South Carolina College- and Career-Ready Standards Tasks for K-5 Mathematics



The Office of Standards & Learning has compiled available resources for Elementary Mathematics in light of school closures due to the community impact of COVID-19. Since this document is merely guidance for this time, districts should implement the standards in a manner that addresses the needs of each student as they encourage all learners to make meaning and be curious about their world mathematically. **Mathematical Process Standards:** The South Carolina College- and Career-Ready (SCCCR) Mathematical Process Standards demonstrate the ways in which students develop conceptual understanding of mathematical content and apply mathematical skills. As a result, the SCCCR Mathematical Process Standards should be integrated within the SCCCR Content Standards for Mathematics for each grade level and course. Since the process standards drive the pedagogical component of teaching and serve as the means by which students should demonstrate understanding of the content standards, the process standards must be incorporated as an integral part of overall student expectations when assessing content understanding.

Mathematical Process Standards

 Make sense of problems and persevere in solving them. a. Relate a problem to prior knowledge. b. Recognize there may be multiple entry points to a problem and more than one path to a solution. c. Analyze what is given, what is not given, what is being asked, and what strategies are needed, and make an initial attempt to solve a problem. d. Evaluate the success of an approach to solve a problem and refine it if necessary. 	 5. Use a variety of mathematical tools effectively and strategically. a. Select and use appropriate tools when solving a mathematical problem. b. Use technological tools and other external mathematical resources to explore and deepen understanding of concepts.
 2. Reason both contextually and abstractly. a. Make sense of quantities and their relationships in mathematical and real-world situations. b. Describe a given situation using multiple mathematical representations. c. Translate among multiple mathematical representations and compare the meanings each representation conveys about the situation. d. Connect the meaning of mathematical operations to the context of a given situation. 	 6. Communicate mathematically and approach mathematical situations with precision. a. Express numerical answers with the degree of precision appropriate for the context of a situation. b. Represent numbers in an appropriate form according to the context of the situation. c. Use appropriate and precise mathematical language. d. Use appropriate units, scales, and labels.
 3. Use critical thinking skills to justify mathematical reasoning and critique the reasoning of others. a. Construct and justify a solution to a problem. b. Compare and discuss the validity of various reasoning strategies. c. Make conjectures and explore their validity. d. Reflect on and provide thoughtful responses to the reasoning of others. 	 7. Identify and utilize structure and patterns. a. Recognize complex mathematical objects as being composed of more than one simple object. b. Recognize mathematical repetition in order to make generalizations. c. Look for structures to interpret meaning and develop solution strategies.
 4. Connect mathematical ideas and real-world situations through modeling. a. Identify relevant quantities and develop a model to describe their relationships. b. Interpret mathematical models in the context of the situation. c. Make assumptions and estimates to simplify complicated situations. d. Evaluate the reasonableness of a model and refine if necessary. 	

SCCCR Math Key Concepts	Suggested Math Tasks for Grades K-5 The Math Tasks listed below are available in the <u>SCCCR K-5 Mathematics Support</u> <u>Documents Drafts</u> along with additional clarifying notes for teachers about each content standard and vocabulary. These tasks were selected for this resource because of the potential to be incorporated over time as part of a daily math talk routine that supports Mathematical Process Standards skills by modifying the tasks. Teachers can choose what tasks students need based on how they can productively struggle without direct teacher feedback. The application of these skills are modeled by the teacher continuously, and supported at home with families. Content vocabulary is embedded in each task as a guide to model mathematical language to justify reasoning. Given the opportunity to encourage students to engage in discourse digitally and at home, the following tasks allow students to explore and connect mathematical ideas as critical thinkers through multiple representations that are readily available.	
	K-2nd	3rd-5th
Number Sense & Base Ten	★ <u>Counting My Collection</u>	 Number of the Day Please Explain
Algebraic Thinking & Operations	 ★ Addition and Subtraction with Number Bonds ★ Addition and Subtraction with Double Ten Frame and Number Bonds with Missing Addends 	◆ <u>Dinner Time</u>
Geometry	★ <u>Be Fair and Share</u>	 Design a Fraction Navigating with the Navy (Grade 5)
Measurement	★ Non Standard Units of Measurement	• Area and Perimeter Hunt
Data Analysis	★ Line Plot Creations	◆ <u>Graphing Task</u>

*Download documents as Google Doc or Microsoft Word file to see correct format outside of preview

South Carolina Math Moments BINGO (K-5 Student Board)

This resource can be used by students to make math connections across key concepts in their everyday lives. Teachers can encourage their students to share their math moments with family and as a class overtime.

Please contact Vanessa Burgos-Kelly with any questions about K-5 SCCCR Math Resources <u>Vburgos-kelly@ed.sc.gov</u>

References

SCCCR-M Elementary (Grades K-5) Support Document. (2019). Retrieved March 17, 2020, from https://ed.sc.gov/instruction/standards-learning/mathematics/support-documents-and-resources/