

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

Ohio • English Language Arts

DOCUMENTS REVIEWED¹

Ohio Academic Content Standards: English Language Arts. December 11, 2001.

Accessed from: <http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=1699&ContentID=489&Content=67593>

ContentID=489&Content=67593

Overview

The Ohio standards are a mixed bag. With the minor exception of media, expectations addressing all of the essential ELA content are included. Unfortunately, much of this content is covered superficially, and some content is missing altogether. Further, the failure to clearly prioritize content and the inclusion of vaguely worded standards makes expectations difficult to understand and not too helpful to teachers.



Clarity and Specificity: 2/3

Content and Rigor: 4/7

Total State Score: 6/10

(*Common Core Grade: B+*)

General Organization

Ohio's ELA expectations are divided into ten "standards" that are common to all grades, K-12. The standards are then divided by grade band into benchmarks and then benchmarks into grade-level indicators.

Clarity and Specificity

The Ohio standards are well organized and presented. In fact, the state presents them in two ways: by standard, which allows the reader to track the progression of content across grade levels, and by grade so that the reader can understand what students need to master within each grade to be ready for the next. This presentation makes the standards easily accessible to different audiences.

While some standards are clearly written, many are too vaguely worded to provide sufficient guidance. Take, for example, the following vocabulary and convention standards:

Use multiple resources to enhance comprehension of vocabulary (grades 4-7)

Use quotation marks (grade 2)

Other standards are tautological, as in:

Apply knowledge of connotation and denotation to determine the meaning of words (grade 6)

Taken together, these shortcomings leave teachers in the Buckeye State without the clear guidance they need to drive curriculum, instruction, and assessment. Consequently, the standards earn two points out of three for Clarity and Specificity. (See *Common Grading Metric*, Appendix A.)

Content and Rigor

Content Strengths

In early reading, Ohio includes expectations that delineate explicit and systematic expectations in phonemic awareness, phonics, and fluency. The vocabulary standards are good, addressing systematic vocabulary development, despite vague language in spots.

Standards addressing the comprehension and analysis of literary and non-literary text are generally strong, including:

Compare and contrast motivations and reactions of literary characters confronting similar conflicts (e.g., individual vs. nature, freedom vs. responsibility, individual vs. society), using specific examples of characters' thoughts, words and actions (grade 11)

Distinguish between valid and invalid inferences and provide evidence to support the findings, noting instances of unsupported inferences, fallacious reasoning, propaganda techniques, bias and stereotyping (grade 11)

The writing standards are divided into “process” and “applications.” While the process standards are somewhat repetitive and heavy-handed, the applications standards are generally good, outlining specific expectations for various grade-appropriate writing genres. (It would be more helpful, though, if the standards included samples of exemplary writing so that teachers and students could clearly understand the writing expectations.)

The standards for research are generally strong, outlining specific expectations for research papers and the proper use and citation of sources. Specific expectations for oral presentations, such as the following standard in grade 6, are also included:

Deliver informational presentations (e.g., expository, research) that:

- demonstrate an understanding of the topic and present events or ideas in a logical sequence;
- support the controlling idea or thesis with relevant facts, details, examples, quotations, statistics, stories and anecdotes;
- include an effective introduction and conclusion and use a consistent organizational structure (e.g., cause-effect, compare-contrast);
- use appropriate visual materials (e.g., diagrams, charts, illustrations) and available technology; and
- draw from multiple sources and identify sources used (grade 6)

Content Weaknesses

While many of the early reading standards are strong, the definition of a phoneme is loose. Rather than noting that a phoneme is the smallest phonetic unit of sound that is capable of conveying meaning, it is defined simply as a “sound.”

In addition, while vocabulary standards are generally strong, the state places disproportionate emphasis on the use of context clues to determine the meaning of a word; subsequently, decoding skills receive less emphasis. Similarly, the reading standards overemphasize comprehension strategies and this overshadows some of the more essential reading content.

