



Third-grade students begin to feel confident in their skills and have an increased problem-solving ability. The South Carolina College- and Career- Ready Standards uses these attributes to interest your child in the more advanced topics of multiplication and division. Third graders begin work with fractions, outcomes of simple, exploring area and perimeter, elapsed time, and some basic concepts of Geometry.

Don't be surprised when your child must explain the steps, one at a time, needed to solve a math problem. There are several reasons why this is now common practice. The activity requires students to organize their work. It provides a "trail" for checking answers; shows exactly what was done; and allows for intervention exactly at the point where necessary. By showing their work, students are more accurate and avoid habits that could hinder their math progress.

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

Steps to Success

This document is designed to:

- Provide examples of the standards, skills, and knowledge your child will learn in mathematics and should be able to do upon exiting third grade
- Suggest activities on how you can help your child at home
- Offer additional resources for information and help

The South Carolina College-and Career-Ready Standards for Mathematics:

- Outline the knowledge and skills students must master so that, as high-school graduates, they have the expertise needed to be successful in college or careers.
- Provide a set of grade-level standards, "stair steps," based on the previous grade's standards which serve as the foundation for the next grade.
- Ensure that no matter where a student lives in South Carolina, the expectations for learning are the same.

Human knowledge now doubles about every three years. Therefore, revision of South Carolina's standards occurs periodically to respond to this growth of knowledge and increase of needed skills so our students will be ready for college or jobs. The College-and Career-Ready Standards prepare students for dealing with the growing mass of information by not only emphasizing content knowledge but by also stressing the skills of reasoning, analyzing data, and applying information to examine and solve situations.

South Carolinians developed these academic standards for South Carolina's children. The Mathematics standards are aligned with the Profile of the South Carolina Graduate, which summarizes the knowledge, skills, and habits employers expect. Developed by business leaders, the Profile is approved by the South Carolina Chamber of Commerce and endorsed by the Superintendents' Roundtable as well as South Carolina's colleges and universities. The Profile demands world-class knowledge and skills, and emphasizes critical thinking and problem solving, communication, and interpersonal skills.

DATA, PROBABILITY, AND STATISTICAL REASONING

Third-grade students learn to collect and analyze data and communicate through various tables, charts, and scaled graphs. Students will also be introduced to probability, as they learn to represent the likelihood of a simple event occurring. These **Steps to Success** include:

- Collect and sort data into two types: groups (categorical) and numbers (numerical).
- Use tables, scaled picture and bar graphs, and/or dot plots to show data.
- Use table/graph titles and labels.
- Solve one-step real-world problems using data shown in the ways listed above.
- Identify the possible results of a simple event such as rolling a number cube, or spinning a spinner, etc.

MEASUREMENT, GEOMETRY, AND SPATIAL REASONING

Third-grade students learn to collect and analyze data and communicate through various tables, charts, and scaled graphs. Students will also be introduced to probability, as they learn to represent the likelihood of a simple event occurring. These **Steps to Success** include:

- Find the area of squares and rectangles by covering a space with square units and counting them.
- Find the perimeter of regular/irregular triangles and quadrilaterals given the side lengths.
- Decide whether area or perimeter should be found for real-world examples.
- Calculate the value of a collection of coins within \$5.
- Write the amount of dollars and cents using decimal notation (\$3.27)
- Tell and record time to the minute using AM and PM.
- Solve addition and subtraction elapsed time problems to the nearest half hour.
- Estimate and measure length/distance to the nearest half-inch or whole centimeter.
- Choose the best unit of liquid volume (such as ounces, cups, pints, etc.) to measure different real-world situations.
- Describe and draw right (90 degrees), acute (less than 90 degrees), obtuse (greater than 90 degrees), and straight angles (180 degrees).
- Identify examples of the angles listed above in 2D (flat) shapes.
- Identify, describe, and draw points, lines, line segments, rays, intersecting lines, perpendicular lines, and parallel lines.
- Identify examples of the above in 2-D figures.

