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

Clarity and Specificity: 2/3

(Common Core Grade: B+)

6/7

8/10

Content and Rigor:

Total State Score:

GRADE

Georgia • English Language Arts

DOCUMENTS REVIEWED

Georgia Performance Standards for English Language Arts and Reading: Grades K-5. June 12, 2008. Accessed from: https://www.georgiastandards.org/Standards/pages/BrowseStandards/ELAStandardsK-5.aspx

Georgia Performance Standards for English Language Arts and Reading: Grades 6-8. June 12, 2008. Accessed from: https://www.georgiastandards.org/Standards/pages/BrowseStandards/ELAStandards6-8.aspx

Georgia Performance Standards for English Language Arts and Reading: Grades K-5. June 12, 2008. Accessed from: https://www.georgiastandards.org/Standards/pages/BrowseStandards/ELAStandards9-12.aspx

Overview

The Georgia ELA standards are generally well presented and include most of the content necessary for a rigorous, K-12 curriculum.

General Organization

The Georgia state ELA standards are organized into broad content strands.

Three strands are common to all grade levels: Reading; Writing; and Speaking, Listening, and Viewing. A "conventions" strand is included for grades 3-12 and a "reading across the curriculum" strand for middle and high school.

Each strand is broken down into sub-strands, and then into grade-specific standards.

Clarity and Specificity

The Georgia K-12 ELA standards are reasonably well organized and clear, with little vague language or jargon. In addition, the state provides helpful criteria for writing expectations across genres, as well as clear expectations about the number of books that should be read in each grade.

Clarity, however, is a mixed bag. Some standards are very clear and specific, such as the following third-grade vocabulary standard:

Identifies and infers meaning from common root words, common prefixes (e.g., un-, re-, dis-, in-), and common suffixes (e.g., -tion, -ous, -ly) (grade 3)

But others need greater detail or examples to clarify expectations, such as:

Uses general dictionaries, specialized dictionaries, thesauruses, or related references as needed to increase learning (grade 9)

In a few areas, Georgia's standards could be organized more clearly. For example, the genre-specific writing standards are grouped together, rather than by genre, making it difficult to differentiate between standards that are common to all genres and those that are specific to a particular genre. In addition, rather than being grouped together as part of one specific strand, the research standards are dispersed across separate strands, which makes it hard to track the progression of content within and across grades.

Labels are a problem, too. For example, in fourth grade, two standards are labeled ELA4R1 but presented separately. One is focused on literary texts and includes nine expectations (labeled "a-i"). Another is focused on informational texts and

includes eight expectations (labeled "a-h"). This makes tracking student mastery of essential standards difficult.

Taken together, the inclusion of vaguely worded standards and the minor flaws in organization noted above earn Georgia two points out of three for Clarity and Specificity. (See *Common Grading Metric*, Appendix A.)

Content and Rigor

Content Strengths

The early reading standards are detailed and outline clear expectations for phonics, phonemic awareness, and fluency. For example:

The student demonstrates the relationship between letters and letter combinations of written words and the sounds of spoken words. The student

- a. Demonstrates an understanding that there are systematic and predictable relationships between print and spoken sounds.
- b. Recognizes and names all uppercase and lowercase letters of the alphabet...
- e. Applies learned phonics skills when reading words and sentences in stories (Kindergarten)
- The student demonstrates the ability to read orally with speed, accuracy, and expression. The student
- a. Reads previously taught high-frequency words at the rate of 30 words correct per minute
- b. Reads previously taught grade-level text with appropriate expression (Kindergarten)

The high school standards include a course devoted to "Reading and American Literature" which provides detailed expectations that reflect the importance of reading American literature that reflects our common literary heritage. For example:

The student identifies, analyzes, and applies knowledge of theme in a work of American literature and provides evidence from the work to support understanding. The student...

d. Analyzes and compares texts that express universal themes characteristic of American literature across time and genre (i.e., American individualism, the American dream, cultural diversity, and tolerance) and provides support from the texts for the identified themes (high school American literature)

The expectations for the study of literary and non-literary texts are generally strong and delineate an appropriate progression of content and rigor across grade levels.

The elementary writing standards describe specific criteria for narrative, informational, and persuasive writing as well as for response to literature, such as:

The student produces informational writing (e.g., report, procedures, correspondence) that:

- a. Engages the reader by establishing a context, creating a speaker's voice, and otherwise developing reader interest
- b. Frames a central question about an issue or situation
- c. Creates an organizing structure appropriate to a specific purpose, audience, and context
- d. Includes appropriate facts and details
- e. Excludes extraneous details and inappropriate information
- f. Uses a range of appropriate strategies, such as providing facts and details, describing or analyzing the subject, and narrating a relevant anecdote
- g. Draws from more than one source of information such as speakers, books, newspapers, and online materials
- h. Provides a sense of closure to the writing (grade 4)

These criteria demonstrate increasing rigor from grade to grade.

