

New Mexico • English Language Arts

DOCUMENTS REVIEWED

New Mexico Language Arts Standards, Grades K-4. June 2009.

Accessed from: <http://www.ped.state.nm.us/standards/Language%20Arts/Language%20Arts%20K-4.pdf>

New Mexico Language Arts Standards, Grades 5-8. June 2009.

Accessed from: <http://www.ped.state.nm.us/standards/Language%20Arts/Language%20Arts%205-8.pdf>

New Mexico Language Arts Standards, Grades 9-12. August 2009.

Accessed from: <http://www.ped.state.nm.us/AssessmentAccountability/AssessmentEvaluation/dl10/Language%20Arts%209-12.pdf>

Overview

New Mexico provides essentially two separate sets of standards—one for K-8 students and one for high school. Whereas the former are vague, repetitive, and fail to provide clear guidance about what, precisely, students should know and be able to do across content strands, the 9-12 standards are generally clear and rigorous. Given this dichotomy, it's unclear how elementary and middle school students will be adequately prepared for the rigors that lie ahead.



Clarity and Specificity: 1/3

Content and Rigor: 4/7

Total State Score: 5/10

(Common Core Grade: B+)

General Organization

The New Mexico K-8 ELA standards are divided into three strands: Reading and Listening for Comprehension, Writing and Speaking for Expression, and Literature and Media.

These strands are subdivided into “content standards,” which broadly define student learning goals. For example, Content Standard I for the “reading and listening” strand says: “students will apply strategies and skills to comprehend information that is read, heard and viewed.”

Each content standard is broken into “benchmarks” by grade band (K-4, 5-8, and 9-12), and finally into “performance standards,” which are grade-specific.

The high school standards follow a similar organizational structure, with three important distinctions. First, there are nine strands rather than three: Reading, Language, Communication, Writing, Research, Logic, Informational Text, Media, and Literature. Second, some of the high school performance standards are presented for grade bands—9-10, 11-12, or 9-12—rather than for individual grades. Third, the grade-specific expectations for high school are called “performance indicators” rather than “performance standards.”

Clarity and Specificity

The New Mexico ELA standards for grades 9-12 are clearly presented and logically organized. Many of the performance indicators also very specifically outline what students should know and be able to do, as in the following vocabulary standards:

Use comprehension strategies for unfamiliar vocabulary:

- Use knowledge of roots, prefixes, suffixes (e.g., Greek/Latin) and etymology to determine the meaning of unfamiliar vocabulary (grades 9-10)
- Use general and specialized dictionaries, thesauri and glossaries...to determine the definition and pronunciation of unfamiliar words (grades 9-10)
- Use etymology, the principles behind spelling, and usage of words to determine meaning (grades 11-12)
- Differentiate shades of meaning and multiple meanings of words, including the significance of both connotation and denotation (grades 11-12)

By contrast, the organization of the K-8 standards is confusing. They combine reading and listening in one strand, and speaking and writing in another, but then include writing performance standards in the Reading strand and reading standards in the Writing. Not only is this confusing, it also leads to a number of standards that are repeated verbatim across strands and benchmarks.

In addition, the benchmarks, which are intended to organize the grade-specific performance standards, actually add more confusion than clarity. For example, a 5-8 benchmark requiring students to “apply grammatical and language conventions to communicate” includes a performance standard asking students to “relate prior knowledge to textual information,” something that seems better suited to reading than to a conventions benchmark.

Finally, the K-8 standards are plagued with performance standards that are so broad and unmeasurable as to be instructionally meaningless, such as:

- Increase vocabulary through reading, listening and interacting (grade 4)
- Respond to non-fiction using interpretive, critical and evaluative processes (grade 4)

It’s clear that New Mexico has invested significant time in improving the organization and clarity of the 9-12 ELA standards. Unfortunately, because the organization of the K-8 standards is so poor and the standards so vague, New Mexico can earn no higher than one point out of three for Clarity and Specificity. (See *Common Grading Metric*, Appendix A.)

