Overview
While they suffer from wordiness and vague language in places, the Louisiana standards are strong in both content and rigor, exhibiting a clear progression from grade to grade.

General Organization
Louisiana’s seven overarching ELA standards are rather wordy:

1. Students read, comprehend, and respond to a range of materials, using a variety of strategies for different purposes.
2. Students write competently for a variety of purposes and audiences.
3. Students communicate using standard English grammar, usage, sentence structure, punctuation, capitalization, spelling, and handwriting.
4. Students demonstrate competence in speaking and listening as tools for learning and communicating.
5. Students locate, select, and synthesize information from a variety of texts, media, references, and technological sources to acquire and communicate knowledge.
6. Students read, analyze, and respond to literature as a record of life experiences.
7. Students apply reasoning and problem solving skills to reading, writing, speaking, listening, viewing, and visually representing.

Under each of these standards, we find lists of grade-level expectations (for all grades except 11 and 12, which are combined).

Clarity and Specificity
Louisiana’s grade-level expectations are a mix of clear and unclear, specific and non-specific, as illustrated in the following two standards for fifth grade. In the first of these, the “reading” expectation is very straightforward:

Identify and explain literary devices in grade-appropriate texts, including:
• how word choice and images appeal to the senses and suggest mood, tone, and style
• foreshadowing
• flashback (grade 5)

In the next expectation, however (for standard 7, “reasoning and problem solving”), it is not clear what measurable task students should be accomplishing, or even what the standard is meant to communicate:

Examine and explain the relationship between life experiences and texts to generate solutions to problems (grade 5)

Which problems are meant to be solved—personal problems? Foreign policy problems? Problems presented in the texts? What kind of texts, literary or informational? What is the relevance of life experience, and what kind of life experiences?
The organization of the document appears to exacerbate these problems of clarity and specificity, since some content, such as the analysis of literary and informational text, migrates among categories, making it difficult to track. Standards 1 (general “reading”), 6 (literature), and the aforementioned 7 (“reasoning and problem solving”) are presented together at each grade, but with different text types treated within standards 1 and 7. Standard 7 is often where various text types and the vaguest language appear, as in the example above.

In other places, the language is just vague, as in the following:

Identify the connections between ideas and information in a variety of texts (e.g., cartoons, poetry, fiction, instructional manuals) and real-life situations and other texts (grade 4, standard 1)

In still others, the syntax is also somewhat tortuous, making meaning difficult to comprehend:

Compare and/or contrast cultural elements including a group’s history, perspectives, and language found in multicultural texts in oral and written responses (grade 6, standard 6)

The standards could be greatly improved by streamlining their content into tidier categories, perhaps by text type, and tightening the language within each. The prose is generally comprehensible, but some vague or unclear language taints the otherwise useful document. As such, the standards receive a score of two points out of three for Clarity and Specificity. (See Common Grading Metric, Appendix A.)

**Content and Rigor**

**Content Strengths**

The standards thoroughly address early reading, as in the following:

- **Demonstrate understanding of phonics by:**
  - decoding simple words using word-attack strategies including letter-sound correspondence for consonants spelled with one letter and with digraphs, short and long vowels spelled with one letter, diphthongs, consonant blends, r-controlled vowels, and long vowels spelled with more than one letter, including silent e
  - reading one- and two-syllable words with short- and long-vowel sounds spelled with common spelling patterns
  - identifying and reading words from common word families
  - recognizing base words and their inflectional forms (e.g., suffixes, -s, -es, -ed, -ing, -est, -er)
  - reading high-frequency, grade appropriate non-phonetic words with automaticity (grade 1)

Literary text is also handled comprehensively and rigorously across the grades, with such welcome concrete additions as this:

- Identify and explain connections between historical contexts and works of various authors, including Homer, Sophocles, and Shakespeare (grade 9)

The Louisiana standards also attempt to include American literature, as in these standard 6 expectations for grades 11-12:

- Analyze and critique the impact of historical periods, diverse ethnic groups, and major influences (e.g., philosophical, political, religious, ethical, social) on American, British, or world literature in oral and written responses (grades 11-12)
- Analyze and explain the significance of literary forms, techniques, characteristics, and recurrent themes of major literary periods in ancient, American, British, or world literature (grades 11-12)
- Analyze in oral and written responses the ways in which works of ancient, American, British, or world literature represent views or comments on life, for example:
  - an autobiography/diary gives insight into a particular time and place
  - the pastoral idealizes life in the country
  - the parody mocks people and institutions
  - an allegory uses fictional figures to express truths about human experiences (grades 11-12)
It would be better if American literature were addressed in earlier grades as well, but so few states address American literature at all that Louisiana is to be praised for including it in the later grades.

