On November 18, 2016 the South Carolina Department of Education convened a panel of experts to review item data on SC READY. The panel looked at items with a high percentage of students answering correctly and items with a low percentage of students answering correctly. The discussions of that panel yielded the following recommendations.

Areas where third grade students are doing well include the following standards:

- 3.NSF.1.d
- 3.ATO.3
- 3.ATO.4
- 3.ATO.7
- 3.G.2
- 3.MDA.5.b

Teachers must keep up the rigor on these standards and, at the same time, work hard to improve performance on standards in which students did not perform as well.

Standards of concern:

- 3.NSBT.1
- 3.NSF.2.c
- 3.MDA.6
- 3.MDA.4

The panel recognizes the hard work of SC educators and offers the following as suggestions for ways to improve student success on SC READY.

- Give problems with real-world situations. Since many of the test items have some sort of context, there are not many non-contextual math problems.
- Have students work on grade-level appropriate problems where the result of an operation is given. This may be a sum, difference, product, or quotient. Then the student must find a missing addend, subtrahend, minuend, factor, dividend, or divisor. Students should also be able to solve these types of problems in a real-world context.
- Give students an opportunity to experience a long assessment in a single sitting at least once before taking SC READY.
- Have students practice recognizing numbers that are in a real-world context, including fractions.
- Students need to know that perimeter can be asked as “distance around.” In addition, have students practice with problems where only two sides of a rectangle are given and students must find perimeter (or distance around).
- Provide students with practice items that have perimeter and area in the same problem. Students had trouble when given a labeled quadrilateral and were instructed to keep the perimeter the same and find dimensions of a new quadrilateral with larger area.
- Work with students on creating line plots and also on reading given line plots. Give students practice items where they are provided a line plot, are asked to measure an object, then add that measurement to the original line plot.
• Provide students with practice items where a quantity is already rounded. Then ask what numbers from a list would round to the given number.
• Furnish students with practice items on all the variations possible in 3.ATO.8. This includes finding an unknown starting point.
On November 18, 2016 the South Carolina Department of Education convened a panel of experts to review item data on SC READY. The panel looked at items with a high percentage of students answering correctly and items with a low percentage of students answering correctly. The discussions of that panel yielded the following recommendations.

Areas where fourth grade students are doing well include the following standards:

- 4.NSBT.5
- 4.NSF.3.b
- 4.NSF.3.c
- 4.G.1

Teachers must keep up the rigor on these standards and, at the same time, work hard to improve performance on standards in which students did not perform as well.

Standards of concern:

- 4.NSF.4.c
- 4.NSF.7
- 4.ATO.3
- 4.G.4
- 4.MDA.1
- 4.MDA.2
- 4.MDA.5

The panel recognizes the hard work of SC educators and offers the following as suggestions for ways to improve student success on SC READY.

- Give problems with real-world situations. Since many of the test items have some sort of context, there are not many non-contextual math questions.
- Have students work on grade-level appropriate problems where the result of an operation is given. This may be a sum, difference, product, or quotient. Then the student must find a missing addend, subtrahend, minuend, factor, dividend, or divisor. Students should also be able to solve these types of problems in a real-world context.
- Give students an opportunity to experience a long assessment in a single sitting at least once before taking SC READY.
- Provide students with practice items that are missing the question to help with story problems. Then ask them to pose questions for a particular problem. Solve a few of their questions. Then reveal the question that went with the original problem. This allows students to think deeper about what questions can be asked in story problems.
- Have students draw pictures, especially when one is not provided. Given the perimeter and width of a quadrilateral, students were asked to find the length. Many of the students simply subtracted the two quantities.
- Be inclusive of all angle measures when working toward understanding the relationship of angle measurement to a circle. For instance, show students what a 1-degree angle looks like, and then explain to them, in a natural counting way, that 360 of them make up a circle. Along the way to 360 degrees point out other mathematically significant angles.
• Warn students to be careful of test questions with a change in the units. In particular, give students problems where the work is done in one unit and the answer is asked for in a smaller converted unit.
• Include a list of three or more numbers to order from least to greatest when comparing decimal numbers. In the list include numbers with the same and different integer parts. In addition, include numbers that terminate at the tenths and hundredths in the same list.
• Beware of teaching signal word such as “of” always meaning multiply. Use caution in teaching absolutes for dissecting story problems.
• Include practice items with fractional amounts of larger measurements. For instance, a problem can start with a half of a kilometer, and then add to that some number of meters.
• Students should practice questions that make them find an intermediate value given the beginning value and the end value.
• Warn students to be careful when multiplying a whole number times a proper fraction. Teach students to make a visual model in order to represent the situation.
• Have students practice with non-standard geometric shapes containing multiple lines of symmetry.
On November 18, 2016 the South Carolina Department of Education convened a panel of experts to review item data on SC READY. The panel looked at items with a high percentage of students answering correctly and items with a low percentage of students answering correctly. The discussions of that panel yielded the following recommendations.

