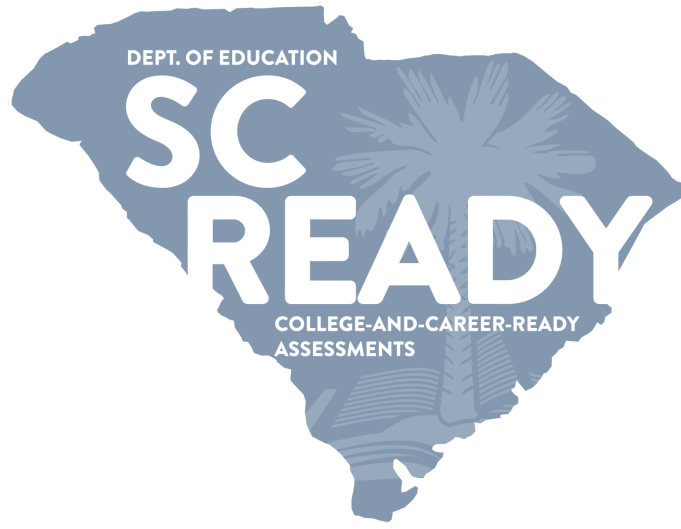




2026 Data Review Report

Statewide Instructional Recommendations

Math Grade 4

Office of Assessment and Standards

October 2026

Contents

Introduction	1
Statewide Trends for Math 3-5	3
Strengths	3
Areas for Growth	3
Committee Observations and Recommendations	4
General Observations and Recommendations	4
Data, Probability, and Statistical Reasoning (DPSR)	4
4.DPSR.1.2	4
4.DPSR.2.1	5
Measurement, Geometry, and Spatial Reasoning (MGSR).....	5
4.MGSR.1.1	5
4.MGSR.1.2	6
4.MGSR.2.2	6
4.MGSR.2.3	6
4.MGSR.3.1	7
4.MGSR.3.2	7
Numerical Reasoning (NR)	8
4.NR.1.3	8
4.NR.2.1	8
4.NR.2.3	8
4.NR.2.6	9
Patterns, Algebra, and Functional Reasoning (PAFR).....	9
4.PAFR.2.2.....	9
4.PAFR.2.4.....	9
4.PAFR.3.2.....	10
4.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 to 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 4 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 4 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 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.
- [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 Grades 3-5

Strengths

Grade 3: Students demonstrated strengths in their understanding of whole numbers. Students were generally successful in representing numbers using place value concepts and various forms of notation. They also showed proficiency in comparing and rounding whole numbers by analyzing the value of digits in different places.

Grade 4: Students demonstrated strengths in data analysis, particularly in their ability to collect and organize data. Students successfully represented data using dot plots and bar graphs and were able to identify key information displayed in these visual representations.

Grade 5: Students demonstrated strengths in geometry concepts, particularly in their understanding of the coordinate plane. Students were successful in plotting and locating points using ordered pairs. Many students could accurately identify key components of the coordinate system, including the origin and coordinates of points.

Areas for Growth

Grade 3: Students would benefit from additional support in developing conceptual understanding of decomposition strategies to solve multiplication problems. Students would also benefit from additional practice applying a variety of addition strategies, including compensation and decomposition.

Grade 4: Students would benefit from additional support in understanding and applying concepts of area and perimeter. While students may recognize these measurements, they need further opportunities to distinguish between the two concepts.

Grade 5: Students would benefit from additional support in data analysis and problem-solving. Specifically, students need opportunities to strengthen their understanding of statistical measures such as range and mode and to interpret what these measures reveal about a data set. Students would also benefit from additional practice solving two-step real-world problems involving data displays.

Committee Observations and Recommendations

After reviewing assessment data, the committee developed the following observations and instructional recommendations to inform classroom instruction for Grade 4. These recommendations are not intended to be a comprehensive review of all indicators, nor does their inclusion in this report imply greater importance than other indicators or content. All indicators should continue to be taught with the depth and rigor outlined in the *2025 SC CCR Mathematics Standards*.

