

7th grade eLearning Math Resources for South Carolina School Districts

The Office of Standards and Learning has compiled the resources in this document for middle level Math learners in light of school closures due to the community impact of COVID-19.

The South Carolina College- and Career-Ready Standards for Mathematics informed the selection and organization of these resources.

The resources listed below are tasks to get your students exploring the mathematical content in the world around them. Teachers, choose among the resources listed below based on knowledge of your students and the work that has already been completed in your classroom. Each of the following tasks can be given to students as they are stated below. The tasks can be copied and pasted into a document to be copied and sent to students, or they can be copied and pasted into your district's learning management system. However, feel free to modify as needed for your students.

<i>Mathematics Content Standard(s) Addressed</i>	<i>Mathematics Process Standard(s) Addressed</i>	<i>Math Task</i>
<p><i>The Number System</i> 7.NS.5 Extend prior knowledge to translate among multiple representations of rational numbers (fractions, decimal numbers, percentages).</p>	<p>2. Reason both contextually and abstractly. 3. Use critical thinking skills to justify mathematical reasoning. 4. Connect mathematical ideas and real-world situations through modeling. 6. Communicate mathematically and with precision. 7. Identify and utilize structure and patterns.</p>	<p>How many different ways can you represent $1\frac{1}{2}$? (You are not limited to numbers.)</p>
<p><i>The Number System Ratios and Proportional Relationships</i> 7.NS.1 Extend prior knowledge of operations with positive rational numbers to add and to subtract all rational numbers and represent the sum or difference on a number line. 7.NS.2 Extend prior knowledge of operations with</p>	<p>1. Make sense of problems and persevere in solving them. 2. Reason both contextually and abstractly. 3. Use critical thinking skills to justify mathematical reasoning. 4. Connect mathematical ideas and</p>	<p>Use the grocery store flyers that are delivered in the mail to create a grocery list for your family. Calculate the total cost of the same grocery bill from 2 different grocery stores. Be sure to include any taxes. At which store should you buy this list of items? Why? Based on the number of people in your family, what is your share of the bill for this list of groceries? What is the cost per person? What</p>

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<p>positive rational numbers to multiply and to divide all rational numbers.</p> <p>7.NS.3 Apply the concepts of all four operations with rational numbers to solve real-world and mathematical problems.</p> <p>7.NS.5 Extend prior knowledge to translate among multiple representations of rational numbers (fractions, decimal numbers, percentages).</p> <p>7.RP.3 Solve real-world and mathematical problems involving ratios and percentages using proportional reasoning (e.g., multi-step dimensional analysis, percent increase/decrease, tax).</p>	<p>real-world situations through modeling.</p> <p>6. Communicate mathematically and with precision.</p> <p>7. Identify and utilize structure and patterns.</p>	<p>fraction of the total amount is your share? What percentage of the total amount is your share? Show your thinking as you determine the different amounts.</p>
<p><i>Geometry and Measurement</i></p> <p>7.GM.6 Apply the concepts of two- and three-dimensional figures to real-world and mathematical situations.</p>	<ol style="list-style-type: none"> 1. Make sense of problems and persevere in solving them. 2. Reason both contextually and abstractly. 3. Use critical thinking skills to justify mathematical reasoning. 4. Connect mathematical ideas and real-world situations through modeling. 6. Communicate mathematically and with precision. 7. Identify and utilize structure and patterns. 	<p>Find a box, measure the dimensions of the box, and calculate the volume of the box. Determine dimensions of a different box that would hold the same volume. Which box, the original or one with your new dimensions, would use less cardboard to make? How do you know? Show your thinking as you determine the calculations for each box.</p>
<p><i>Geometry and Measurement</i></p> <p>7.GM.1 Determine the scale factor and translate between</p>	<ol style="list-style-type: none"> 1. Make sense of problems and persevere in solving them. 	<p>Make a scale drawing of your bedroom. Be sure to include all the furniture in your room in your</p>

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scale models and actual measurements (e.g., lengths, area) of real-world objects and geometric figures using proportional reasoning.	2. Reason both contextually and abstractly. 3. Use critical thinking skills to justify mathematical reasoning. 4. Connect mathematical ideas and real-world situations through modeling. 6. Communicate mathematically and with precision. 7. Identify and utilize structure and patterns.	drawing. What scale factor did you use? Why did you choose the scale factor you used? Explain your thinking.
<i>Data Analysis, Statistics, and Probability</i> 7.DSP.3 Visually compare the centers, spreads, and overlap of two displays of data (i.e., dot plots, histograms, box plots) that are graphed on the same scale and draw inferences about this data.	1. Make sense of problems and persevere in solving them. 2. Reason both contextually and abstractly. 3. Use critical thinking skills to justify mathematical reasoning. 4. Connect mathematical ideas and real-world situations through modeling. 6. Communicate mathematically and with precision. 7. Identify and utilize structure and patterns.	Record the daily high and low temperatures for two weeks. Calculate the measures of center and measures of variability, and make a graph of the high temperature data. Calculate the measures of center and measures of variability, and make a graph of the low temperature data (use the same scale as you used for the high temperature graph). Analyze the data. What inferences can you make from the data? Can you make any predictions? Explain your thinking.

Ammons, Sandra. (2020). *7th grade eLearning Math Resources for South Carolina School Districts*. South Carolina Department of Education.

Games that reinforce Math Content

1. Play the card game War using red as negative values and black as positive values to practice comparing integers.

References

Ammons, Sandra. (2020). *7th grade eLearning Math Resources for South Carolina School Districts*. South Carolina Department of Education.

South Carolina College- and Career-Ready Standards for Mathematics. (2015). Retrieved March 17, 2020, from <https://ed.sc.gov/instruction/standards-learning/mathematics/standards/scccr-standards-for-mathematics-final-print-on-one-side/>