Areas where fifth grade students are doing well include the following standards:

- 5.NSBT.1
- 5.ATO.1
- 5.G.2
- 5.MDA.3
- 5.MDA.3.b
- 5.MDA.4

Teachers must keep up the rigor on these standards and, at the same time, work hard to improve performance on standards in which students did not perform as well.

Standards of concern:

- 5.NSF.7.a
- 5.ATO.3.d
- 5.G.1.c
- 5.G.4
- 5.MDA.1

The panel recognizes the hard work of SC educators and offers the following as suggestions for ways to improve student success on SC READY.

- Give problems with real-world situations. Since many of the test items have some sort of context, there are not many non-contextual math problems.
- Have students work on grade-level appropriate problems where the result of an operation is given. This may be a sum, difference, product, or quotient. Then the student must find a missing addend, subtrahend, minuend, factor, dividend, or divisor. Students should also be able to solve these types of problems in a real-world context.
- Give students an opportunity to experience a long assessment in a single sitting at least once before taking SC READY.
- Inform students that for multiple select items they should choose more than one answer and less than all the answers.
- Provide practice items with an operation and unit conversion.
- Present students with two sequences of numbers with different pattern rules, and then have them observe patterns between corresponding terms. In addition, have students make true statements about the two different sequences.
- Discuss the difference between moving along an axis and from an axis. Students should know that each number in an ordered pair is distance from the origin along a particular axis or distance from the other axis. For instance, in the ordered pair (3, 8) if the focus is on the ‘x’ part of the ordered pair then one can say either of the following:
The point is 3 units to the right (in a positive direction) along the x-axis and then...

The point is 3 units from the y-axis and...

- Provide students with practice items that have fractional parts of large units. Then ask them to do operations.
- Have students practice dividing a fraction by a whole number. Encourage students to use fraction models to help.
- Furnish students with two-dimensional figures that are not the standard figure or even the standard orientation of the figure. Then have students compare the features of the two-dimensional figures. Further, in order to help students see the diversity of figures, give students the definitions and have them create the figures.
- One strategy suggested when teaching 5.G.3 is to use a mock trial or debate. Ask students “Is every square a parallelogram?” and let them discuss. Include various two-dimensional figures in the discussion. For instance, discuss triangles and quadrilaterals at the same time.
- Show students a number rounded to a particular value and then have students pick from a list of numbers all the numbers that would round to the given number.
On November 18, 2016 the South Carolina Department of Education convened a panel of experts to review item data on SC READY. The panel looked at items with a high percentage of students answering correctly and items with a low percentage of students answering correctly. The discussions of that panel yielded the following recommendations.

Areas where sixth grade students are doing well include the following standards:

- 6.NS.3
- 6.RP.2.a
- 6.DS.4
- 6.DS.5.a

Teachers must keep up the rigor on these standards and, at the same time, work hard to improve performance on standards in which students did not perform as well.

Standards of concern:

- 6.RP.3.d
- 6.GM.2
- 6.GM.4
- 6.DS.3

The panel recognizes the hard work of SC educators and offers the following as suggestions for ways to improve student success on SC READY.

- Give problems with real-world situations. Since many of the test items have some sort of context, there are not many non-contextual math problems.
- Have students work on grade-level appropriate problems where the result of an operation is given. This may be a sum, difference, product, or quotient. Then the student must find a missing addend, subtrahend, minuend, factor, dividend, or divisor. Students should also be able to solve these types of problems in a real-world context.
- Give students an opportunity to experience a long assessment in a single sitting at least once before taking SC READY.
- Allow students the time to propose various paths to the solution of a problem. Acknowledge that there are many paths to a correct answer and some are more efficient than others.
- Encourage students to go beyond knowing definitions and procedures. Students should have practice applying definitions. For instance, knowing how to calculate range is good only if they understand that they are finding a measure of a data set’s variability. From a student perspective, understanding goes beyond rote recognition of knowing what to subtract when s/he sees “range.”
- Given a net of a 3-D figure students should be able to use declared lengths to find missing lengths that contribute to the overall surface area. Student should explore various solution methods in order to come up with the most efficient way to find the surface area.
- Encourage students to create their own visual interpretation to help in understanding story problems.
- Balance practice with whole and fractional measurements when finding volume.
Expand data representations to include line plots of data. Then have students find measures of center and spread from the line plot representations.

Ensure students understand the conceptual difference between measures of center and spread and that they can calculate each one.

Explore different ways of calculating volumes of prisms composed of cubes, especially with fractional edge lengths. Have students decide on the most efficient method of finding the volume.