While students are expected to study all writing genres each year, at the high school level the state indicates a clear focus area for each year. For example, the ninth-grade writing standards are introduced with a note indicating that:

All modes or genres are practiced at each grade level; however, in order to achieve mastery, each grade level has a particular writing focus. Technical writing is the focus for 9th grade; by the end of 9th grade, the student will demonstrate competency in technical writing...(grade 9)

Detailed performance expectations follow this introductory paragraph, and the state prioritizes persuasive writing in tenth grade and expository in eleventh and twelfth.

Research is also emphasized appropriately throughout the grades. The standards for conventions and vocabulary are detailed, specific, and rigorous, and the state provides clear expectations for listening and speaking.

Content Weaknesses

While the standards provide very specific guidance about the *number* of texts students should be reading each year in grades 4-12—"a minimum of 25 grade-level appropriate books or book equivalents (approximately 1,000,000 words) per year from a variety of subject disciplines"—it supplies scant guidance about what constitutes "grade-appropriate" books. For instance, while titles and authors are referenced sporadically in the "sample tasks" that accompany the standards, the state provides no lists of exemplar texts or authors, or indication of the complexity of texts appropriate to specific grade levels.

Apart from the inclusion of a high school course devoted to American literature, the standards do not outline expectations for reading outstanding works of American literature or foundational documents that reflect our common heritage.

Finally, the standards addressing how to use multimedia techniques to present information are inadequate, particularly for grades K-8.

Although some content is missing, Georgia's ELA standards are reasonably strong and set forth most of the essential content necessary to guide rigorous, college preparatory curricula and instruction. Accordingly, they earn six points out of seven for Content and Rigor. (See *Common Grading Metric*, Appendix A.)

The Bottom Line

The Georgia K-12 ELA standards are better organized and easier to read than the Common Core. Essential content is grouped more logically, so that standards addressing inextricably linked characteristics, such as themes in literary texts, can be found together rather than spread across strands. The high school standards include a course devoted to "Read-ing and American Literature," which provides a greater number of more detailed and rigorous expectations that address the importance of reading American literature. Georgia also more clearly specifies genre-specific writing expectations, and better prioritizes writing genres at each grade level.

On the other hand, while Georgia only specifies the number of books that should be read in each grade, Common Core appends a list that specifies the quality and complexity of the reading students should do. In addition, Common Core includes samples of student writing to help clarify writing expectations across grades. Georgia would do well to incorporate such guidance into its standards.

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

Georgia • Mathematics

DOCUMENTS REVIEWED

Georgia Performance Standards K-5. September 11, 2008. Accessed from: https://www.georgiastandards.org/Standards/Pages/BrowseStandards/MathStandardsK-5.aspx

Georgia Performance Standards 6-8. September 11, 2008. Accessed from: https://www.georgiastandards.org/Standards/Pages/BrowseStandards/MathStandards6-8.aspx

Georgia Performance Standards 9-12. September 11, 2008. Accessed from: https://www.georgiastandards.org/Standards/Pages/BrowseStandards/MathStandards9-12.aspx

Overview

Georgia's standards are well organized and easy to read. They place arithmetic as a high priority, and some of the development is excellent, but the development of whole-number arithmetic is not quite complete. High school mathematics is detailed and covers most of the essential content with both depth and rigor.



(Common Core Grade: A-)	
Total State Score:	9/10
Content and Rigor:	6/7

General Organization

The standards are organized by strands such as "Number and Operations" and "Algebra." The grade level Performance Standards are listed within these strands, and are often subdivided into lists of more specific standards. There is also a set of content-free process standards in each strand that developers say is "essential to mastering each of the mathematics content standards." One of the process standards in geometry, for instance, is "Students will solve problems (using appropriate technology)." For each grade there is a short introduction about the mathematics to be covered.

The high school organization is similar, only the material is presented by course. The courses include Algebra I and II, Geometry, Statistics, Advanced Algebra, and Pre-Calculus, among others. Each of the courses is grouped into broad categories called Mathematics 1 through Mathematics 4 and then, Accelerated Mathematics I and II (Mathematics I, for instance, includes Algebra, Geometry, and Statistics while Accelerated Mathematics II includes Pre-Calculus, Trigonometry, and Statistics).