Content and Rigor

Content Strengths

While there is much room for improvement in the New Mexico ELA standards, a few bright spots can be seen. The performance standards include reasonably clear expectations for phonics and phonemic awareness. They address listening and speaking skills in each grade, including standards that provide criteria for making formal oral presentations. The standards for conventions are generally good and require mastery of essential grammar content. And the state has wisely chosen to include a separate strand focused on essential research skills.

Unfortunately, as noted above, the 9-12 standards are far superior and provide more guidance about what essential content and skills students should master than do the K-8 standards. (See a vocabulary example supplied above.)

The high school standards include a separate strand for logic that admirably focuses on argument—assessing the truth and validity of an argument, recognizing, explaining, and analyzing fallacious reasoning, and analyzing rhetorical strategies.

There is also a new high school strand devoted to literary elements that clearly describes the content and skills that students must master, such as:

- Analyze various aspects of characterization (e.g., antagonist/protagonist, hero/heroine, tragic hero, archetype, stock character, flat character/round character, static character/dynamic character, foil) (grade 10)
- Analyze essential elements of plot (e.g., setting, exposition, conflict, rising action, climax, denouement) and identify the various effects of flashback, foreshadowing, and multiple subplots (grade 10)
- Identify characteristics of common genre fiction (e.g., science fiction, fantasy, magical realism, mystery, suspense, Western, horror, romance, Gothic literature, Manga, etc.) (grade 10)

Poetry and drama also have separate, more specific, and rigorous benchmarks in grades 9-12.

Content Weaknesses

As noted earlier, the weaknesses of the New Mexico standards are concentrated at the K-8 level. In reading, the K-8 standards disproportionately focus on comprehension skills and strategies, rather than essential content, and it is frequently difficult to track the progression of skills from grade to grade. What’s more, no standards reflect the importance of reading grade-appropriate works of American literature, nor is there any guidance—book lists, authors, etc.—about the types, amount, or complexity of reading that students should be doing.

While the state does list genres that students should read, the K-8 standards do not provide genre-specific performance standards that would help teachers better understand what content and skills students should focus on within each genre. Take, for example, the exhausting and instructionally useless fourth-grade standard below:

Read a variety of texts, including: fiction (e.g., legends, novels, folklore, science fiction), non-fiction (e.g., auto-biographies, informational books, diaries, and journals), poetry, drama (grade 4)

The state includes K-8 standards that specify the writing genres that students should study each year, but again the expectations fail to consistently clarify the essential characteristics of those genres. For instance, the K-4 standards provide very little genre-specific guidance, whereas the 5-8 standards include some clear expectations for research and argument. (These, however, are inexplicably buried in a reading strand, rather than among the writing standards.)

The K-8 standards do not require that students study synonyms, antonyms, basic prefixes and suffixes for identifying word meanings, compound words, multiple-meaning words. (They do expect students to use affixes to decode and to distinguish multiple-meaning words when writing, but they don’t include either of these elements as part of a comprehensive vocabulary acquisition program.)

Finally, a disproportionately large number of reading standards focus on students’ personal connections to texts, such as “evaluating personal circumstances and background that shape interaction with literature and media” (grade 8), which suggests that all interpretations are equally valid, depending on one’s own perspective.

New Mexico’s failure to delineate clear expectations for grades K-8 leaves more than 35 percent of the essential K-12 content missing, thus earning the standards four points out of seven for Content and Rigor. (See *Common Grading Metric*, Appendix A.)

The Bottom Line

With their grade of C, New Mexico’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 Land of Enchantment has in place today.

New Mexico • Mathematics

DOCUMENTS REVIEWED¹

Mathematics Content Standards, Benchmarks, and Performance Standards. June 2002; Reformatted January 2008.
Accessed from: <http://www.ped.state.nm.us/MathScience/dlo8/Standards/MathStandardsComplete2008.pdf>

Overview

New Mexico's standards are so excessive in number that they are difficult to read. There are weaknesses in arithmetic and in high school mathematics, but the greatest shortcoming is a failure to set priorities.



Clarity and Specificity: 1/3

Content and Rigor: 4/7

Total State Score: 5/10

(Common Core Grade: A-)

General Organization

The standards are organized by content strands such as Algebra and Geometry. These strands are further subdivided into “Benchmarks,” which are finally broken down into grade-level “Performance Standards.”