General Observations and Recommendations

- Encourage students to draw visual models when solving.
 - Students often rush to perform calculations without first developing a clear understanding of the mathematical situation.
- Present numbers in nontraditional orders to build number sense.
 - Students often become accustomed to seeing numbers in standard ascending or descending order. Presenting numbers out of order encourages students to think more deeply about place value relationships.
- Build familiarity with mathematical vocabulary.
 - Students may understand mathematical concepts but struggle when mathematical vocabulary is used.
 - Consider embedding Measurement, Geometry, and Spatial Reasoning (MGSR) tasks into instruction throughout the year to ensure consistent exposure and meaningful application beyond a designated unit.
 - MGSR is rich in academic vocabulary, so ensure explicit teaching of vocabulary within these indicators throughout the year.
- Provide regular opportunities to use the [Online Tools Training \(OTT\)](#).
 - Incorporate the OTT throughout the year so students become comfortable with the digital tools and can focus on the mathematics during testing. For example, when working with **clock technology-enhanced items**, show students that the hour hand moves gradually throughout the hour as the minute hand advances, rather than remaining fixed on a single number.

Data, Probability, and Statistical Reasoning (DPSR)

4.DPSR.1.2

Observation: While completing a real-world problem, students misread the dot plot by focusing on the dots rather than the values on the horizontal axis.

Instructional Recommendation(s):

- Ensure students practice completing problems with the terms “at least,” and “more than.”
- Provide opportunities for students to discuss how to organize and display their collected data by asking questions such as, “Which graph(s) would represent our data best?” and “Which scale makes the most sense for our data?”

- Additionally, ask students, “What are you finding? What part of the graph are you looking at?”
- Use a whole-class “Notice and Wonder” activity with a graph, where each student shares a unique observation before any ideas are repeated. For example, when analyzing a dot plot of average daily recorded temperatures during the month of March, students might notice that 78 degrees Fahrenheit is the most common temperature, or the highest temperature recorded was 88 degrees Fahrenheit. Students may also identify important features such as the title and labels. By closely examining these details and discussing what they reveal, students are better prepared to use data to support their reasoning in real-world situations, such as determining if the month of March is a good month to plan an outdoor event or explaining seasonal weather patterns.

4.DPSR.2.1

Observation: Students were confusing the terms certain, possible, and impossible.

Instructional Recommendation(s):

- Provide students with 3 index cards. Each card has certain, possible, or impossible written on it. Read out a probability scenario and have students raise the card that describes the event.
- Provide students with time to explore simple events in a hands-on way.
 - Prompt them to, “Make a spinner that is certain ...” “Create a bag of marbles with an impossible probability ...”
- Include the phrase, “What is the likelihood ...?” when determining the probability of simple events.
- Make sure students are familiar with the words fair number cube or fair n -sided game piece. On SC READY these terms are used instead of dice or die.

Measurement, Geometry, and Spatial Reasoning (MGSR)

4.MGSR.1.1

Observation: Students calculated area instead of perimeter.

Instructional Recommendation(s):

- Teach students to label all sides when only one length and width are given.
- Reinforce that perimeter is the distance around a shape or plane figure.
- Provide visuals around your classroom. For example, using a window in your classroom, write the word P-E-R-I-M-E-T-E-R around the window frame.
- If students are using multiplication to find perimeter, ensure they write and verify the corresponding equation.

4.MGSR.1.2

Observation: Students miscalculated the width of a rectangle when given the area and length.

Instructional Recommendation(s):

- Encourage students to draw and label a rectangle, especially if a model is not given or whenever dimensions are missing.
- Using grid paper can help students visualize how the area is composed of rows and columns and determine whether their answer is reasonable.

4.MGSR.2.2

Observation: Students need additional support finding the start time when the end time and elapsed time are given.

