New Jersey • English Language Arts

Overview
New Jersey’s standards exhibit some strengths in key areas, such as reading, but enough problems exist in content coverage of other areas, as well as in overall clarity and specificity, that the standards on balance are rather mediocre.

General Organization
The New Jersey standards are organized into the following strands:

» Reading
» Writing
» Speaking
» Listening
» Viewing and Media Literacy

Within each of the strands, the standards are organized into categories (eight for Reading, and two to four for the other strands), and finally into grade-specific standards. Grades 9-12 is the exception: Just one set of standards is offered for all four grades.

Clarity and Specificity
The New Jersey standards are a mix of specific and vague. In most places, their language is specific enough to communicate clear expectations for students, but some standards are vague and unmeasurable, such as the following “Comprehension Skills and Response” standards in Kindergarten:

- Comprehension Skills and Response to Text
  1. Respond to a variety of poems and stories through movement, art, music, and drama
  2. Verbally identify the main character, setting, and important events in a story read aloud
  3. Identify favorite books and stories (Kindergarten)

Among those three standards, only the second is academic and measurable.

Grade
Clarity and Specificity: 2/3
Content and Rigor: 4/7
Total State Score: 6/10
(Common Core Grade: B+)

As of June 20, 2010, this state had adopted the Common Core State Standards.
In standards such as these for vocabulary, one from Kindergarten and one from grade 7, the expectations are too broadly drawn to be useful:

- Continue to develop a vocabulary through meaningful, concrete experiences (Kindergarten)
- Develop an extended vocabulary through both listening and independent reading (grade 7)

On the other hand, in the same set of seventh-grade standards, the following specific standard also appears:

- Clarify pronunciations, meanings, alternate word choice, parts of speech, and etymology of words using the dictionary, thesaurus, glossary, and technology resources (grade 7)

New Jersey’s standards would be more useful to teachers and students if more of them reached this level of clarity and specificity.

At each grade level, “Comprehension Skills and Response to Text” standards deal with the analysis of both literary and informational texts. These standards are not organized in any systematic way, making it difficult to track expectations across grades by type of text. In some grades, as many as seventeen disparate standards appear in this category. Organizing them by text type would make them much easier to track.

Finally, it must be noted that New Jersey has developed a single set of standards for grades 9-12. It is impossible for one set of standards to cover so much material at a level of specificity that is useful, and no guidance is offered for specific high-school grade levels.

These challenges leave the scope and sequence of the material not completely apparent or sensible, thus earning New Jersey two points out of three for Clarity and Specificity. (See Common Grading Metric, Appendix A.)

**Content and Rigor**

**Content Strengths**

The New Jersey early reading standards are fairly rigorous. Key topics—concepts about print, phonological awareness, decoding and word recognition, and fluency—are all addressed. Here is part of a first-grade standard for “Decoding and Word Recognition”:

1. Identify all consonant sounds in spoken words (including blends such as bl, br; and digraphs such as th, wh)
2. Recognize and use rhyming words to reinforce decoding skills
3. Decode regular one-syllable words and nonsense words (e.g., sit, zot)
4. Use sound-letter correspondence knowledge to sound out unknown words when reading text
5. Recognize high-frequency words in and out of context
6. Decode unknown words using basic phonetic analysis (grade 1)

These six items are reasonably rigorous, though it is a shame that the last item in the set, shown below, wrongly suggests that words can be decoded by using context clues:

7. Decode unknown words using context clues (grade 1)

Holding aside this last stumble, the standard above is typical of the early reading content.

Vocabulary is addressed in every grade, including important categories such as knowledge of word parts, synonyms and antonyms, connotation and denotation, and dictionary use.

Although it is sometimes difficult to locate, the content of the standards for literary and informational texts is largely on target, as in the following standard on literary elements from grade 7:

- Locate and analyze the elements of setting, characterization, and plot to construct understanding of how characters influence the progression and resolution of the plot (grade 7)
The high school standards also include the welcome statement that “foundational U.S. documents are to be studied for their historical and literary significance.”

Standards for Speaking and Listening are mostly commendable. They address active listening and effective speaking skills, including recitations and oral presentations. The speaking standards include a word choice category, which is helpful. The standards also suggest the use of a scoring rubric to evaluate oral presentations, though no rubric is provided.

**Content Weaknesses**

Informational text is not given as much attention as literary text throughout the document. Of the fifteen standards for “Comprehension Skills and Response to Text” in grade 8, for example, only two address informational text explicitly:

- Differentiate between fact/opinion and bias and propaganda in newspapers, periodicals, and electronic texts
- Read critically by identifying, analyzing, and applying knowledge of the purpose, structure, and elements of nonfiction and providing support from the text as evidence of understanding (grade 8)

The high school standards are a bit better, but they tend to focus more on functional documents instead of the analysis of arguments and persuasive writing.

In addition, other than the solitary standard noted above that mentions foundational U.S. documents, nowhere does New Jersey define the quality and complexity of reading that is appropriate for students.

The writing standards address “process” and “products,” as well as “forms, audiences and purposes.” The second and third categories are blurred, which makes priorities difficult to glean. Conventions are discussed within the writing strand, but the standards are mostly generic, as in this grade 5 standard:

- Use Standard English conventions in all writing, such as sentence structure, grammar and usage, punctuation, capitalization, spelling, and handwriting (grade 5)

In some places, specific aspects of grammar are mentioned, but not in a systematic or thorough way.