Clarity and Specificity

The standards are well presented and easy to read. Most statements are concise and detailed, such as:

Students will tell time to the nearest five minutes and know relationships of time such as the number of seconds in a minute, minutes in an hour and hours in a day (grade 2) Identify the center, diameter, and radius of a circle (grade 3) Round a decimal to the nearest whole number or tenth (grade 4)

There are occasional lapses in clarity, as in the following standard, which is too broadly stated to be useful:

Investigate and explain the characteristics of a function: domain, range, zeros, intercepts, intervals of increase and decrease, maximum and minimum values, and end behavior (Mathematics 1)

Though not all standards are clear, Georgia's standards are generally well organized and easy to read and interpret and easily merit three points out of three for Clarity and Specificity. (See *Common Grading Metric*, Appendix A.)

Content and Rigor

Content Priorities

The proportion of the standards devoted to arithmetic is high. In fact, about half of them in the appropriate grades are about the development of arithmetic. Since arithmetic is the mathematical foundation in the early-middle grades, this appropriately prioritizes it.

Content Strengths

There is some strong material on the properties of arithmetic, such as:

Understand and use the inverse relation between addition and subtraction to solve problems and check solutions (grade 2)

Some of the material on more advanced arithmetic, such as fractions, is strong, including the following standards:

Know that when all fractional parts are included, such as three thirds, the result is equal to the whole (grade 2) Understand the fraction a/b represents an equal-sized part of a whole that is divided into b equal sized parts (grade 3) Find equivalent fractions and simplify fractions (grade 5) Understand division of whole numbers can be represented as a fraction ($a/b = a \div b$) (grade 5)

The standards explicitly develop common denominators, despite the unnecessary insertion of pedagogy (i.e., "concrete [and] pictorial"):

Explore finding common denominators using concrete, pictorial, and computational models (grade 5)

Also, the development of the concept of area is strong as is illustrated by the following sequence:

Understand the meaning of the square unit and measurement in area (grade 3)

Determine the area of squares and rectangles by counting, addition, and multiplication with models (grade 3) Derive the formula for the area of a parallelogram (grade 5) Derive the formula for the area of a triangle (grade 5) Find the areas of triangles and parallelograms using formulae (grade 5)

High school content is rigorous. Important algebraic skills are explicit:

Add, subtract, multiply, and divide polynomials (Mathematics 1) Add, subtract, multiply, and divide rational expressions (Mathematics 1)

The analysis of quadratics is both thorough and detailed, as in:

Investigate and explain characteristics of quadratic functions, including domain, range, vertex, axis of symmetry, zeros, intercepts, extrema, intervals of increase and decrease, and rates of change (Accelerated Mathematics 1) Convert between standard and vertex form (Accelerated Mathematics 1)

Geometry is also well covered. Foundations are included and standard theorems are covered, for example:

Understand and use congruence postulates and theorems for triangles (SSS, SAS, ASA, AAS, HL) (Mathematics 1)

In addition, STEM-ready content is well covered including most necessary trigonometry.

Content Weaknesses

There are some weaknesses in the development of arithmetic. Instant recall of basic facts is not explicit.

In the continued development of arithmetic, standard algorithms are not mentioned, and fluency is only sometimes required:

Students will build fluency with multi-digit addition and subtraction.

a. Correctly add and subtract two whole numbers up to three digits each with regrouping (grade 2)

Students will solve problems involving multiplication of 2-3 digit numbers by 1- or 2-digit numbers (grade 4)

Solve problems involving division by 1- or 2-digit numbers (including those that generate a remainder) (grade 4)

In addition to the problems above, the standards are weak on including the number line and they do not explicitly include many references to word problems—there should be more.

In high school, the coverage of linear equations is missing a few basics, such as explicit mention of point-slope form and obtaining a linear equation from two points.

The high school content is generally both thorough and rigorous, though there are a few gaps with linear equations. Arithmetic in the early grades is well prioritized, but the development has a few weaknesses. These few "shortcomings" result in a Content and Rigor score of six points out of seven. (See *Common Grading Metric*, Appendix A.)

The Bottom Line

With some minor differences, Common Core and Georgia both cover the essential content for a rigorous K-12 mathematics program. Georgia's standards are briefly stated and usually clear, making them easier to read and follow than Common Core. In addition, the high school content is organized so that standards addressing specific topics, such as quadratic functions, are grouped together in a mathematically coherent way. The organization of the Common Core is more difficult to navigate, in part because standards dealing with related topics sometimes appear separately rather than together.

The chief weakness in Georgia's standards stems from their lack of specific content expectations in the development of arithmetic. Common Core provides admirable focus and explicitly requires standard methods and procedures, and the inclusion of those essential details would enhance Georgia's standards.