Virginia • English Language Arts

DOCUMENTS REVIEWED

English Standards of Learning for Virginia Public Schools. 2010.
Accessed from: http://www.doe.virginia.gov/testing/sol/standards_docs/english/review.shtml

Overview

Virginia's standards are straightforward and, despite a few weaknesses, provide solid guidance for a strong K-12 ELA program.

GRADE **B+**

Clarity and Specificity:	2/3
Content and Rigor:	6/7
Total State Score:	**8/10**

(*Common Core Grade: B+*)

General Organization

Virginia's K-3 standards are divided into three strands: Oral Language; Reading; and Writing. The 4-12 standards are divided into four strands: Communication: Speaking, Listening, and Media Literacy; Reading; Writing; and Research. Each strand is then divided into grade-specific standards. Finally, the state introduces each grade with an overview that describes the major concepts and skills to be addressed during that year of school.

Clarity and Specificity

The Virginia standards are mostly simple, straightforward, and easy to understand. They generally contain clear and specific language, as in:

> Compare and contrast the characteristics of biographies and autobiographies (grade 3)
>
> Use dictionaries, thesauruses, and glossaries to determine definition, pronunciation, etymology, spelling, and usage of words (grade 8)

In a number of places, however, they are repetitive, vague, or both. For example, the following fiction standard is repeated verbatim in grades 4, 5, 7, and 8:

> Identify cause and effect relationships (grades 4-5, 7-8)

Inexplicably, the sixth-grade version of this standard is somewhat more specific and requires students to:

> Describe cause and effect relationships and their impact on plot (grade 6)

A few other standards are similarly vague and repetitive, such as the following, which is repeated verbatim for grades 3-10:

> Use reading strategies to monitor comprehension throughout the reading process (grades 3-10)

In addition to being repetitive, this standard is unmeasurable.

These problematic standards are not the norm, but enough of them exist to take a point away from Virginia for Clarity and Specificity, earning Old Dominion two points out of three. (See *Common Grading Metric*, Appendix A.)

Content and Rigor

Content Strengths

Virginia's standards for early reading are strong, addressing phonemic awareness, phonics, fluency, and comprehension. As noted above, Virginia has a standard that addresses the use of reading strategies "to monitor comprehension," which veers into instructional/assessment territory, but such expectations are not emphasized.

The vocabulary standards are systematic and focus on word analysis throughout the grades, despite occasional references to relying on context clues to determine word meaning.

Standards for the study of literary and non-literary texts are thorough. Both are addressed specifically, and expectations progress in rigor throughout the grades. For example, as early as Kindergarten, students are asked to "discuss characters, setting, and events" and "identify text features specific to the topic, such as titles, headings, and pictures." By grade 5, they must "describe the characteristics of free verse, rhymed, and patterned poetry" and "identify cause and effect relationships following transition words signaling the pattern." In grade 9, students must "compare and contrast the use of rhyme, rhythm, sound, imagery, and other literary devices to convey a message and elicit the reader's emotion" and "identify a position/argument to be confirmed, disproved, or modified."

When Virginia students reach grade 11, they are required to study American literature:

> The student will read, comprehend, and analyze relationships among American literature, history, and culture.
>
> a. Describe contributions of different cultures to the development of American literature
>
> b. Compare and contrast the development of American literature in its historical context
>
> c. Discuss American literature as it reflects traditional and contemporary themes, motifs, universal characters, and genres
>
> d. Analyze the social or cultural function of American literature…
>
> i. Read and analyze a variety of American dramatic selections
>
> j. Analyze the use of literary elements and dramatic conventions including verbal, situational and dramatic irony used in American literature…(grade 11)

Although it would be preferable to incorporate American literature in other grades, too, Virginia is to be praised for including these requirements at least once. (British literature is also specifically addressed in grade 12.)

Standards for listening and speaking are commendable. They are straightforward in addressing active listening, effective speaking, participating in group discussions, and completing tasks as a group. The standards for oral presentations are detailed and span all grades.

In writing, Virginia presents somewhat repetitive but detailed expectations describing the characteristics of good writing that are common to all genres, and they progress in rigor from grade to grade. Students must write in cursive and write paragraphs in grade 3. The standards for English language conventions are included in the Writing strand and, while they are focused on editing, they comprise a thorough and straightforward set of important grammar, usage, and mechanics expectations.

Research is included as a separate strand beginning in fourth grade, though research skills appear as early as first grade. For example, first-graders are asked to "use simple reference materials." The expectations build through grade 8 and, in high school, the Research strand details expectations for the research process and for products, including "documented research papers" in twelfth grade.

Starting in grade 4, Virginia's standards also include a welcome emphasis on "media literacy" (within the Communication strand). In grade 4, students must "differentiate between auditory, visual, and written media messages." By grade 12, they "evaluate sources including advertisements, editorials, blogs, Web sites, and other media for relationships between intent, factual content, and opinion." The use of media is also expected in oral presentations.

Content Weaknesses

Although the standards for study of literary and non-literary texts are mostly thorough (as discussed above), some essential content is missing. For example, in a number of places, the standards identify a category of important content without specifying important details, as shown below:

> Compare and contrast author's use of literary elements within a variety of genres (grade 9)
>
> Use text structures to aid comprehension (grade 7)

Actually specifying the genres, elements, and structures to be addressed would provide valuable guidance to teachers and curriculum developers.

Virginia's standards for writing, while fairly solid with respect to the qualities of good writing in general, do not systematically delineate the characteristics of good writing by genre throughout the grades. Virginia laudably attempts to prioritize writing by type at certain grades (e.g., "exposition and analysis" in grade 10, "persuasion" in grade 11), yet the standards outlined at those grades do not identify the distinctive characteristics of each genre, such as addressing counterclaims or employing rhetorical strategies in persuasive writing. Without doing so, it is difficult to hold students accountable for the production of any genres. Samples of acceptable student writing would also help illuminate expectations.