Although rigorous standards addressing the comprehension and analysis of literary and non-literary text are provided, these fail to describe the amount, quality, and complexity of texts to be studied. As noted in Fordham’s 2005 review of these standards, “distinctions need to be made through the grades among the three major categories of imaginative literature (fiction, poetry, and dramatic literature) with respect to their distinctive elements and devices.” Doing so would provide much better guidance to teachers about the literature the students should be reading and what characteristics of it are important to know. No lists (authors and/or titles), sample passages, or commentary are included, either, making it impossible to gauge the level of rigor expected. Finally, the reading standards fail to specify expectations for the study of outstanding American literature. In fact, the lone reference (in grade 12) to America’s literary heritage is not only conflated with all literature ever written, it is so vague that it is ultimately meaningless:

Compare and contrast varying characteristics of American, British, world and multi-cultural literature (grade 12)

Standards for language conventions are sporadic at best. In many cases, they direct students simply to “use” certain conventions, without addressing all essential content. For example, the vague standard cited above requiring students to “use quotation marks” doesn’t specify if students are to apply such use in titles, dialogue, or otherwise. Further, the “writing process” strand includes several expectations about students “improving conventions,” which makes no sense and is instructionally meaningless.

The standards also frequently demonstrate a problematic progression of rigor from grade to grade. In a number of places, more rigorous standards appear to come first. For example:

- Explain the influence of setting on the selection (grade 5)
- Identify the features of setting and explain their importance in literary text (grade 6)

Identifying the features of setting is a simpler task than explaining its influence.

Finally, when technology and media are addressed in the standards, their treatment is vague. The standards simply ask students to use technology, rather than learn deliberately about creating and analyzing multimedia products.

These shortcomings leave more than 35 percent of the critical content missing from the Ohio standards, thus earning the state four points out of seven for Content and Rigor. (See *Common Grading Metric*, Appendix A.)

The Bottom Line

With their grade of C, Ohio'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 Buckeye State has in place today.

1 Ohio's academic content standards have not changed since Fordham's last evaluation, the *State of State English Standards 2005*. However, in 2005, we also reviewed supplementary material for Ohio's benchmark indicators. Moreover, 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.) Even through this new lens, Ohio's ELA grade remained a C. The complete 2005 review can be found here: http://www.edexcellence.net/detail/news.cfm?news_id=337&pubsubid=1062#1062.

Ohio • Mathematics

DOCUMENTS REVIEWED¹

Academic Content Standards: K-12 Mathematics, December 11, 2001.

Accessed from: <http://www.ode.state.oh.us/GD/DocumentManagement/DocumentDownload.aspx?DocumentID=791>

Overview

Ohio's standards are well presented and often provide a detailed description of content to be learned. However, there are far too many standards and important content is not distinguished, so the standards are unfocused and seem haphazard. The most crucial failing of these standards is in the inadequate development of arithmetic and the failure to make it a priority.



Clarity and Specificity: 2/3

Content and Rigor: 3/7

Total State Score: 5/10

(Common Core Grade: A-)

General Organization

Ohio's K-12 standards are organized by content strands such as Number, Number Sense and Operations. These are further subdivided by topics, and then into grade-band benchmarks, which are meant to provide "key checkpoints to monitor progress." Then benchmarks are divided into "grade-level indicators," which we refer to in this review as "standards."

The standards also include a separate strand devoted to process standards that is designed to be "incorporated within instruction and assessment."

Clarity and Specificity

The standards are well presented, and many of them are easy to read and understand. Some include examples that clarify the meaning of the statements, an excellent feature. Many individual standards are both clear and specific such as:

- Make simple unit conversions within a measurement system; e.g., inches to feet, kilograms to grams, quarts to gallons (grade 4)
- Prove theorems involving triangle similarity and congruence (grade 10)

However, there are also many broad statements that are not specific or measurable. For example, students are expected to:

- Use patterns to make predictions, identify relationships, and solve problems (grade 3)

The meaning of this standard is unclear. Similarly, students are expected to:

- Examine statements and decisions involving risk; e.g., insurance rates and medical decisions (grade 12)

It is obvious that twelfth-graders cannot be expected to do expert-level statistical analysis, so what exactly is meant by this statement, or how it could be measured, is not clear.