NUMERICAL REASONING

Third-grade students continue to represent and compare whole numbers using relationships within the base ten number system. A major focus of their work will center around building a strong understanding of fractions including how to represent and compare them using a variety of models. These **Steps to Success** include:

- Read, write, and represent whole numbers within 999,999.
- Use a number line, standard form, base ten language (326 would be 3 hundreds, 2 tens, and 6 ones), word (three hundred twenty-six) form, and expanded form ($300 + 20 + 6$).
- Combine and break down 4-digit numbers like 2,450 into various combinations of ones, tens, hundreds, and thousands.
- Use place value to compare two whole numbers up to 999,999 using greater than ($>$), less than ($<$), or equal to ($=$) symbols.
- Round whole numbers within 1,000 to the nearest 10 and/or 100.
- Identify unit fractions such as $\frac{1}{4}$ and $\frac{1}{2}$ and what part of the whole they represent.
- Express each part of the whole as a unit fraction, which together make the whole.
- Represent fractions from 0 to 1 using concrete, set, area, and linear models.
- Write fractions in standard form and word form.
- Represent whole numbers as fractions.
- Identify fractions that are equivalent to whole numbers.
- Compose fractions within 5 using unit fractions.
- Record the parts as a mixed number or fraction greater than 1 (improper).
- Recognize two fractions between 0 and 1 as equivalent.
- Compare two fractions with the same numerator using symbols.
- Compare two fractions with the same denominator using symbols.

PATTERNS, ALGEBRA, AND FUNCTIONAL REASONING

Third-grade students will solve problems involving the properties of whole numbers using models. A major focus of their work will be building a strong understanding of multiplication and division by making connections between them and applying them to various situations. This work will help them solve multi-digit problems in fourth and fifth grades. Finally, third-grade students will represent and solve situations involving unknowns and patterns. These **Steps to Success** include:

- Add and subtract within 1,000.
- Multiply factors within 10 using a model and represent it as an equation.
- Divide with divisors within 10 using a model and represent it as an equation.
- Multiply two whole numbers within 10.
- Use multiplication facts to divide flexibly and correctly.
- Find the missing number in a real-world multiplication and/or division problem.
- Solve one and two-step real-world problems using addition/subtraction within 1,000.
- Identify, create, and continue number patterns involving addition/subtraction.
- Find up to the next three terms in a number pattern.
- Recognize that factors 1-10 can be used to find its multiples.



HOW TO SUPPORT YOUR LEARNER AT HOME

Work with your child at home to help him succeed in third-grade math. Be informed about what she is working on and know whether she needs help with specific skills. Stay positive as your child works to establish his foundation for future math concepts. Your attitude makes all the difference to her. Here are some suggestions for things to do at home to help your child learn:

Division

Help your child understand the concept of division by separating a collection of objects. First, separate the objects into an equal number of groups. For example, if 12 toys were separated so that there were 4 toys in each group, how many groups of 4 would you have? (Answer: 3) Second, separate the objects so that there is an equal number in each pile. If 12 toys were separated into 3 equal piles/groups, how many toys would be in each group? (Answer: 4)

Make Cents

Use coins and have your child show you how many ways she can make 5 cents, 10 cents, 25 cents, and 50 cents.

Play

Play fluency games with your child to help them learn multiplication and division facts.

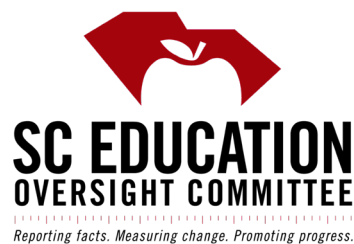
Coupon

Cut out grocery store coupons and have him determine how much money is saved. Ask your child what could be purchased using the savings from the coupon. A pack of gum? A pencil? How much money could be saved if she had 3, 4, or 5 of the coupons? What could he purchase with those savings?

ADDITIONAL INFORMATION

- Funbrain, <http://www.funbrain.com/brain/MathBrain/MathBrain.html> , has fun games to help with math skills. It requires you to have a password; however, to receive one, you only need to record a gender and a grade level.
- The Khan Academy offers tutorials on all aspects of third-grade math at <https://www.khanacademy.org/math/cc-third-grade-math>.

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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.