Have students practice with unit conversions of time as part of a larger problem.

Use double strip diagrams (tape diagrams) for proportional reasoning purposes.

Urge students to work through all steps of a multi-step problem and answer the question given, not just a question that might have gone with the first step.

Provide students with practice multiplying more than two fractions in a single problem.

Furnish students with teacher created practice on grid-ins and multi-select practice items.
On November 18, 2016 the South Carolina Department of Education convened a panel of experts to review item data on SC READY. The panel looked at items with a high percentage of students answering correctly and items with a low percentage of students answering correctly. The discussions of that panel yielded the following recommendations.

Areas where seventh grade students are doing well include the following standards:

- 7.RP.2.e
- 7.EEI.4.a
- 7.DSP.8.b

Teachers must keep up the rigor on these standards, and at the same time, work hard to improve performance on standards in which students did not perform as well.

Standards of concern:

- 7.NS.5
- 7.RP.2.d
- 7.GM.1
- 7.GM.4.d
- 7.GM.6.d

The panel recognizes the hard work of SC educators and offers the following as suggestions for ways to improve student success on SC READY.

- Give problems with real-world situations. Since many of the test items have some sort of context, there are not many non-contextual math problems.
- Have students work on grade-level appropriate problems where the result of an operation is given. This may be a sum, difference, product, or quotient. Then the student must find a missing addend, subtrahend, minuend, factor, dividend, or divisor. Students should also be able to solve these types of problems in a real-world context.
- Give students an opportunity to experience a long assessment in a single sitting at least once before taking SC READY.
- Allow students to discuss how they see non-standard 3-D figures. Have them answer some questions such as: Is it part of a larger figure? How many faces are there? Can we draw a net?
- Discuss possibilities for cross sectional cuts (vertically, horizontally, diagonally) that produced a given 3-D figure.
- Check for relationships among the faces when finding the surface area of a 3-D figure. Also, vary the faces for example, trapezoid, triangles, rectangles, etc.
- Instruct students to draw a picture when finding area from a story problem.
- The standard 7.NS.5 is really an extension. As a result, students should fluidly move between different number representations.
- Show examples and afford adequate practice creating equations that model real world problems involving proportional reasoning.
• Practice applying a given scale factor to determine the dimensions of a new figure and then find area and perimeter of the new figure. See p. 32 of the 7th grade support document.
• Emphasize that scale factors apply to dimensions not areas.
• Provide experiences for students to work with scale factors and areas to see how they relate to each other.
• Reiterate that theoretical probability is unaffected by short runs of an experiment.
• Have students practice items with one standard geometric figure inscribed in another standard geometric figure where they are given the area of one and asked to find the area of the other.
• Present students with practice on multi-step problems in a variety of contexts and standards.
On November 18, 2016 the South Carolina Department of Education convened a panel of experts to review item data on SC READY. The panel looked at items with a high percentage of students answering correctly and items with a low percentage of students answering correctly. The discussions of that panel yielded the following recommendations.

Areas where eighth grade students are doing well include the following standards:

- 8.F.1.c
- 8.F.5.a
- 8.GM.2

Teachers must keep up the rigor on these standards, and at the same time, work hard to improve performance on standards that did not test as well.

Standards of concern:

- 8.F.3
- 8.EEI.1
- 8.GM.9
- 8.DSP.3.c
- 8.DSP.4.b

The panel recognizes the hard work of SC educators and offers the following as suggestions for ways to improve student success on SC READY.

- Give problems with real-world situations. Since many of the test items have some sort of context, there are not many non-contextual math problems.
- Have students work on grade-level appropriate problems where the result of an operation is given. This may be a sum, difference, product, or quotient. Then the student must find a missing addend, subtrahend, minuend, factor, dividend, or divisor. Students should also be able to solve these types of problems in a real-world context.
- Give students an opportunity to experience a long assessment in a single sitting at least once before taking SC READY.
- Provide students with practice using and creating two-way tables to interpret data and compute relative frequencies.
- Include finding relative frequencies of conditional probabilities when using a two-way table.
- Present students with practice using functions where they are given an element of the domain and must find the corresponding element in the range. Pay particular attention to problems that give an element of the range and ask for the corresponding element of the domain.
- Ensure that students understand linear functions have a constant rate of change. Work with students to identify functions from tables and graphs. Have students plot the points from the tables if they need a visual representation.
- Furnish students with experiential learning and allow them to generalize rules when working with rigid transformations and congruence.
• Confirm that students know the formulas for solids referenced in the standards. In particular, students should know the volume of a cone, cylinder, and sphere.
• Begin teaching exponents with $3^2$ or $4^2$ to avoid common misconceptions that occur when one starts with $2^2$.
• Allow time for students to practice items with exponents involving multiple steps and/or different bases in the same problem.