While the standards' use of examples is exemplary, they are not consistently used throughout, and there are a significant number of standards that are subject to interpretation on the part of the reader. The "insufficient detail" and "unclear language" result in a Clarity and Specificity score of two points out of three. (See *Common Grading Metric*, Appendix A.)

Content and Rigor

Content Priorities

Ohio's standards do not prioritize the content. The number of standards in each grade is excessive, and the benchmarks, which could distinguish the most important content, do not perform this function. For example, there are forty-seven standards in fourth grade, and there are fifty-eight benchmarks for the grade 3-4 band. In the fourth grade, the number of arithmetic standards is about equal to the number of data analysis, statistics, and probability (DASP) standards, so the reader could conclude that they are of equal importance. Only about 30 percent of the standards in the crucial grades are about the development of arithmetic, which is completely inadequate.

Content Strengths

High school content is generally well covered. Geometry includes proofs of major theorems and trigonometry is nicely covered, including basic identities for trigonometric functions. STEM-ready topics are included, such as polar coordinates, exponential functions, and logarithms.

Content Weaknesses

The development of whole-number arithmetic is the most crucial content in early elementary school. Ohio has many developmental and supporting standards for students learning how to add, subtract, multiply, and divide whole numbers. However, they fail to culminate with computational fluency with the standard algorithms.

Consider the following sequence of standards on whole-number multiplication starting with:

— Demonstrate fluency in multiplication facts through 10 and corresponding division facts (grade 3)

This is ambiguous. It could mean to demonstrate computational fluency, or it could mean to demonstrate fluency with memory recall. Students who cannot quickly recall single-digit multiplication facts are not prepared to continue learning multiplication. The next two standards are the apparent culmination of whole-number multiplication:

— Use a variety of methods and appropriate tools for computing with whole numbers; e.g., mental math, paper and pencil, and calculator (grade 4)

— Demonstrate fluency in adding and subtracting whole numbers and in multiplying and dividing whole numbers by 1- and 2-digit numbers and multiples of ten (grade 4)

This thread, taken as a whole, is inadequate. While the second standard requires fluency in multiplication, it does not specify fluency with the standard algorithm. The previous standard seems to imply that any method at all will serve, including the use of a calculator. Taken together, these standards undermine this important arithmetic goal.

The development of fraction and decimal arithmetic is similarly inadequate. In this standard, for example, the development of the arithmetic of fractions seems ultimately to be left up to the student:

— Develop and analyze algorithms for computing with fractions and decimals, and demonstrate fluency in their use (grade 6)

In high school, the coverage of quadratic equations is missing the technique of completing the square to solve quadratic equations so that the quadratic formula cannot be derived coherently and the graphs of quadratic equations cannot be analyzed properly.

There are mathematical errors in the standards, for example, the fifth-grade statement “the ratio of the circumference of a circle to its diameter is an approximation of π .” This ratio is not an approximation of π , it is the definition of π . Another egregious example is:

— Describe differences between rational and irrational numbers; e.g., use technology to show that some numbers (rational) can be expressed as terminating or repeating decimals and others (irrational) as non-terminating and non-repeating decimals (grade 7)

This standard is nonsensical since technology cannot do what is claimed. More generally, the insertion of calculators, starting in the third grade, is unnecessary and artificial.

There are serious problems in the Ohio standards. Most critical is the treatment of arithmetic, which is not prioritized or well developed. More generally, the number of the standards is excessive and distracts from the essential content so that the standards lack focus. There are inappropriate standards including ones with calculators and some containing errors. Ohio receives three points out of seven for Content and Rigor. (See *Common Grading Metric*, Appendix A.)

The Bottom Line

With their grade of C, Ohio'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 the Buckeye State has in place today.

¹ Ohio's academic content standards have not changed since Fordham's last evaluation, the *State of State Math Standards 2005*. However, 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, Ohio's math grade went from a D to a C. The complete 2005 review can be found here: http://www.edexcellence.net/detail/news.cfm?news_id=338&pubsubid=1177#1177.