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

Maryland • English Language Arts

DOCUMENTS REVIEWED

Maryland Voluntary State Curriculum: Reading/English Language Arts. November 15, 2007.
Accessed from: http://mdk12.org/instruction/curriculum/reading/index.html

Overview

The Maryland ELA standards are a mixed bag. Standards are generally well organized, and many are clear and specific. Others, however, fail to clarify expectations or omit essential content that students should master as part of a rigorous, K-12 curriculum. What's more, the failure to delineate grade-specific expectations in high school leaves teachers of grades 9-12 with very little guidance about the essential content and progression of rigor from grade to grade.

GRADE **C**

Clarity and Specificity: 2/3
Content and Rigor: 4/7

Total State Score 6/10

(*Common Core Grade: B+*)

General Organization

The Maryland state standards for Reading/ELA cover grades Pre-K-12, but are separated into early-middle and high school documents. Standards for Pre-K-8 are divided into the following seven standards categories:

1. General Reading Processes
2. Comprehension of Informational Texts
3. Comprehension of Literary Texts
4. Writing
5. Controlling Language (including grammar, usage, and mechanics)
6. Listening
7. Speaking

Each of these is further subdivided into topics, then indicators, and finally into grade-specific objectives.

The high school standards follow a similar organizational structure, with two important differences. First, the standards are not grade-specific, but clumped together for grades 9-12. Second, they are grouped according to these four learning goals:

1. Reading, Reviewing, and Responding to Texts
2. Composing in a Variety of Modes
3. Controlling Language
4. Evaluating the Content, Organization, and Language Use of Texts

Across all grade levels, the state frequently links objectives to "seeds." According to the state, these seeds "are ideas for the indicator/objective that can be used to build a lesson." They "are not meant to be all-inclusive, nor are they substitutes for instruction." Essentially, seeds are suggested activities for lessons that will help teach specific standards.

Clarity and Specificity

Elements of the Maryland state ELA standards are very specific and provide excellent guidance about what is expected of students at each grade level. For example, the standards for phonics and phonemic awareness are detailed and specific and provide a clear progression from grade to grade.

Unfortunately, many of the standards, particularly those for reading literary and non-literary texts, are cluttered with peripheral skills (such as pre-reading, making use of illustrations, etc.) and jargon that make it difficult to discern exactly what is expected of students at each grade level.

Moreover, because the high school standards are not broken down by grade level, it's impossible to differentiate between the expectations that teachers should have for students in ninth grade versus tenth, eleventh, or twelfth. Worse still, the standards provided for K-8 appear to have little to do with those for grades 9-12. The latter follow a different organization, making it nearly impossible to detect K-12 vertical skill alignment.

Finally, while the standards often provide an overwhelming amount of detail, much of it does little to clarify expectations. In particular, the "seeds," which are provided to help teachers better understand how to teach particular skills, generally describe activities that are only loosely linked to mastery of the essential content and skills in the standard itself.

These shortcomings make it difficult to understand the scope and sequence of the material that students must learn, and as a result, Maryland can earn no higher than two points out of three for Clarity and Specificity (see *Common Grading Metric*, Appendix A).

Content and Rigor

Content Strengths

Among the strengths of the Maryland K-12 standards is their clear focus on the development of phonics skills and phonemic awareness in early reading, with a clear progression of skills from grade to grade. The K-4 standards also include detailed expectations for vocabulary development, with a similar progression.

The grade 9-12 standards set forth rigorous and sophisticated grammar expectations, but because the K-8 standards are somewhat general and basic, it is unclear how students can reach the level expected of them in high school.

In reading, very detailed standards outline expectations for literary analysis and, in high school, the standards mention foundational U.S. documents, including specific references to some authors and texts that students should read. For example:

> The student will
>
> - Analyze the philosophical arguments presented in a literary work and their relationship to the author's position on those arguments
> - Analyze foundational and other influential U.S. documents for their historical, rhetorical, and literary significance (e.g., The Declaration of Independence, Lincoln's "Gettysburg Address," King's "Letter from Birmingham Jail," Kennedy's Inaugural Address)
> - Apply knowledge of genre characteristics (structure) to interpret and analyze a variety of literary works (e.g., poems, novels, essays, biographies, short stories)
> - Interpret a single literary work from multiple critical approaches (grades 11-12)

The standards include reasonably detailed expectations for listening and speaking, formal oral presentations, and group discussion.