Inquiry and research are treated in both reading and writing, but the expectations are thin and appear sporadically. Within grade 8 writing, for example, the only standard that mentions research states:

- Prepare a works consulted page for reports or research papers (grade 8)

Research is mentioned in bits and pieces throughout the standards document, but the standards do not fully address all aspects of the research process either within a grade or across grades.

Though some of the standards are unmeasurable, the expectations for Viewing and Media Literacy are good enough when it comes to analysis of media. The standards fall short of expecting students to produce media products, however, save for one standard in grades 9-12. This essential college- and career-ready skill should be addressed.

These gaps leave at least 35 percent of the essential K-12 content missing, earning New Jersey four points out of seven for Content and Rigor. (See *Common Grading Metric*, Appendix A.)

**The Bottom Line**

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

Overview

New Jersey's standards are extremely difficult to read and understand. They are presented in several different documents and, within each presentation, the organization is complex, making them difficult to follow. Arithmetic is moderately prioritized, but its development is inadequate. High school content is reasonably well covered, but it is presented in several different documents, with some STEM-ready material missing.

General Organization

New Jersey divides its math expectations into five strands, each of which is divided into between three and six different topics. Grade-specific expectations are then presented for grades 2-8 and grade 12. (Note that one of the five strands is a process strand that is devoted to general problem solving and pedagogy.)

In addition, the state provides a “clarification” document for grades 3-8 that is designed to clarify expectations at both the strand and the standard level. At the strand level, the state offers essential questions, areas of focus, and example problems. At the standard level, “comments and examples” are included.

In addition to the twelfth grade standards mentioned above, the state also presents course-specific standards for Algebra I and II. The Algebra I standards are organized the same way as the Clarification Project but with different content strands and topics. For Algebra II, New Jersey uses Achieve’s ADP Algebra II core standards.

Clarity and Specificity

The general presentation of the standards is very poor and extremely difficult to follow because essential content and clarification is scattered across several documents.

In addition, standards are frequently repeated across the grades with no grade-specific clarification, for example:

| Use coordinates in four quadrants to represent geometric concepts (grades 7-8) |
Some standards are clear and concise, such as:

- Understand and use the concepts of equals, less than, and greater than to describe relations between numbers (grade 3)
- Use a protractor to measure angles (grade 5)

Unfortunately, essential details that help clarify student expectations are often difficult to find. Take, for example, the following standard, which is repeated verbatim across grades 3-6:

- Compare and order numbers (grades 3-6)

In order for teachers to discern what numbers are included for specific grades (i.e., whole numbers, fractions, decimals, etc.), they must dig through two different (and confusing) documents.

What’s more, the clarifications frequently are not helpful; this standard and its clarification is one example:

- Recognize, describe, extend, and create space-filling patterns
  Clarification: This is an area of focus in grade 3 and may be assessed at a higher level of understanding in grade 4 (grades 3-4)

The use of examples in the clarification documents is a good feature, but they are not provided consistently and frequently fail to provide needed illumination. These standards are so difficult to follow that they “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**

In a clarification document, New Jersey explicitly prioritizes the most important standards by labeling them as “focal points.” Unfortunately, arithmetic comprises less than 40 percent of the “focal points” standards in the crucial grades, a moderate, but inadequate, setting of priorities.

**Content Strengths**

In the early development of arithmetic, memorization of basic number facts is made explicit:

- Develop proficiency with basic addition and subtraction number facts using a variety of fact strategies (such as “counting on” and “near doubles”) and then commit them to memory (grade 2)
- Develop proficiency with basic multiplication and division number facts using a variety of fact strategies (such as “skip counting” and “repeated subtraction”) and then commit them to memory (grade 4)

The number line is introduced in grade 3 and appears throughout. Standards on measurement are strong and clear. Converting between measuring systems is included, for example:

- Know approximate equivalents between the standard and metric systems (e.g., one kilometer is approximately 6/10 of a mile) (grade 5)

Some of the high school content is well covered, particularly in the Algebra II standards. For example, algebraic facility with polynomial and rational functions is included.

**Content Weaknesses**

The coverage of whole-number arithmetic does not include fluency or standard algorithms:

- Use efficient and accurate pencil-and-paper procedures for computation with whole numbers
  - Addition of 3-digit numbers
  - Subtraction of 3-digit numbers
  - Multiplication of 2-digit numbers
  - Division of 3-digit numbers by 1-digit numbers (grade 4)
This failure to instill standard methods continues with decimals and fractions where students are expected to construct their own procedures for decimals:

- Construct and use procedures for performing decimal addition and subtraction (grade 4)

Technology is introduced early and included often in the standards, undermining students’ mastery of arithmetic. For example, the following standard appears to give students the choice to always use a calculator:

- Select pencil-and-paper, mental math, or a calculator as the appropriate computational method in a given situation depending on the context and numbers (grades 2-6)

Another example is the following, where important introductory algebraic skills and concepts may be subsumed by the use of calculators:

- Solve simple linear equations informally and graphically: Multi-step, integer coefficients only (although answers may not be integers); using paper-and-pencil, calculators, graphing calculators, spreadsheets, and other technology (grade 7)

The high school material is missing some content. The coverage of linear equations omits point-slope form and finding the equation for a line between two points. In geometry, major theorems are not proven, and axioms and postulates are not mentioned. In addition, much STEM-ready content is missing, including most of that relating to trigonometry. Arithmetic is moderately prioritized, but the development is inadequate. Some high school content is reasonably well covered, but much of the STEM-ready material is missing. 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, New Jersey’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 Garden State has in place today.