

AS OF JUNE 20, 2010,
THIS STATE HAD ADOPTED
THE COMMON CORE
STATE STANDARDS.

West Virginia • English Language Arts

DOCUMENTS REVIEWED

21st Century Reading and English Language Arts Content Standards and Objectives for West Virginia Schools. September 14, 2009.
Accessed from: <http://wvde.state.wv.us/policies/csos.html>

Overview

Despite a few bright spots, the lack of clarity and specificity in the West Virginia standards impacts not only the document's readability but also, ultimately, the content and rigor of the standards themselves. In far too many places, it is impossible to determine what students must do or produce to ensure mastery of essential content.



Clarity and Specificity: 1/3
Content and Rigor: 3/7
Total State Score: 4/10
(Common Core Grade: B+)

Standards for early reading are good, but for the most part, the standards gloss over important content such as the analysis of literary and non-literary texts, writing characteristics by genre, effective listening and speaking standards, and standards for multimedia analysis and production.

General Organization

West Virginia's standards are presented in three strands: Reading, Writing, and Listening; Speaking; and Media Literacy. For each strand, the state provides content standards that are "broad descriptions" of what students should know and be able to do and that are common to all grades. The content standards are then divided into grade-specific objectives.

In addition, West Virginia supplies grade-specific "performance descriptors," which are essentially rubrics describing "how students demonstrate achievement of content standards." These performance descriptors describe what a student should know and be able to do at five levels: distinguished, above mastery, mastery, partial mastery, and novice.

Clarity and Specificity

Some West Virginia objectives are clear and reasonably specific, such as:

Students will identify and practice basic elements of phonetic analysis:

- syllabication
- diphthongs
- digraphs
- variant vowel sounds such as r-controlled (grade 2)

More often, however, objectives are vaguely written, poorly organized, and conflate several concepts, thus making it difficult to discern what, precisely, students should know and be able to do. Consider, for example, this grade 4 reading objective:

Students will interpret and extend the ideas in literary and informational texts to summarize, determine story elements, skim and scan, determine cause and effect, compare and contrast, visualize, paraphrase, infer, sequence, determine fact and opinion, draw conclusions, analyze, characterize, and provide main idea and support details (grade 4)

This standard packs in too much content generally, as well as content for literary and informational texts together—thus obscuring the most essential content for each. Similarly confusing standards can be found throughout.

Other standards appear more narrowly focused, but in fact are vague. For example:

Students will use oral/visual information to research, explore, question and imagine a topic (grade 7)

This standard is typical in its failure to provide adequate guidance about what the state actually expects students to know and be able to do.

The problem of vague and confounding standards is exacerbated by their repetition across grades. Take, for example, the following:

Students will relate and analyze connections/themes among ideas in literary and informational texts, such as text-to-self, text-to-text, text-to-world connections, and recognize that global awareness promotes understanding, tolerance, and acceptance of ethnic, cultural, religious and personal differences (grades 7-8)

This standard makes it difficult to discern what the state expects of students, and the repetition of the standard across grade levels with no further guidance makes it impossible to scaffold skills or content from grade to grade.

Other standards simply defy comprehension:

Students will use denotation to understand meaning (grade 5)

Students will identify and understand literary techniques used to interpret literature (e.g., compare/contrast, symbolism) (grade 6)

Students will analyze and evaluate literary styles according to genre:

- author's use
- elements
- expectations (grade 11)

Taken together, these critical shortcomings leave teachers in the Mountain State with scant guidance as to the scope and sequence of important content across the grades, and therefore earn the standards one point out of three for Clarity and Specificity. (See *Common Grading Metric*, Appendix A.)

Content and Rigor

Content Strengths

West Virginia's standards for early reading are better than other areas. Objectives here delineate specific expectations for phonemic awareness, phonics, fluency, and comprehension. In first grade, for example:

Students will use basic elements of phonetic analysis to decode unknown words:

- sound-symbol relationships
- beginning/ending consonants
- short and long vowel sounds
- blends
- digraphs
- diphthongs (grade 1)

While these standards could be strengthened by including examples to clarify expectations, nearly all of the essential content and skills are addressed.

Although the state does not provide a strand devoted exclusively to research, the Writing standards address some important research content. For example, in grade 7, students must:

Understand how to summarize and use direct quotations in writing, recognize copyright laws/issues, ethical acquisition and use of digital information in citing sources for research/report (grade 7)

Document sources of information using a provided bibliographic format (grade 7)

While the expectations do not specify all of the characteristics of final research products, the essential elements of the research process are well defined.