Other standards address expectations for research across all grade levels; the 9-12 research standards are particularly detailed and specific.

Content Weaknesses

The standards for literary analysis are clear and rigorous, as noted, but they also include a great deal of clutter—notably a disproportionate emphasis on pre-reading strategies and other peripheral skills that could distract from the most important literary analysis standards.

Aside from the few brief references in the high school standards to suggested texts and authors, the standards provide no guidance about the quality or complexity of the texts students should read across grade levels. Instead, the document merely provides a long list of genres that students should read. "Diversity" of texts is stressed with no guidance about what that means.

In writing, much of the language is vague and jargon-ridden, with too much emphasis on "activities" and little on knowledge and rigor (though the K-4 standards do slightly better on this front).

The K-8 standards devote meager attention to the characteristics of writing. At the high school level, the standards refer to an "Appendix A," which is supposed to include helpful examples of student writing, but is buried and under another name on the website.

Maryland's ELA standards present a decidedly mixed bag. While many are clear and rigorous, particularly at the high school level, there are serious gaps in content and a lack of alignment between the K-8 and high school documents. Taken together, these challenges present critical shortcomings and earn Maryland four points out of seven for Content and Rigor. (See *Common Grading Metric*, Appendix A.)

The Bottom Line

With their grade of C, Maryland'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 Old Line State has in place today.

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

Maryland • Mathematics

DOCUMENTS REVIEWED[1]

Maryland's Voluntary State Curriculum. June 2004.
Accessed from: http://mdk12.org/instruction/curriculum/mathematics/index.html

Overview

Maryland's standards are poorly organized and difficult to interpret without additional explanation, which is only occasionally provided. The major content weakness is in the development of arithmetic.

GRADE **D**

Clarity and Specificity:	1/3
Content and Rigor:	3/7
Total State Score:	**4/10**

(*Common Core Grade: A-*)

General Organization

Maryland's K-8 standards are subdivided into seven content strands such as Geometry and Measurement. Within each strand is a hierarchy, with "Topics" subdivided into "Indicators," and finally into grade-level objectives. It is the objectives that will be referred to as standards.

The high school standards are organized by courses: Algebra/Data Analysis, Geometry, and Algebra II. The standards are organized within courses by "Core Learning Goals" and also include "Assessment Limits," "Skill Statements," and "Additional Topics." Assessment Limits provide information regarding how the standard will be assessed (e.g., "A coordinate graph will be given with easily read coordinates"). The Skill Statement goes a step further and "gives the reader direction on how an assessment item is written [and] describes how the student is expected to respond to the item." Finally, the Additional Topics provide "content that may be appropriate for the curriculum but is not included in the Core Learning Goals."

Clarity and Specificity

Maryland offers some clearly stated standards, but in general they are difficult to read and understand. The organization itself is sometimes confusing; the statements are often unspecific and are subject to interpretation. The online version is difficult to navigate, and the additional explanatory material found there often fails to clarify the intent of the standards.

One strand—"Processes of Mathematics"—does not vary much from grade to grade.

The standards are generally vague, pedagogical statements such as:

> Make a plan to solve a problem (grades K-8)

This is certainly good advice, but as a standard it is so lacking in specificity as to be completely unmeasureable.

The choice of topics for K-8 is sometimes inappropriate, such as "Sample Space" from grades 1-8, and "Apply Knowledge of Fractions" for grades 1-4. Furthermore, the early standards for this topic are about the basics of fractions, rather than the applications, so the name is also misleading.

The verb "identify" is overused in the standards—more than fifty times in K-8—which often obscures the meaning. These adjacent standards illustrate the confusion generated by the word "identify" as well as the difficulty in interpreting the standards:

> Identify and use divisibility rules (grade 4)
> Identify factors (grade 4)

For the latter standard, the use of "identify" instead of "find" or "compute" leaves the reader unsure what students are expected to know or what kinds of problems they should be able to solve.

Maryland does provide online clarifications for the standards cited above. For the first, students are expected to be able to use the divisibility rules for two, five, and ten. The clarification of the second standard is about computing factors, not "identifying" them. However, that clarification contradicts the preceding standard by asking students to use a calculator to check for divisibility by two, five, or ten, which is completely inappropriate when students know the simple rules.