Instructional Recommendation(s):

- Practice reading an analog clock, paying close attention to how the hour hand changes position throughout the hour as the minute hand advances.
- When completing elapsed time problems, use tools such as a number line.
- Make the connection that an analog clock is just like a number line.
- In addition to the number line, incorporate a graphic organizer to organize the provided and needed information from the problem. For example:

<u>Start Time</u>	<u>Elapsed Time</u>	<u>End Time</u>
?	27 minutes	4:51

- Provide practice with time interval word problems throughout the school year, not only during the unit on time. For example, recording the time when students begin a class assignment, the time they finish, and calculating how long it took them to complete the assignment.

4.MGSR.2.3

Observation: Students need more practice measuring length when the object is not aligned with zero on the ruler.

Instructional Recommendation(s):

- Ensure physical rulers are in the hands of all students.
- Complete a “Notice and Wonder” discussion about the ruler.
- Discuss and notice the distance between the endpoints of the object no matter where the object may be positioned on the ruler.
- Provide opportunities to complete a “Broken Ruler” activity. This can be done with a worksheet, or in a more hands-on way.
 - Print rulers and tear them so they are “broken.” The “broken ruler” could also be a ruler where the numbers have been left off altogether.
 - Have students measure objects found in the classroom and record their lengths.

- Have students contribute to a class height chart labeled in inches and centimeters to strengthen their understanding of length and measurement units.

4.MGSR.3.1

Observation: Given a collection of triangles, some students did not classify the triangles correctly.

Instructional Recommendation(s):

- Provide activities to learn the words isosceles, equilateral, and scalene. For example, use a graphic organizer like the Frayer Model for each triangle.
- Expose students to triangles in a variety of orientations, as well as triangles with and without a right-angle box.
- Discuss the attributes that can or cannot not classify triangles. For example:
 - “Can you have more than one obtuse angle within a triangle? Why or why not?”
 - “Can you have more than one right angle in a triangle? Why or why not?”
 - “Why can an equilateral triangle also be an isosceles triangle? Explain.”
- Implement a “Shape of the Day” activity by having students identify and discuss all the ways a given shape can be classified or named. Students can identify the attributes of triangles and connect the shape to real-world objects such as yield signs, roof trusses, bridge supports, pizza slices, or flags.

4.MGSR.3.2

Observation: Given a list of attributes, some students did not classify a quadrilateral correctly.

Instructional Recommendation(s):

- Provide opportunities to define “pair of parallel lines” and “set of parallel lines.”
- Ensure students understand that the opposite sides of a rectangle are equal. Use precise mathematical vocabulary and move away from defining a rectangle as two long sides and two short sides.
- Provide opportunities for students to compare and contrast shapes.
- Implement an “Always, Sometimes, Never” Routine. Students will evaluate quadrilateral statements and decide if the statement is always true, sometimes true, or never true. For example:
 - Display the statement, “Squares are rectangles.” Students must decide and defend their choice by applying their knowledge of quadrilaterals.
- Play, “What Am I?” Describe a quadrilateral. Then, have students draw and/or write the name of the quadrilateral being described.
- Refer to the [Quadrilateral Hierarchy Guide](#) found on the SCDE website.

Numerical Reasoning (NR)

4.NR.1.3

Observation: When ordering six-digit numbers, students focused only on comparing the digits in the ones period and did not consider the digits in the thousands period.

Instructional Recommendation(s):

- Help students develop a sense of magnitude rather than relying solely on digit-by-digit comparisons.
- Achieve this by using open number lines and determining where numbers would fall on the line.
- Complete an interactive open number line activity.
 - Stretch a piece of string across the classroom to create a number line.
 - Have students use clothespins to place numbered index cards on the line.
 - Ask students to explain and justify their placements.
- Avoid using overly simplistic comparison strategies, such as the "alligator mouth" analogy, when teaching comparison concepts.
- Reinforce the meaning of each comparison symbol.

