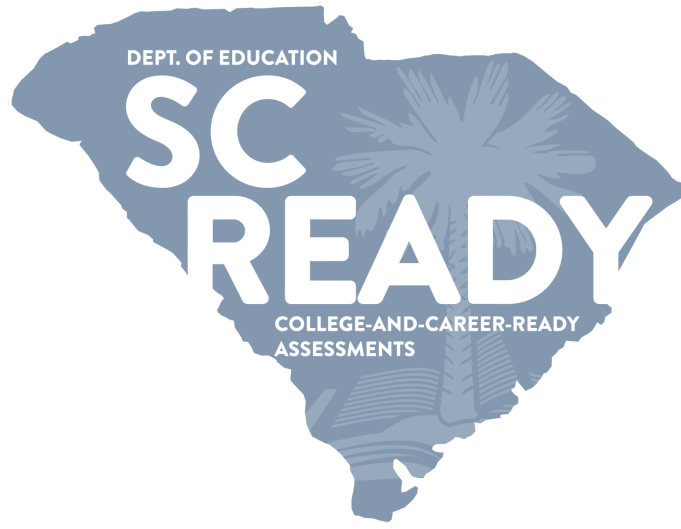




2026 Data Review Report

Statewide Instructional Recommendations

Math Grade 6

Office of Assessment and Standards

October 2026

Contents

Introduction	1
Statewide Trends for Math Grade 6.....	3
Strengths	3
Areas for Growth	3
Committee Observations and Recommendations	4
General Observations and Recommendations	4
Vocabulary:	4
Connections and Representations:	4
Mathematical Tools:.....	4
Data, Probability, and Statistical Reasoning	5
6.DPSR.1.1	5
6.DPSR.1.2	5
6.DPSR.1.3	6
Measurement, Geometry, and Spatial Reasoning	6
6.MGSR.1.1	6
6.MGSR.3.1	7
6.MGSR.3.2	7
Numerical Reasoning	8
6.NR.2.3	8
6.NR.2.4	8
Patterns, Algebra, and Functional Reasoning	8
6.PAFR.1.1.....	8
6.PAFR.2.1.....	9
6.PAFR.2.5.....	9
6.PAFR.3.1.....	9
6.PAFR.3.4.....	10

Introduction

The [South Carolina Department of Education](#) (SCDE) Office of Assessment and Standards (OAS) extends our deepest gratitude to the hard-working teachers across our state. We are especially thankful for the educators who dedicate their time to participate in our annual assessment meetings. Your collaboration is what makes these reports possible.

What is the Data Review Committee?

As part of our [Test Development Cycle](#) every year, the SCDE gathers educators from across South Carolina for virtual Data Review Meetings. This group of dedicated educators forms our *Data Review Committee*, a specialized team tasked with examining state-level, item-by-item test data to better understand student ability and identify where students are struggling with specific standards.

From Numbers to Strategies

For this report, the Committee focused on the Spring SC READY Math Grade 6 assessment, which measures the *2025 South Carolina College- and Career-Ready Mathematics Standards (2025 SC CCR Math Standards)*. While every standard is assessed on the SC READY Math Grade 6 assessment, this report selectively highlights key standards where statewide trends point to clear, actionable recommendations for the classroom.

The Committee looks closely at the *quantitative* data, how students across the entire state responded to test items. They use these numbers to produce a *qualitative* analysis. In other words, they look at the data to figure out *why* students are struggling, and then they offer actionable, instructional recommendations on how to improve student achievement on those topics.

A Redesigned Format

Based directly on feedback from teachers across the state, we have redesigned the Data Review Reports to be more useful for your daily practice. The reports are now organized by standards and indicators. Within each section, you will find:

- **Committee Observations:** What the data tells us about student understanding and misconceptions.
- **Instructional Recommendations:** Practical strategies to address learning gaps.

How to Use This Report

The goal of this report is to provide clear suggestions to improve instructional practice and inspire collaborative discussions at your school. Offered in a spirit of helpfulness and collaboration, these recommendations reflect broad, statewide trends. Because every

classroom is unique, we recognize that certain identified gaps or suggestions may not align with every individual school or district.

Get Involved and Learn More

The OAS provides numerous resources for districts, schools, and teachers to help clarify the standards, understand how our assessments align with them, and make the most of test data.

