of geometry are exceptionally well developed. The following fourth-grade sequence on area illustrates this:

- Recognize that a square that is 1 unit on a side is the standard unit for measuring area (grade 4)
- Develop the area formula for a rectangle and connect it with the area model for multiplication (grade 4)
- Develop and use the area formula for a right triangle by comparing with the formula for a rectangle (e.g., two of the same right triangles makes a rectangle) (grade 4)
- Develop, use, and justify the relationships among area formulas of triangles and parallelograms by decomposing and comparing with areas of right triangles and rectangles (grade 4)

In high school, the content is covered with a great deal of rigor. The courses are well sequenced and the content is developed coherently and sensibly.

Linear equations are covered with rare rigor, for example, by showing slope is well defined:

- Define the slope of a line as the ratio of the vertical change to the horizontal change between two points, and show that the slope is constant using similarity of right triangles (Pre-Algebra)

The rigor goes further into developing the foundations for linear equations:

- Recognize that all first order equations produce linear graphs (Pre-Algebra)

The topic of linear equations, in Algebra I, includes slope-intercept form, standard form, and the equation of a line given two points or the slope and a point on the line.

In Algebra II, the level of rigor is also high. Examples include:

- Add, subtract, multiply, and divide rational expressions and solve rational equations (Algebra II)
- Solve quadratic equations of a single variable over the set of complex numbers by factoring, completing the square, and using the quadratic formula (Algebra II)
- Write an equation of a parabola in the form $y=a(x-h)^2+k$ when given a graph or an equation (Algebra II)
Most trigonometry is covered, including the graphing of inverse trigonometric function and polar coordinates. High school geometry is, like algebra, exceptionally rigorous. For example:

- Prove congruency and similarity of triangles using postulates and theorems (Geometry)

Content Weaknesses

Though fluency and standard algorithms are mentioned, the algorithms for addition and subtraction are given the same status as other generalizable strategies:

- Demonstrate fluency with two-and three-digit addition and subtraction problems, using efficient, accurate, and generalizable strategies that include standard algorithms and mental arithmetic, and describe why the procedures work (grade 2)

The standards do not ask students to learn multiple ways to multiply and divide, nor do they specify standard procedures:

- Multiply up to a three-digit factor by a two-digit factor with fluency, using efficient procedures (grade 4)

Calculators are introduced unnecessarily early with:

- Use estimation, mental math, paper and pencil, and calculators to perform mathematical calculations and identify when to use each one appropriately (grade 4)

Although the vertex form is developed in Algebra II, it is not used to solve max/min problems.

The standards are generally very strong and cover most of the essential content with both depth and rigor. The high school standards are particularly strong. There are a few weaknesses in the development and prioritization of arithmetic. Some minor problems result in a Content and Rigor score of six points out of seven (see Common Grading Metric, Appendix A).

The Bottom Line

With some minor differences, Common Core and Utah both cover the essential content for a rigorous, K-12 mathematics program. Utah’s standards are briefly stated and usually clear, making them easier to read and follow than Common Core. In addition, the high school content is organized so that standards addressing specific topics, such as quadratic functions, are grouped together in a mathematically coherent way. The organization of the Common Core is more difficult to navigate, in part because standards dealing with related topics sometimes appear separately rather than together.

The chief weakness in Utah’s standards stems from the lack of specific content expectations in the development of arithmetic, and in the failure to make arithmetic a focus in the appropriate grades. Common Core provides admirable focus and explicitly requires standard methods and procedures, enhancements that would benefit Utah’s standards.