South Carolina Tutorials are designed specifically for the South Carolina College and Career Readiness Standards and the South Carolina Academic Standards to prepare students for the South Carolina End-of-Course Examination Program (EOCEP), ACT Aspire, and the South Carolina Palmetto Assessment of State Standards (SCPASS).

Math Tutorials offer targeted instruction, practice and review designed to develop computational fluency, deepen conceptual understanding, and apply mathematical practices. They automatically identify and address learning gaps down to elementary-level content, using adaptive remediation to bring students to grade-level no matter where they start. Students engage with the content in an interactive, feedback-rich environment as they progress through standards-aligned modules. By constantly honing the ability to apply their knowledge in abstract and real world scenarios, students build the depth of knowledge and higher order skills required to demonstrate their mastery when put to the test.

In each module, the Learn It and Try It make complex ideas accessible to students through focused content, modeled logic and process, multi-modal representations, and personalized feedback as students reason through increasingly challenging problems. The Review It offers a high impact summary of key concepts and relates those concepts to students' lives. The Test It assesses students' mastery of the module's concepts, providing granular performance data to students and teachers after each attempt. To help students focus on the content most relevant to them, unit-level pretests and posttests can quickly identify where students are strong and where they're still learning.

Unit 1: Working with Rational Numbers

- **FRACTIONS, DECIMALS, AND PERCENTS**
  - 7.NR.1.1: Convert rational numbers into equivalent forms among fractions (including mixed numbers), decimals, and percentages. Exclude the conversion of repeating decimals to fractions.
- **EXPRESSING RATIONAL NUMBERS IN DECIMAL FORM**
  - 7.NR.1.1: Convert rational numbers into equivalent forms among fractions (including mixed numbers), decimals, and percentages. Exclude the conversion of repeating decimals to fractions.
- **USING OPERATIONS ON RATIONAL NUMBERS TO SOLVE PROBLEMS**
  - 7.PAFR.3.5: Apply all operations with rational numbers to solve problems in mathematical and real-world situations.

Unit 2: Rate, Ratio, and Proportion

- **UNIT RATES**
  - 7.PAFR.2.3: Compute unit rates, including those involving complex fractions with like or different units.
- **ANALYZING PROPORTIONAL RELATIONSHIPS**

- 7.PAFR.1.3: Identify the constant of proportionality within proportional relationships.

- **REPRESENTING PROPORTIONAL RELATIONSHIPS**
  - 7.PAFR.1.2: Create a model with functions that address a proportional relationship in real-world situations.
- **USING PROPORTIONS TO SOLVE PROBLEMS**
  - 7.PAFR.1.1: Apply proportional reasoning to solve problems in mathematical and real-world situations involving ratios and percentages.

Unit 3: Algebraic Expressions

- **PROPERTIES OF EXPONENTS**
  - 7.PAFR.3.1: Simplify numerical expressions that include integer exponents using the laws of exponents: the Product of Powers, Quotient of Powers, Power of a Power, Power of a Product, Power of a Quotient, Zero Power, and Negative Exponent.
- **EVALUATING EXPRESSIONS**
  - 7.PAFR.2.2: Write and evaluate expressions in one variable that model mathematical and real-world situations.
- **EQUIVALENT EXPRESSIONS**
  - 7.PAFR.3.2: Identify linear expressions that are equivalent.
  - 7.PAFR.3.3: Recognize that algebraic expressions may have a variety of equivalent forms and determine an appropriate form for a given real-world situation.
- **SIMPLIFYING AND REWRITING ALGEBRAIC EXPRESSIONS**
  - 7.PAFR.2.2: Write and evaluate expressions in one variable that model mathematical and real-world situations.
  - 7.PAFR.3.4: Factor linear expressions with integer coefficients using the greatest common factor (GCF).