In addition, while the Reading strand is problematic for many reasons (discussed below), occasional standards can be found there that focus on essential content, such as:

Students will read, compare and interpret types of poetry (e.g., narrative poems, ballads, lyric, epic) and interpret elements (e.g., lines, stanzas, rhythm, meter or rhyme) to derive meaning of poetry (grade 8)

Content Weaknesses

Vocabulary standards in West Virginia are cursory. Analysis of word parts is not mentioned until grade 5. Until then, expectations are simplistic, such as “apply explicitly taught vocabulary words in oral and written experiences” or “identify and practice appropriate sight words and content vocabulary.”

The treatment of literary and non-literary texts is spotty. While some objectives make a perfunctory nod to some of the genre-specific content that students must learn, more often than not the standards include sweeping skills-driven standards that conflate the two text types. For example:

Students will use literary and informational texts to summarize, determine story elements, determine cause and effect, compare and contrast, paraphrase, infer, predict, sequence, draw conclusions, describe characters, and provide main idea and support details (grade 3)

Standards for the analysis of informational text are especially thin throughout.

In places where the standards do attempt to be specific to text type—literary or non-literary—they nonetheless remain hard to discern, as in this eighth-grade literature standard:

Students will identify literary technique used to interpret literature:

- irony
- satire
- persuasive language
- analogies (grade 8)

It is not clear why these “techniques” are presented together, or what the student outcome is, even though specific “literary techniques” are mentioned.

The progression of rigor in the Reading and Writing strands is frequently inadequate. For example, the first standard that addresses persuasive text does not appear until tenth grade:

Students will critique persuasive language and techniques as found in literary and informational texts and media (grade 10)

Students need a systematic approach to analyzing various types of texts from the early grades onward, and these standards, unfortunately, do not provide it.

While the standards include occasional references to American and even West Virginian literature, these are too broadly worded to be useful:

Students will increase the amount of independent reading with emphasis on classic American, British and World Literature, and informational texts (grade 11)

The state missed an important opportunity to ensure that all students would be required to explore America’s literary heritage in the classroom.

West Virginia’s Writing standards are long, disorganized lists that focus primarily on process and address a mish-mash of writing content. For example:

Students will create an effective response to a task in form, content and language (e.g., letters, poems, brief reports or descriptions, instructions, journals) (grade 4)

Students will use reference skills to identify words (grade 4)

Students will draft analogies, illustrations, examples, or anecdotes to respond to an oral, visual, or written prompt (grade 5)

Unfortunately, it’s nearly impossible to discern in these standards what the state expects in terms of student outcomes.

Objectives outlined in the Listening, Speaking, and Media strand are generally devoid of content, such as:

Students will compare and contrast personal experiences to oral/visual information (grade 5)

Students will create and present an age-appropriate media product that demonstrates format, purpose, and audience (grades 5-8)

Similarly confusing standards plague this strand across grade levels.

While West Virginia’s standards touch on some essential content, the objectives rarely cover that content with depth, rigor, or clarity. The combination of unnecessary and confusing standards, coupled with the core content that is missing entirely, earn the standards three points out of seven for Content and Rigor. (See *Common Grading Metric*, Appendix A.)

The Bottom Line

With their grade of D, West Virginia’s ELA standards are among the worst in the country, while those developed by the Common Core State Standards Initiative earn a solid B-plus. The CCSS ELA standards are significantly superior to what the Mountain State has in place today.

West Virginia • Mathematics

DOCUMENTS REVIEWED

21st Century Mathematics Content Standards and Objectives for West Virginia Schools. August 20, 2009.
Accessed from: <http://wvde.state.wv.us/policies/p2520.2.pdf>

Overview

West Virginia's standards are well presented and easy to read. In the early grades, however, arithmetic is not given sufficient emphasis and its development has some weaknesses. The high school content is generally well covered and includes much STEM-ready material.



Clarity and Specificity: 2/3
Content and Rigor: 5/7
Total State Score: 7/10
(Common Core Grade: A-)

General Organization

The K-8 grade-specific standards are organized into five content strands such as Measurement and Geometry. The high school standards employ a similar structure though they are presented by course rather than grade and use different content strands. In addition, each grade and course has an introduction describing the material to be covered.