Taken together, these shortcomings leave more than 5 percent of the essential K-12 content missing, thus earning the standards six points out of seven for Content and Rigor. (See *Common Grading Metric*, Appendix A.)

The Bottom Line

Virginia's standards are more clearly organized and easier to follow than the Common Core, in part because essential content is grouped more logically, so that standards addressing inextricably linked characteristics, such as themes in literary texts, can be found together rather than spread across strands. In addition, Virginia's standards for the study of American literature are more detailed.

On the other hand, Common Core more thoroughly addresses the genre-specific content that students must master to become proficient writers, and includes samples of student writing to clarify grade- and genre-specific writing expectations. Such enhancements would further strengthen Virginia's standards.

Virginia • Mathematics

DOCUMENTS REVIEWED

Mathematics Standards of Learning for Virginia Public Schools. February 2009.
Accessed from: http://www.doe.virginia.gov/testing/sol/standards_docs/mathematics/review.shtml

Overview

Virginia's standards are well presented and easy to read. In K-8, arithmetic is moderately prioritized, but there are some weaknesses in its development. The high school content is also generally well covered and includes much STEM-ready material.

GRADE **C**

Clarity and Specificity:	2/3
Content and Rigor:	4/7
Total State Score:	**6/10**

(*Common Core Grade: A-*)

General Organization

The K-8 standards are organized into six content strands such as Measurement and Geometry. The high school standards are organized by course. An introduction describes the material to be covered for each grade and course.

Clarity and Specificity

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

> The student will determine by counting the value of a collection of bills and coins whose total value is $5.00 or less, compare the value of the coins or bills, and make change (grade 3)
>
> The student will classify angles as right, acute, obtuse, or straight (grade 5)

By contrast, other standards are not specific enough to know what kinds of problems students should be able to solve, such as:

> The student will identify and describe congruent and noncongruent plane figures (grade 3)
>
> The student will describe the relationship found in a number pattern and express the relationship (grade 5)
>
> The student will describe orally and in writing the relationships between the subsets of the real number system (grade 8)

While Virginia's standards are generally clear, specific, and easy to read, taken together, the prevalence of vague standards leaves the reader without clear guidance needed and earns the state two points out of three for Clarity and Specificity. (See *Common Grading Metric,* Appendix A.)

Content and Rigor

Content Priorities

Short grade-specific introductions mention areas of emphasis, but these appear more to synopsize the content for each grade rather than clearly state what material is most important. Implicitly, the standards only slightly prioritize arithmetic—less than 40 percent of the standards in appropriate grades are about its development.

Content Strengths

The structure of arithmetic is well covered, and there are some clear arithmetic expectations.

The high school standards cover some essential content well. For example, Virginia approaches geometry in an interesting way by both doing things in the coordinate plane and using deductive geometry, starting with axioms:

> The student will use the relationships between angles formed by two lines cut by a transversal to
> a) determine whether two lines are parallel;
> b) verify the parallelism, using algebraic and coordinate methods as well as deductive proofs (Geometry)

Geometric constructions are covered thoroughly, for example:

> The student will construct and justify the constructions of
> a) a line segment congruent to a given line segment;
> b) the perpendicular bisector of a line segment;
> c) a perpendicular to a given line from a point not on the line;
> d) a perpendicular to a given line at a given point on the line;
> e) the bisector of a given angle;
> f) an angle congruent to a given angle; and
> g) a line parallel to a given line through a point not on the given line (Geometry)

The high school standards also include important algebraic skills, such as:

> Adding, subtracting, multiplying, and dividing polynomials (Algebra I)
> Add, subtract, multiply, divide, and simplify rational algebraic expressions (Algebra II)

Much STEM-ready content is also included. Trigonometry is covered in some detail, including the graphing of the inverse trigonometric functions.

Content Weaknesses

The coverage of whole-number arithmetic is straightforward but inadequate, in part because automaticity with the basic number facts is not required.

In the continued development of arithmetic, neither standard procedures nor fluency are specified, as is seen in this rather crowded capstone standard for whole-number arithmetic:

> The student will
> a) estimate sums, differences, products, and quotients of whole numbers;
> b) add, subtract, and multiply whole numbers;
> c) divide whole numbers, finding quotients with and without remainders; and
> d) solve single-step and multistep addition, subtraction, and multiplication problems with whole numbers (grade 4)

In the case of adding and subtracting fractions, standard procedures and fluency are not required, nor are common denominators developed. Moreover, denominators are seemingly limited except for "practical problems":

> Add and subtract fractions having like and unlike denominators that are limited to 2, 3, 4, 5, 6, 8, 10, and 12 (grade 4)
> Solve single-step and multistep practical problems involving addition and subtraction with fractions and with decimals (grade 4)

Area is not well covered. It is always done in general terms, such as:

> Find perimeter, area, and volume in standard units of measure (grade 5)

Formulas for the areas of rectangles and triangles are not specifically included.

The high school standards are generally strong, except for quadratics. For example, consider the quadratic part of a standard:

> The student will solve, algebraically and graphically,...
>
> b) quadratic equations over the set of complex numbers...
>
> Graphing calculators will be used for solving and for confirming the algebraic solutions (Algebra II)

Completing the square, factoring, and the quadratic formula are omitted. This standard makes the incorrect suggestion that quadratics can be solved over the complex number graphically. Graphing calculators are mentioned too frequently in high school, and it is unclear how much students should be able to do without one.

Taken together, these "shortcomings" result in a Content and Rigor score of four points out of seven. (See *Common Grading Metric*, Appendix A.)

The Bottom Line

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