Unit 4: Algebraic Equations and Inequalities

- **INEQUALITIES AND COMPARISONS**
  - 7.NR.2.1: Compare two rational numbers and write statements using is equal to (=), is not equal to (), is less than (), is greater than (), is greater than or equal to (=), and/or is less than or equal to (=) in mathematical and real-world situations.
- **SOLVING MULTI-STEP PROBLEMS WITH RATIONAL NUMBERS**
  - 7.PAFR.2.1: Write and solve multi-step equations and inequalities in one variable involving rational numbers in mathematical and real-world situations.
- **SOLVING 2-STEP EQUATIONS**
  - 7.PAFR.2.1: Write and solve multi-step equations and inequalities in one variable involving rational numbers in mathematical and real-world situations.
- **SOLVING LINEAR INEQUALITIES**

- 7.PAFR.2.1: Write and solve multi-step equations and inequalities in one variable involving rational numbers in mathematical and real-world situations.

Unit 5: Drawing, Constructing, and Exploring Geometric Figures

- **SCALE DRAWINGS**
  - 7.MGSR.2.2: Solve mathematical and real-world situations involving dimensions and areas of geometric figures including scale drawings and scale factors.
- **GEOMETRIC DRAWINGS**
  - 7.MGSR.1.4: Determine if three given side lengths can form a triangle using the Triangle Inequality Theorem.
- **USING GRAPHS TO SOLVE PROBLEMS**
  - 7.MGSR.3.1: Find distances between ordered pairs on the coordinate plane, limited to the same -coordinate or the same -coordinate.
- **DISTANCE ON THE COORDINATE PLANE**
  - 7.MGSR.3.1: Find distances between ordered pairs on the coordinate plane, limited to the same -coordinate or the same -coordinate.

Unit 6: Geometry in Two and Three Dimensions

- **CIRCLES**
  - 7.MGSR.1.1: Identify the parts of a circle. Limit the parts to center, radius, diameter, and chord.
  - 7.MGSR.1.2: Describe the relationship between the radius, diameter, and circumference of a circle.
  - 7.MGSR.1.3: Solve mathematical and real-world situations involving circumference or area of circles.
- **AREA, VOLUME, AND SURFACE AREA**
  - 7.MGSR.1.5: In mathematical and real-world situations, find the volume of right prisms and right pyramids having triangular or quadrilateral bases.
  - 7.MGSR.1.6: In mathematical and real-world situations, find the surface area of right prisms and right pyramids having triangular or quadrilateral bases.
- **ANGLE RELATIONSHIPS**
  - 7.MGSR.2.3: Identify the relationships and measures among angles formed by two intersecting lines, given the measure of one angle. Limit to supplementary, complementary, vertical, and adjacent relationships.
  - 7.MGSR.2.4: Write and solve equations to solve mathematical and real-world situations involving the relationships among angles formed by two intersecting lines. Limit to supplementary, complementary, vertical, and adjacent relationships.
- **ANGLE RELATIONSHIPS IN TRIANGLES**
  - 7.MGSR.2.1: Determine the measure of the third angle given the measure of the other two angles of a triangle using the Triangle Sum Theorem.

Unit 7: Statistics and Sampling

- **SUMMARIZING DATA USING MEASURES OF CENTER AND VARIABILITY**
  - 7.DPSR.1.4: Create histograms to represent data sets and interpret histograms to answer questions or draw conclusions about data sets.
- **CHOOSING APPROPRIATE MEASURES TO SUMMARIZE DATA SETS**
  - 7.DPSR.1.2: Use the shape of the graph to select the measure of center (mean, median, or mode) that best describes the data set.
- **COMPARING DATA SETS VISUALLY**
  - 7.DPSR.1.3: Calculate and interpret the measures of center (mean, median, mode) and spread (mean absolute deviation, interquartile range, range) in mathematical and real-world situations.
- **USING STATISTICAL MEASURES TO COMPARE DATA SETS**
  - 7.DPSR.1.3: Calculate and interpret the measures of center (mean, median, mode) and spread (mean absolute deviation, interquartile range, range) in mathematical and real-world situations.

Unit 8: Probability

- **PROBABILITY**
  - 7.DPSR.2.1: Identify the sample space for a simple event.
- **CALCULATING PROBABILITY**
  - 7.DPSR.2.1: Identify the sample space for a simple event.
  - 7.DPSR.2.2: Calculate and interpret the theoretical probability of a simple random event.
  - 7.DPSR.2.3: Calculate and interpret the experimental probability of a random event related to a simple experiment.
  - 7.DPSR.2.4: Compare and contrast the experimental and theoretical probabilities for a simple experiment.