Our [Assessment Quick Links for Teachers Page](#) includes the following resources for mathematics educators:

- [Applications for Assessment Committees](#): Apply to Content Review Committees, Data Review Committees, and more.
- [Test Blueprints](#): Broadly outline the test construct in terms of content and rigor.
- [Assessment Specifications for Teachers](#): Guidance on how standards are assessed on the SC READY (distinct from how a concept is taught).
- [Data Review Reports](#): Access older reports from various content areas.
- [Item Type Descriptions](#): Breakdown of the item formats students encounter on SC READY.
- [Sample Items](#): Grade- and content-aligned items demonstrating SC READY formats.
- [Online Tools Training \(OTT\)](#): Allows students to practice interacting with sample items in the official testing environment.
- [Calculator Requirements](#): Guidelines for use and allowable calculators.
- [SC READY Math Reference Sheets](#): Reference sheets for SC READY Math Grades 4-8.

Our [Math Standards Page](#) includes:

- [Standards](#): The *2025 South Carolina College- and Career-Ready Mathematics Standards*
- [Instructional Resources](#): Support materials designed to help teachers instruct the *2025 SC CCR Math Standards*.
- [Professional Learning Opportunities](#): District-level professional learning menus and recordings of past webinars.

Interested in Statewide Assessment Data?

[State-level assessment data](#) is published each year on our website. You can explore the [2026 SC READY Test Scores](#) directly through our online interactive tools or download full data files from the right side of the page.

Want to make an impact?

If you are interested in joining an annual assessment committee, we invite you to [apply through our website!](#)

Statewide Trends for Math Grade 6

Strengths

Statewide performance trends indicate that many Grade 6 students demonstrated strengths in applying operations with decimals and reasoning about probability. Students were generally successful in adding, subtracting, multiplying, and dividing multi-digit positive decimals to solve mathematical and real-world problems.

Positive trends were also evident in students' ability to connect the probability of a random event, expressed as a value from 0 to 1, to its likelihood of occurring, demonstrating an understanding of probability as a measure of chance.

Areas for Growth

Overall, Grade 6 students seemed to struggle with some aspects of coordinate graphing, particularly when working beyond the first quadrant. Students showed a need for additional practice identifying and plotting ordered pairs in all four quadrants and interpreting the relationship between the x- and y-coordinates.

Grade 6 students also demonstrated challenges recognizing the correct order of coordinates when locating points on a graph. In addition, some students were able to plot points successfully but struggled to use the plotted vertices to complete a figure by connecting the points to form a polygon.

Students would benefit from continued experiences creating, labeling, and interpreting coordinate planes, as well as graphing geometric figures from given coordinates. Continued emphasis on the structure of the coordinate plane and the meaning of ordered pairs may strengthen students' accuracy and confidence when graphing flexibly in unfamiliar situations.

Committee Observations and Recommendations

The following instructional recommendations, identified by this year's Data Review Committee, provide actionable strategies to improve student achievement.

General Observations and Recommendations

Vocabulary:

- Use familiar language as an entry point but consistently transition students to precise mathematical vocabulary (e.g., move from "the common number is 3" to "the LCM is 3").
- Provide opportunities for students to apply vocabulary in context through sorting, matching, discussion, and problem-solving tasks that require interpretation and application rather than memorization of definitions.
- Consider collaborating with your Professional Learning Communities (PLCs) to determine whether formative assessment of vocabulary would support student learning.

Connections and Representations:

- Ensure students are comfortable with the different symbols and representations for multiplication and division.
- Provide regular opportunities for students to interpret, analyze, and create mathematical representations, including graphs, data displays, and contextual models.
- Connect new learning to prior knowledge and authentic situations to help students develop a deeper understanding of mathematical concepts, procedures, and representations.
- Connect mathematical concepts to real-world situations and prior learning.
- Connect independent and dependent variables with science.
- Engage students in mathematical discourse by having them justify their reasoning and analyze misconceptions. For example, use Four Corners or Philosophical Chairs to debate the likelihood of events.

Mathematical Tools:

- Using both horizontal and vertical number lines to model mathematical relationships emerged as a common instructional theme and can support students' understanding of integers, decimals, operations, inequalities, solution sets, probability, likelihood, and other mathematical concepts. For example, students could plot benchmark fractions to discuss likelihood; helping to understand the value of equivalent rational numbers.
- Use virtual manipulatives to help support spatial reasoning in Geometry and Measurement.