Clarity and Specificity

West Virginia's standards are well organized and easy to read. Many are straightforward, such as:

- Determine the formula the area [sic] of a rectangle and explain reasoning through modeling (grade 3)
- Draw and identify parts of a circle: center point, diameter, and radius (grade 4)

Other standards, however, are too broadly stated to interpret:

- Explain how one variable produces a change in another variable (grade 2)
- Analyze real-world data represented on a graph using grade-appropriate questions (grade 3)

Such nebulous standards fail to make clear what students are expected to know or what kinds of problems they should be able to solve. What's more, the second-grade standard above is both inappropriate and too broad. (It would be a challenging high school standard!) Further, as demonstrated by the third-grade standard above, the standards sometimes make reference to "grade-appropriate" content without further specification.

Other standards are poorly phrased:

- Determine and apply greatest common factor and lowest common multiple to write equivalent fractions and to real-world problem situations [sic] (grade 5)
- Add and subtract polynomials limited to two variables and positive exponents (grade 8)

The first of these contains obvious grammatical issues. For the second, there are no negative exponents in polynomials, so the restriction to positive exponents is confusing.

While the clear and specific standards generally outnumber those that are vague or poorly written, they "do not quite provide a complete guide to users" (see the *Common Grading Metric*, see Appendix A), and receive a Clarity and Specificity score of two points out of three.

Content and Rigor

Content Priorities

West Virginia does not provide clear guidance as to the relative importance of the content. Short grade-level introductions mention areas of emphasis, but they appear more to synopsise the content for each grade rather than clearly state what material is most important. Arithmetic is only barely prioritized, with less than 40 percent of the standards in appropriate grades dealing with its development.

Content Strengths

The structure of arithmetic is well covered. Quick recall of the number facts is specifically required:

- Demonstrate quick recall of basic addition facts with sums to 18 and corresponding subtraction facts (grade 2)
- Quick recall of basic multiplication facts and corresponding division facts [sic] (grade 4)

Despite weaknesses in development, which are discussed below, the capstone standard for whole-number arithmetic is clear and requires fluency:

- Demonstrate fluency in addition, subtraction, multiplication and division of whole numbers (grade 5)

The number line is introduced early and used often.

In high school, much of the coverage is strong. High school geometry requires proofs and specifies that they should have a foundation in postulates:

- Construct formal and informal proofs by applying definitions, theorems, and postulates related to such topics as
 - complementary,
 - supplementary,
 - vertical angles,
 - angles formed by perpendicular lines, and
 - justify the steps (Geometry)

There is some strong coverage of quadratic equations. The following standard, while too dense and compact, includes strong analytic content:

- Solve quadratic equations over the set of complex numbers: apply the techniques of factoring, completing the square, and the quadratic formula; use the discriminant to determine the number and nature of the roots; identify the maxima and minima; use words, graphs, tables, and equations to generate and analyze solutions to practical problems (Algebra II)

Content Weaknesses

The development of arithmetic shows some weaknesses. The capstone standard for whole-number arithmetic quoted above requires fluency, but the standards fail to adequately develop the standard algorithms.

An example is the development of multiplication. The standard algorithm is mentioned, but it appears along with a “variety of strategies,” which may undermine students’ mastery of this fundamental skill:

- Solve multi-digit whole-number multiplication problems using a variety of strategies, including the standard algorithm, justify methods used (grade 4)

In the continued development of arithmetic, standard procedures and fluency are omitted, as are common denominators.

Technology, while not overly intrusive within the standards statements themselves, is inappropriately emphasized in the peripheral material. For example, it appears in *Kindergarten*, in the very first sentence of the introduction:

- Kindergarten objectives emphasize the use of manipulatives, concrete materials, and appropriate technology so that students explore and develop ideas fundamental to the study of mathematics...(Kindergarten)

The use of technology tends not to interfere with the development of arithmetic, but it is still included in dubious ways, as in:

Kindergarten objectives emphasize the use of manipulatives, concrete materials, and appropriate technology so that students explore and develop ideas fundamental to the study of mathematics...(Kindergarten)

High school content is generally strong, but a few details are missing, including the standard form for linear equations and a proof of the Pythagorean Theorem.

West Virginia's standards cover much of the essential content, particularly in high school. In K-8, there are some weaknesses in the prioritization and development of arithmetic. These shortcomings result in a Content and Rigor score of five points out of seven. (See *Common Grading Metric*, Appendix A.)

The Bottom Line

With their grade of B, West Virginia's mathematics standards are decent, while those developed by the Common Core State Standards Initiative earn an impressive A-minus. The CCSS math standards are superior to what the Mountain State has in place today.