High school is not broken down into grades, but rather into content strands, which are slightly different from those for K-8. The organization by Benchmarks and Performance Standards is the same as for K-8.

Clarity and Specificity

Some of New Mexico's standards are excellent and explain exactly what a student should be able to do. Examples are often provided to clarify standards, such as:

| Solve simple multiplication and division problems (e.g., $135 \div 5 = \underline{\quad}$) (grade 3)

Unfortunately, the important standards are completely overwhelmed by the sheer number of standards, leaving readers with the general impression that New Mexico's math standards are unfocused and unclear. They lack clarity in two ways: they are poorly organized, and many of the statements lack specificity.

The standards are so numerous that they are repetitious and their presentation seems haphazard. Topics may be mentioned many times, even within a grade, and may appear in different places under different headings. For example, in the seventh grade, “add and subtract fractions with unlike denominators” appears twice under different Benchmarks. In second grade, there are at least seven standards relating to addition that appear under various Benchmarks. This makes it very difficult to determine what students are supposed to know about addition in second grade. This confusion continues throughout the standards, and the scope and sequencing of important content becomes very difficult to discern.

In addition, many standards are also vague, overly general, and hard to measure, such as:

| Participate in group and individual activities based on the concepts of space and location (grade 1)

| Select and use an appropriate model for a particular situation (grade 7)

The excellent content within the standards is buried among voluminous and vaguely worded expectations. These shortcomings render them of little guidance to users. (See the *Common Grading Metric*, Appendix A.) Accordingly, New Mexico receives a Clarity and Specificity score of one point out of three.

Content and Rigor

Content Priorities

The gravest problem with New Mexico’s standards is in their failure to prioritize content. Given the sheer number of standards presented at each grade—generally more than sixty, typically divided further into lists of sub-standards—the reader is left with no guidance about what content is most important. Vague standards about “concepts of space and location” (see example above) appear to be weighted equally with key topics such as counting and beginning addition and subtraction.

In fourth grade, whole-number operations culminate with an excellent standard requiring that students use the standard algorithms for arithmetic. Teaching students to master these algorithms is an appropriate focus for much of fourth grade mathematics. Yet this is just one standard out of sixty-one, with no indication that it is particularly important. Similarly, fractions are covered in only a few of the many fourth-grade standards.

Fewer than 30 percent of the math standards in the elementary grades are devoted to developing arithmetic, a woefully inadequate proportion given the centrality of this content at this stage of schooling.

Content Strengths

New Mexico covers much of the essential content, often rigorously. Basic properties of arithmetic such as commutativity, associativity, and distributivity are covered, as are the inverse nature of addition and subtraction and of multiplication and division. An outstanding feature is that students are expected to understand and use the standard algorithms for whole-number arithmetic.

The high school standards include much essential content, including proofs in geometry and many STEM-ready topics such as geometric series, exponential and logarithmic functions, and trigonometric identities.

Content Weaknesses

Although the capstone standards for whole-number arithmetic are explicit and appropriate, the prerequisite instant recall with basic number facts is not required. The highest such requirements are these second- and third-grade standards:

- Use addition combinations (addends through 10) and related subtraction combinations (grade 2)
- Compute with basic number combinations (e.g., multiplication pairs up to 10×10 and their division counterparts) (grade 3)

Using or computing with the number facts is not the same as recalling them with automaticity. 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 high school, the treatment of quadratic equations is incomplete. The technique of completing the square is not included, and this makes it impossible to do a thorough analysis of quadratic equations and their graphs. Also missing in the high school standards are such STEM topics as the manipulation of complex numbers and polar coordinates.

The biggest issue with New Mexico’s standards, however, is their failure to set priorities. Combined with missing content related to quadratics and STEM in high school, these critical 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 Mexico’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 Land of Enchantment has in place today.

¹ Fordham’s 2005 *State of State Math Standards* reviewed New Mexico’s June 2002 content standards document. In January 2008, the content standards were reformatted, changing the document some. Along with these changes to the document 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 reformatted standards document, New Mexico’s math grade dropped from a B to a C. The complete 2005 review can be found here: http://www.edexcellence.net/detail/news.cfm?news_id=338&pubsubid=1173#1173