



In second grade, a major emphasis is given to building number sense and place value understanding for numbers 0 to 999. Second-grade students need opportunities to use concrete objects, drawings, and equations to show that whole numbers can be combined and broken apart in multiple ways. Students also need experiences that allow them to use multiple ways to divide shapes into halves and fourths as a building block for understanding fractions. Additionally, as an introduction to the concept of rounding, students should identify the multiples of 10 that come before and after a two-digit number, and to which the number is closer. Another major focus for students in second grade will include understanding the equal sign and building a strong conceptual foundation of addition and subtraction by exploring the relationship between these operations.

Log on to the [SC Department of Education website](#), for the complete standards.

DATA, PROBABILITY, AND STATISTICAL REASONING

Second-grade students continue organizing data into graphs and charts, and build on this skill by using these displays of data to solve one-step word problems. These **Steps to Success** include:

- Create a survey question and collect data with up to four categories.
- Create a tally chart, picture graph, dot plot, and/or bar graph to display the data.
- Use the graph to answer questions and draw conclusions.

MEASUREMENT, GEOMETRY, AND SPATIAL REASONING

Second-grade students will identify and write the values of coins and bills. They will also count collections of mixed coins up to one dollar, and collections of mixed bills up to one hundred dollars. Second-grade students will use analog and digital clocks to tell and record time using multiples of five. Students will also learn to identify when to solve for perimeter and when to solve for area, as well as how to calculate these measurements. They will learn to identify, describe, classify, and compare 2-dimensional and 3-dimensional shapes based on their characteristics. These **Steps to Success** include:

- Identify and use tools to estimate and measure length of an object or distance to the nearest inch, foot, and/or yard.
- Tell and record time in five-minute intervals, identifying AM and PM.
- Determine and write the values of mixed sets of coins (¢) and bills (\$).
- Identify and describe real-world examples of triangles, quadrilaterals, pentagons, hexagons, octagons, and circles.
- Identify and describe real-world examples of cones, cubes, cylinders, rectangular prisms, square pyramids, and spheres.
- Classify shapes as polygons or non-polygons. Explain reasoning using shape attributes.
- Classify 2-dimensional shapes as triangles or quadrilaterals. Explain why.

NUMERICAL REASONING

Second-grade students will continue to count and combine items into groups of 10 or 100 to demonstrate place value concepts. Students will also use multiple models to compare two numbers. They will investigate building and breaking numbers into hundreds, tens, and ones. Second-grade students will also divide shapes to continue exploring fractions. These **Steps to Success** include:

- Read, write, and represent numbers up to 999.
- Model and describe how numbers 1 through 999 are made of hundreds, tens, and ones.
- Recognize how the value of a digit changes depending on its place within a number (ex. comparing the value of “3” in 13, 34, and 325)
- Use models, drawings, and/or equations to combine and break apart numbers through 999 to reflect the different combinations of hundreds, tens, and ones that make up each number.
- Identify ten more/ten less, and hundred more/hundred less than a given number up to three digits.
- Count by ones, tens, and hundreds forward and backward from any number within 999 and identify patterns.
- Compare models of two numbers within 999, and write a comparison statement using words and symbols is equal to ($=$), is less than ($<$), and/or is greater than ($>$).
- Identify the multiple of 10 that a two-digit number is closest to.
- Divide squares, rectangles, and circles into 2 or 4 equal-sized parts in multiple ways. Name the pieces as halves, half of, fourths, and fourth of.
- Recognize that when dividing a shape into parts, the parts become smaller as the number of parts increases.

PATTERNS, ALGEBRA, AND FUNCTIONAL REASONING

Second-grade students will use multiple models to reason and solve problems involving addition and subtraction. Students will use a variety of strategies to add and subtract within 100. Students will begin using arrays as an early connection between addition and multiplication. Second-grade students will also use reasoning to recognize, describe, continue, and create patterns. These **Steps to Success** include:

- Add and subtract two-digit numbers within 100. Explain the answer.
- Decide if number sentences (within 20) presented in a variety of ways are true.
- Solve addition and subtraction real-world situations through 99 with one number missing.
- Find the number to add to any number 0 to 99 to equal 100.
- Add and subtract within 20.
- Recognize that changing the grouping of numbers to be added does not change the answer. Use up to three numbers.
- Solve addition and subtraction number missing.
- Sort up to 20 objects into two groups and decide if the number of objects is even or odd.
- Decide the total number of objects when placed in equal groups or in an array.
- Write an addition equation where a single digit is added repeatedly to create a total no larger than 25.
(ex. $5 + 5 + 5 + 5 + 5 = 25$)
- Identify and describe growing shape patterns.
- Extend and create growing shape patterns.
- Identify and describe one-step rules for number patterns with 100 using addition and subtraction.
- Extend and create simple patterns using one-step addition and subtraction rules within 100.

HOW TO SUPPORT YOUR LEARNER AT HOME

Learning doesn't end at the school door. Your child needs support and help from you to succeed in the second grade. Work with your child at home. Be informed about what he is working on and know whether he needs help with specific skills. Remember, your attitude matters to her. Here are some suggestions for things to do at home to help your child learn:

Count

Take every opportunity to count. Count the steps into your house, the blocks to the store, the number of people in line, or the red cars on the road. Then count from the number backwards. Count up to the number by tens and fives.

Measure

Let your first grader measure family members' clothing against her own. How many of his socks make them equal to big brother's? Compare sleeve or pant leg lengths from other family members against hers.

Tell Time

Make a clock face on a paper plate and use a plastic knife for the minute hand and a spoon for the hour hand. Take turns "setting" the clock and telling the time within an hour and half hour.

Do Puzzles

Get "connect-the-dots" puzzles and work with your child to connect the numbered dots to make the picture. Print individual puzzles from online or buy books of puzzles.

Identify Numbers

Take a page from the newspaper and have your child circle all the numbers he can find.

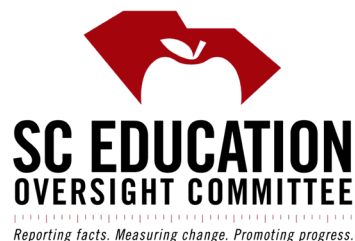
Add Doubles

Have your child add doubles, such as $4+4$ and $5+5$, from one to 10. Help him remember the sum by drawing a picture of the answer ($1+1=2$, he might draw two eyes). This activity helps your child more quickly add doubles and will carry over into adding adjacent numbers ($2+3$) and larger numbers ($33+33$).

ADDITIONAL INFORMATION

- Primary Games has arcade as well as educational games, so be sure to use the "learn" button to get to the math help games: <http://www.primarygames.com/math/grade/grade2-math-games.php>.
- The Khan Academy has activities to help master all the kindergarten through second-grade math skills: <https://www.khanacademy.org/mission/early-math>.
- Check the children's section of your local library for picture books that use sorting and counting as a part of the story. There are also books that focus on math games.

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The South Carolina Education Oversight Committee (EOC) is an independent, nonpartisan group of 18 educators, business people, and elected officials appointed by the legislature and governor. The EOC enacts the South Carolina Education Accountability Act of 1998, which sets standards for improving the state's K-12 educational system. The EOC reviews the state's education improvement process, assesses how schools are doing, and evaluates the standards schools must meet to build the education system needed to compete in this century.