The high school standards are even harder to understand, and it is virtually impossible to grasp them without also reading the Assessment Limit that is included for each. For example, the following is a geometry standard and its Skill Statement:

> The student will analyze the properties of geometric figures (high school)
>
> The student describes and analyzes geometric figures (high school)

And here are the Assessment Limits for this standard and statement:

> Essential properties, relationships, and geometric models include the following:
>
> 1. congruence and similarity
> 2. line/segment/plane relationships (parallel, perpendicular, intersecting, bisecting, midpoint, median, altitude)
> 3. point relationships (collinear, coplanar)
> 4. angles and angle relationships (vertical, adjacent, complementary, supplementary, obtuse, acute, right, interior, exterior)
> 5. angle relationships with parallel lines
> 6. polygons (regular, non-regular, composite, equilateral, equiangular)
> 7. geometric solids (cones, cylinders, prisms, pyramids, composite figures)
> 8. circle/sphere (tangent, radius, diameter, chord, secant, central/inscribed angle, inscribed, circumscribed) (high school)

The Assessment Limits contain all of the useful content for this standard, including specific topics such as "congruence and similarity."

Some standards are simply unclear, such as:

> The student will determine and interpret a quadratic function when given a graph, table of values, essential characteristics of the function, or a verbal description of a real-world situation (Algebra II)

The meaning of "determine and interpret" is subject to interpretation. Unfortunately, the Skill Statement for this standard is so convoluted and lengthy that it fails to clarify. In short, it reads, "Given one or more of the following:" followed by a list and then, "the student will be able to do each of:" followed by another list. This gives over twenty possibilities. Worse, some of the combinations make no sense. For example, one combination is: "[G]iven" a graph, students "will be able to" graph the function. This illustrates the general disorganization of the standards. The reader has very little idea what kinds of problems students are expected to be able to solve on quadratic equations.

The standards offer "limited guidance to users" and receive a Clarity and Specificity score of one point out of three. (See *Common Grading Metric*, Appendix A.)

Content and Rigor

Content Priorities

Maryland has many standards for each grade, generally over sixty. In elementary grades, nearly 40 percent of those standards are devoted to the development of arithmetic. This prioritizes arithmetic moderately well.

Content Strengths

The standards cover some of the basic properties of arithmetic well, including commutativity, associativity, and distributivity. They also explicitly cover the inverse relationship of addition and subtraction and of multiplication and division.

Despite the difficulty of interpretation, much of the essential content for high school is covered.

Content Weaknesses

The weaknesses in the foundation for whole-number arithmetic are pronounced. The standards do not adequately specify that students have automaticity, or quick recall, of basic number facts. These are the basic building blocks for future mathematics; students who are still struggling with basic facts are not prepared to move on to the next level of mathematics.

In the following examples, the grade 4 standard is a desirable standard, but a rigorous treatment should include fluency with the standard algorithm. The grade 3 standard with the phrase "a variety of strategies" does not support mastery of the standard algorithm either.

> Add whole numbers (grade 4)
>
> Add numbers using a variety of strategies (grade 3)

The rest of the development of arithmetic is similar. Neither fluency nor standard methods are specified. In addition, common denominators are not covered.

In high school, the standards for quadratic equations are missing the technique of completing the square, which is necessary to develop the quadratic formula. Some STEM-ready material is missing, including trigonometry.

Maryland's standards do not sufficiently prioritize or develop arithmetic, particularly whole-number arithmetic. In high school, the treatment of quadratic equations is incomplete, and some STEM-ready topics are not covered. These "serious problems" result in a Content and Rigor score of three points out of seven. (See *Common Grading Metric*, Appendix A.)

The Bottom Line

With their grade of D, Maryland's mathematics standards are among the worst in the country, while those developed by the Common Core State Standards Initiative earn an impressive A-minus. The CCSS math standards are vastly superior to what the Old Line State has in place today.

1 Fordham's 2005 *State of State Math Standards* reviewed the August 2003 draft version of Maryland's math standards. For this evaluation in 2010, we reviewed the updated and finalized version (from June 2004). Along with this slight change in material reviewed, the evaluation criteria that we used to judge the 2010 standards have been substantially revised and improved since 2005. (See Appendix C for a complete explanation of changes in criteria.) Through this new lens, and with this finalized standards document, Maryland's math grade dropped from a C in 2005 to a D in 2010. The complete 2005 review can be found here: http://www.edexcellence.net/detail/news.cfm?news_id=338&pubsubid=1162#1162.