The following observations and recommendations for the selected indicators in this report are organized by the reporting categories identified in the [SC READY Math Grade 6 Test Blueprint 2026-27](#): **Data, Probability, and Statistical Reasoning, Measurement, Geometry, and Spatial Reasoning, Numerical Reasoning, and Patterns, Algebra, and Functional Reasoning.**

Data, Probability, and Statistical Reasoning

6.DPSR.1.1

Observation: The committee observed that many students demonstrated difficulty identifying the sample size within a statistical situation and often confused the sample with the population.

Instructional Recommendations:

- Conduct classroom surveys and collect real student data to help students identify the population, sample, and sample size in authentic contexts.
- Use card sorts with sample and population scenarios to provide practice matching each component to the correct description.
- Use the Three Reads Math Language Routine (MLR) to help students determine what each number represents and make sense of the context before solving.
- Implement card sorts in which students match scenarios with the corresponding sample, population, and sample size and justify their reasoning using precise vocabulary.
- Teach students to highlight key words and numerical information in a problem and identify what each number represents within the context of the survey or study.

6.DPSR.1.2

Observation: Teachers noticed that students struggled when asked to construct a missing component of a box plot.

Instructional Recommendations:

- Ensure students know the vocabulary. Students need to learn how to "speak" as mathematicians. Reinforce directional vocabulary, such as vertical and horizontal, when interpreting and discussing graphical representations.
- Provide opportunities for students to label box plots, identify missing information, complete unfinished box plots, and explain what each component represents using mathematically precise language.
- Engage students in Notice and Wonder activities with box plots to promote discussion about the purpose and meaning of each component.
- Incorporate matching and sorting activities in which students connect data sets to box plots and justify how the display represents the distribution of the data.
- Use teacher-modeled box plots and laminated copies to support students in labeling and interpreting the five-number summary.

6.DPSR.1.3

Observation: High-performing students appeared to struggle with identifying a box plot as the most appropriate display for determining the median when compared with other data displays.

Instructional Recommendations:

- Provide opportunities for students to compare and interpret different data displays. Ask students, “What does this graph tell me?” and “What information can be determined from this display?” Discuss the information each representation provides, the strengths and limitations of different displays, and which displays allow the median to be identified without additional calculations.
- Incorporate error analysis and card-sort activities that require students to match data displays with the statistical measures they best support and explain their choices.
- Encourage mathematical discourse. Use Problem-Based Learning (PBL). Assign groups of students a different type of graph and ask them each to find the median from their graph and watch discussions happen.

Measurement, Geometry, and Spatial Reasoning

6.MGSR.1.1

Observation: A common misconception in measurement was that students confused finding the area of a triangle with finding the area of a rectangle.

Instructional Recommendations:

Emphasize conceptual understanding by having students determine the area of a rectangle and then decompose it by drawing or cutting along a diagonal to create two congruent triangles, reinforcing that each triangle has half the area of the rectangle. This activity can be completed with physical models or digital tools, consider using this word problem strategy:

- K- What do you know?
- W- What do you want to know?
- S- What can we use to solve it?

6.MGSR.3.1

Observation #1: Students may benefit from additional support identifying the location of an ordered pair when the point lies on the x-axis or y-axis. Students also may need opportunities to strengthen their understanding of how the x- and y-coordinates determine the direction and distance moved when plotting points on the coordinate plane.

Instructional Recommendations:

Before introducing ordered pairs on a coordinate plane, connect to prior understanding of plotting points on horizontal and vertical number lines. Emphasize that a coordinate plane is an intersection of two number lines. Connect this meaning of the ordered pair. Have students create and label their own coordinate planes to develop familiarity with the x-axis, y-axis, quadrants, and ordered pairs. Have students plot points without relying on pre-labeled graphs. Make sure they know that the x- and y-axis are also locations, not just the quadrants. Use graph paper and multiple colors to distinguish the x- and y-coordinates.

Observation #2: The teachers observed that the scale on a coordinate grid did not show every number. Although every value was represented, only even numbers were displayed on the axes.

Instructional Recommendations:

- Connect graph scales to students' prior understanding of skip counting from the elementary grades.
- Provide opportunities for students to interpret coordinate grids with scales that count by intervals other than 1, such as 2s, 5s, or 10s.
- Encourage students to determine the value of each tick mark before plotting or identifying points on a coordinate plane.
- Have students compare coordinate grids with different scales and discuss how the scale affects the location of points.