Louisiana’s writing standards contain many expectations that apply to the writing process, and they clearly delineate the desired characteristics of specific writing products. The expectations emphasize appropriate genres of writing at each grade level, such as exposition and narration in the earlier grades and persuasion in upper grades.

The expectations for listening and speaking are rigorous. They include specific expectations for active listening, effective speaking, group discussions, recitations, and formal presentations. The expectations acknowledge the importance of using Standard English.

Finally, Louisiana’s expectations for oral and written English language conventions are thoroughly addressed, primarily in the writing, but also in the speaking sections, as noted.

**Content Weaknesses**

Louisiana’s standards for reading could be improved in two ways. First, the state should clarify its priorities. The present standards include both rigorous expectations for early reading and vocabulary but also a number of often unmeasurable “reasoning” skills, making it hard to discern the state’s priorities for reading.

Second, Louisiana should append a reading list or a set of sample texts to illustrate the quality and complexity of reading that should be required of students at each grade level.

Minor improvements could also be made to the writing expectations, where complete paragraphs with topic sentences are not required until fourth grade. It would also be helpful to teachers to provide samples of acceptable student writing to illustrate expected levels of rigor. The standards could be improved and slightly more than 5 percent of crucial content is missing, and Louisiana’s standards receive a Content and Rigor score of six points out of seven. (See Common Grading Metric, Appendix A.)

**The Bottom Line**

Louisiana’s standards treat both literary and non-literary texts in more systematic detail than the Common Core, addressing the specific genres, sub-genres, and characteristics of both text types. Louisiana also more clearly prioritizes grade-appropriate genres in its writing standards and provides more detailed expectations for oral presentations.

On the other hand, Common Core includes samples of student writing to clarify grade- and genre-specific writing expectations, as well as a reading list to provide guidance about the quality and complexity of texts that students should be reading each year. In addition, the Common Core includes standards explicitly addressing foundational U.S. documents. Such enhancements would benefit Louisiana’s already-strong standards.

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1 Louisiana’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, including tutoring lessons and assessment guides that were not reviewed in 2010. 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.) Through this new lens, Louisiana’s grade dropped from an A to a B-plus. The complete 2005 review can be found here: [http://www.edexcellence.net/detail/news.cfm?news_id=337&pubsubid=1032#1032](http://www.edexcellence.net/detail/news.cfm?news_id=337&pubsubid=1032#1032).
Louisiana • Mathematics

Overview
Louisiana’s standards are well presented and easy to read. The K-8 standards are often strong, though there are a few weaknesses in the development and prioritization of arithmetic. High school, while strong in places, is missing much of the essential content.

General Organization
The K-12 grade-level standards are organized by six content strands such as Numbers and Number Relation, and Geometry. Individual grade-level standards are included for grades 1-10, and the standards for grades 11-12 are combined.

Clarity and Specificity
For the most part, standards are well organized and easy to read. Statements are generally concise and clear, such as:

- Use the symbols <, >, and ≠ to express inequalities (grade 3)
- Measure length to the nearest quarter-inch and [millimeter] (grade 4)
- Factor whole numbers into primes (grade 6)

However, not all of the standards are clear. In particular, the term “real-life” is used frequently and detracts from the specificity of the standards, as in:

- Apply concepts of congruence, similarity, and symmetry in real-life situations (grade 3)

This focus on real-life eventually culminates in expectations that are not stated clearly and that require college-level mathematics to be covered rigorously:

- Use discrete math to model real-life situations (e.g., fair games, elections) (grade 10)
- Determine the family or families of functions that can be used to represent a given set of real-life data, with and without technology (grades 11-12)