4.NR.2.1

Observation: When given a fraction with a denominator of 10, students did not correctly write it in decimal form.

Instructional Recommendation(s):

- While teaching tenths and hundredths, always represent both the fraction and decimal form.
- Make connections using dimes and pennies. For example, one dime (\$0.10) represents one tenth, and one penny (\$0.01) represents one hundredth.
- Provide opportunities to shade a hundreds grid so students can develop a visual for understanding decimals and place value.

4.NR.2.3

Observation: Students need additional support to generate an equivalent fraction from a fraction model.

Instructional Recommendation(s):

- Use manipulatives to develop and support conceptual understanding.
- Complete paper folding activities to find equivalent fractions. Use sentence strips and printer paper to represent different models.
- Use a variety of real-life fraction representations, including food, distances, sports, etc.

4.NR.2.6

Observation: Some students struggled to compare fractions with unlike denominators and numerators.

Instructional Recommendation(s):

- Incorporate activities that apply reasoning strategies. For example:
 - Draw three zones on a large whiteboard. Label each zone, “Less than $\frac{1}{2}$,” “Equal to $\frac{1}{2}$,” and “Greater than $\frac{1}{2}$ ”
 - Have students draw fraction cards, place them in the correct zone, and justify their reasoning.
- Provide opportunities for students to discuss what is “half” of an odd number when working with fractions with denominators of 3, 5, and 25.
- Ensure students practice comparing fractions that are both “one-step” from a whole.
- Avoid teaching cross multiplication.

Patterns, Algebra, and Functional Reasoning (PAFR)

4.PAFR.2.2

Observation: Some students struggled to find the value of an expression that had both tenths and hundredths.

Instructional Recommendation(s):

- Students did well finding equivalent expressions but need more practice solving expressions with tenths and hundredths.
- Like in 4.NR.2.1, continue to use hundred grids and write both the fraction and decimal forms. Don’t rush through decimal place value.
- Discuss how fractions with tenths and hundredths are equivalent. For example, discuss why $\frac{6}{10}$ is equal to $\frac{60}{100}$.
- Ensure students are familiar with the terms tenths and hundredths. Avoid saying “31 over one hundred,” and instead say, “31 hundredths.”

4.PAFR.2.4

Observation: Students misinterpreted which fraction represented a division expression.

Instructional Recommendation(s):

- Expose students to division situations as both a fraction and an expression.
- When working with a real-world situation, provide time for students to think through the context and draw the scenario. Ensure students truly understand what is happening in the problem.
- Use a version of the Three Reads or Multiple Reads Routine:
 - After each read ask questions like:
 - What is happening? Can we retell it?
 - How can we get started? How do the numbers fit in?
 - What should we do next?

- Does our answer make sense?
- With this strategy look at the question being asked last. Ensure students comprehend the problem before computing.

4.PAFR.3.2

Observation: Students miscalculated while extending a numerical pattern given a rule.

Instructional Recommendation(s):

- Ensure all operations are being taught when providing a rule for a numerical pattern.
- Show numerical patterns in horizontal and vertical tables.

4.PAFR.3.4

Observation: Students miscalculated a two-step real-world problem.

Instructional Recommendation(s):

- Focus on *how* to get to the answer vs. what the answer is.
- A good way to apply this is by incorporating numberless word problems. This strategy helps support students' ability to know what operation is being performed and the question being asked.
- Ensure students are organizing their work. This can be done by modeling and highlighting students that are organizing well.
- Another organization strategy is using a simple graphic organizer, like one used with elapsed time problems. For example:

Avery is making treat bags for her birthday party. She puts 12 stickers in each treat bag and makes 11 treat bags. Then, she adds 24 extra stickers to share with her friends. How many stickers did she have altogether?

<u>First,</u> 12 x 11	<u>Then,</u> + 24	<u>Solution</u> ?
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