6.MGSR.3.2

Observation: The committee observed that many high-achieving students correctly plotted the vertices; however, they did not plot the specified polygon.

Instructional Recommendation:

Use graphing activities that require students to create pictures or cartoons by plotting and connecting points in the correct order.

Numerical Reasoning

6.NR.2.3

Observation: The committee observed that students demonstrated difficulty interpreting positive and negative values in context, including understanding the meaning of zero.

Instructional Recommendations:

- Use number lines to model real-world situations involving gains, losses, profits, debts, elevations, and temperatures. Include money situations such as amounts earned, spent, owed, paid, or received.
- Have students sort scenarios using a three-column T-chart (negative, zero, positive) and explain what each value represents in context.
- Teach not only the meaning of zero, but also what positive and negative integers represent.

6.NR.2.4

Observation: The committee observed that students demonstrated difficulty interpreting and applying the concept of absolute value.

Instructional Recommendations:

- Provide students with laminated number lines and dry-erase markers to model movement and compare integer values.
- Emphasize reasoning: when you walk backward, you are still traveling, but the distance traveled is never negative!

Patterns, Algebra, and Functional Reasoning

6.PAFR.1.1

Observation: The committee observed that students demonstrated difficulty connecting related vocabulary across representations. Student responses suggest that concepts are often understood in isolation rather than as connected mathematical ideas.

Instructional Recommendations:

- Connect mathematical vocabulary to prior learning and real-world examples, such as relating input/output to independent/dependent variables and exploring word roots and prefixes.
- Use sentence starters such as “_____ depends on _____.”
- Teachers shouldn't teach concepts in isolation but help students see the different representations.

6.PAFR.2.1

Observation: The committee observed that students confused the mathematical terminology used to describe parts of algebraic expressions.

Instructional Recommendations:

- Reinforce the meaning of the term coefficient by connecting it to the prefix co-, meaning “together,” to help students understand that a coefficient works together with a variable in an expression.
- Create anchor charts in real-time to support identifying parts of an algebraic expression.

6.PAFR.2.5

Observation: The committee observed that students demonstrated difficulty translating verbal statements into algebraic equations, particularly when interpreting relational phrases such as *less than* and *more than*. Students appeared to struggle when the order of the words in the statement did not match the order of the expression or equation. For example, a concert ticket costs \$8 less than the price of a festival pass, p ,”. Some students may write $8-p$ instead of $p-8$, where p represents the price of the festival pass.

Instructional Recommendations:

- Make sure students have practice writing equations from a real-world problem.
- Use number-talk activities (e.g., “I am thinking of a number that, when decreased by 10, equals 56”) to develop students' ability to translate verbal statements into equations.
- Provide targeted practice with “turn-around” phrases, such as *less than* and *more than*, that require students to reverse the order when writing equations.
- Students need to distinguish between the use of *less than* to represent subtraction in an expression and *is less than* to represent an inequality relationship.

6.PAFR.3.1

Observation: The committee observed that many students appeared to view the solution set of an inequality as a limited set of values rather than a range of numbers that satisfy the inequality.

Instructional Recommendations:

- Make sure students know how to read inequality signs.
- Students should recognize the solution to an inequality as any number that makes the inequality true. Teach them how to check their work by choosing numbers and substituting them in. Then discuss what that means.
- Recognize that inequalities have infinitely many solutions and use number lines to model solution sets. Introduce the concept by having each student identify a different solution to the same inequality.

6.PAFR.3.4

Observation: Students did not recognize when a property of an algebraic expression was applied correctly.

Instructional Recommendations:

- Understanding the grouping symbol of $()$ as multiplication. Make sure students remember to multiply by all values inside of the parentheses when using the distributive property.
- Practice identifying what property is used when simplifying an expression (have each step of the problem listed and then off to the side have students identify what property was used).
- Bridge strategies from elementary school.
 - Connect the distributive property to elementary concepts of equal groups, such as 2 groups of 4.
 - Use area models to develop conceptual understanding of the distributive property and show how each term inside the parentheses is multiplied by the factor outside.
- Model distribution with arrows from the factor outside the parentheses to each term inside to reinforce that every term must be multiplied.
- Emphasize that $4(x+2)$ represents four groups of $(x+2)$. Use repeated addition, $(x+2)+(x+2)+(x+2)+(x+2)$ to build understanding of the distributive property.