In high school, the organization of the standards by strand is not helpful. Standards on specific topics, such as linear equations or quadratics, may not appear together but are scattered throughout the strands. Moreover, some standards do not make it clear what students are expected to know or what kinds of problems they should be able to solve. They are overly broad and subject to much interpretation on the part of the reader:

- Generalize and represent patterns symbolically, with and without technology (grade 10)
- Model and solve problems involving quadratic, polynomial, exponential, logarithmic, step function, rational, and absolute value equations using technology (grades 11-12)
Louisiana • Mathematics

In K-8, most of the standards are clear and specific. However, not all of them are, and many of the standards at the high school level are overly broad. Since the standards “do not quite provide a complete guide to users” (see Common Grading Metric, Appendix A), they receive a Clarity and Specificity score of two points out of three.

**Content and Rigor**

**Content Priorities**

Louisiana does not provide any guidance as to priorities. When arithmetic should be the focus, standards addressing arithmetic comprise less than one-third the total number of expectations. This means that arithmetic is not adequately set as a priority.

**Content Strengths**

The standards cover the structure of arithmetic such as commutativity, associativity, and distributivity as well as the inverse nature of addition and subtraction and of multiplication and division. Expectations for arithmetic are stated clearly, though as discussed below, they do not specify fluency or standard methods. The number line is introduced early and used throughout. Word problems and related material are supported with standards such as:

- Compare U.S. and metric measurements using approximate reference points without using conversions (e.g., a meter is longer than a yard) (grade 3)
- Count money, determine change, and solve simple word problems involving money amounts using decimal notation (grade 4)
- Calculate, interpret, and compare rates such as [dollars per pound], [miles per gallon], and [miles per hour] (grade 6)

While the high school content is not complete, there are some rigorous standards. For example:

- Write the equation of a line parallel or perpendicular to a given line through a specific point (grade 10)
- Solve quadratic equations by factoring, completing the square, using the quadratic formula, and graphing (grades 11-12)

**Content Weaknesses**

The development of whole-number arithmetic is straightforward, but not quite sufficient. For example, “know” appears in many of the state standards, but its meaning varies from “commit to memory” to “be able to compute.” Thus, the standards containing “know,” as in the example below, 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.

Arithmetic expectations are stated, but fluency and standard algorithms are not specified, as in:

- Add and subtract numbers of 3 digits or less [sic] (grade 3)
- Multiply 3-digit by 1-digit numbers, 2-digit by 2-digit numbers, and divide 3-digit numbers by 1-digit numbers, with and without remainders (grade 4)

In addition, the use of calculators in grade 3 could undermine students’ mastery of arithmetic:

- Determine when and how to estimate, and when and how to use mental math, calculators, or paper/pencil strategies to solve addition and subtraction problems (grade 3)

Moreover, the standard seems to leave the decision to use a calculator to replace standard computational methods in the hands of the students. Also, in the continual development of arithmetic, common denominators for fractions are not mentioned.

High school geometry is not adequate. Foundations are missing, as are proofs for most of the standard theorems. There are no constructions, and congruence is covered only sparsely by this standard:
Determine angle measures and side lengths of right and similar triangles using trigonometric ratios and properties of similarity, including congruence (grade 10)

The development of quadratic equations is missing some details. There are very few standards specifically about quadratics. The vertex form of a quadratic equation is not developed and max/min problems involving quadratics are not specified.

Finally, polynomial arithmetic is not covered and some of the STEM-ready content is missing, including inverse trigonometric functions and polar coordinates.

Arithmetic is not a priority in elementary school and its development, although straightforward, is not adequate. High school has some rigorous standards but is missing much of the essential content. These serious problems result in a Content and Rigor score of three points out of seven (see the Common Grading Metric, Appendix A).

The Bottom Line
With their grade of C, Louisiana’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 Pelican State has in place today.

1 Louisiana’s mathematics grade-level expectations have not changed since Fordham’s last evaluation, the State of State Math Standards 2005, though, the 2005 review also reviewed the Content Standards Foundations Skills (1997). Even with these changes, as well as potential differences between our previous and current grading metric (see Appendix C for a complete explanation of changes in criteria), Louisiana’s grade did not change. Find the 2005 Fordham report here: http://www.edexcellence.net/detail/news.cfm?news_id=338&pubsubid=1160#1160.