

**Priority Code**  
 E = Essential  
 I = Important  
 C = Compact

## 4<sup>th</sup> Grade Math Prioritized Curriculum



Goals and Objectives	Priority	Time	Essential Questions	Suggested Reading and Writing Activities	Resources	Assessments
Goal 1: The learner will read, write, model, and compute with non-negative rational numbers.					The following resources can be used for all of the following activities: textbook, Excel Math, Accelerated Math, Competitive Edge, Mountain Math, Blast Off, Coach, NC State testlets, Super Star Sheets	The following types of assessments can be used for all of the following activities: Teacher Assessment, EOG Prep Materials, Work samples, Weekly Testing, EOG Testing
1.01 Develop number sense for rational numbers 0.01 through 99,999. a. Connect model, number word, and number using a variety of representations. b. Build understanding of place value (hundredths through ten thousands). c. Compare and order rational numbers d. Make estimates of rational numbers in appropriate situations.	E  E E I	On-going	a. How do I write numbers in expanded and standard form? b. How do I determine the value of a digit in a given number? c. How can I compare fractions, mixed numbers, and decimals? d. What steps do I use to estimate numbers?	a. Ask students to use base ten blocks to model numbers b. Use place value charts. c. Use place value blocks and fraction pieces. d. Have students use number lines and estimate in real life situations.		

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1.02 Develop fluency with multiplication and division: a. Two-digit by two-digit multiplication (large numbers with calculator). b. Up to three-digit by two-digit division (larger number with calculator). c. Strategies for multiplying and dividing numbers. d. Estimation of products and quotients in appropriate situations. e. Relationships between operations.	E E E E E	On-going	a. How do I multiply 2-digit numbers? b. How do I divide 3-digit number by 2-digit numbers? c. Explain the steps involved in multiplication and division. d. How do estimates help me with multiplication and division? e. What are the steps in using the order of operations?	a. Model steps for multiplying and have students use calculators. b. Use acronym: <u>D</u> addy, <u>M</u> ama, <u>S</u> ister, <u>B</u> rother to help students remember the order of operations. Model. c. Use colored pencils to color code each step. d. Use real world applications problems. Model. e. Use acronym: <u>P</u> ass <u>M</u> y <u>D</u> og <u>A</u> <u>S</u> poon.	Calculators  Colored pencils	
1.03 Solve problems using models, diagrams, and reasoning about fractions and relationships among fractions involving halves, fourths, eighths, thirds, sixths, twelfths, fifths, tenths, hundredths, and mixed numbers.	E	On-going	How can I compare fractions and mixed numbers? How do I find the fractional part of a whole? Explain how to add/subtract fractions.	Work in cooperative groups using fraction pieces.	Manipulatives. Teacher generated activities.	
1.04 Develop fluency with addition and subtraction of non-negative rational numbers with like denominators, including decimal fractions through hundredths. a. Develop and analyze strategies for adding and subtracting numbers. b. Estimate sums and differences. c. Judge the reasonableness of solutions.	I I I	On-going	Explain the process of adding and subtracting rational numbers. How do I round numbers? Does the answer make sense with the information that is provided?	Use manipulatives. Model. Model rounding. Use real life situations. Students use deductive reasoning to compare estimates to actual answers.		

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1.05 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.	E	On-going	What operation will work best to solve this problem? How do I use a calculator? What strategy will help me approach this problem successfully? How will I solve the problem? Ex. Rounding, Mental Math, Computer, etc.	Model the use of calculators in solving problems. Ask students to practice using a variety of problem solving solutions.	Calculators	

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Goal 2: The learner will understand and use perimeter and area.					The following resources can be used for all of the following activities: textbook, Excel Math, Accelerated Math, Competitive Edge, Mountain Math, Blast Off, Coach, NC State testlets, Super Star Sheets	The following types of assessments can be used for all of the following activities: Teacher Assessment, EOG Prep Materials, Work samples, Weekly Testing, EOG Testing
2.01 Develop strategies to determine the area of rectangles and the perimeter of plane figures.	E	On-going	How can you find the perimeter and area of a rectangle, triangle, or square using grids and/or formulas?	Allow students to measure various objects around the classroom to determine area & perimeter. (to illustrate use graph or grid paper)	Rulers, graphing paper, and classroom objects.	
2.02 Solve problems involving perimeter of plane figures and area of rectangles.	E	On-going	How is the length and width of a figure similar to the total number of square units in the figure?	Ask students to practice measuring objects using standard and non-standard units.	Rulers, graph paper, and objects	

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Goal 3: The learner will recognize and use geometric properties and relationships.					The following resources can be used for all of the following activities: textbook, Excel Math, Accelerated Math, Competitive Edge, Mountain Math, Blast Off, Coach, NC State testlets, Super Star Sheets	The following types of assessments can be used for all of the following activities: Teacher Assessment, EOG Prep Materials, Work samples, Weekly Testing, EOG Testing
3.01 Use the coordinate system to describe the location and relative position of points and draw figures in the first quadrant.	E	On-going	How do I plot points on a graph/grid? What are the coordinated of a given figure?	Ask students to plot coordinate points on a graph using data. Ask student to design their own pictures detailing coordinates.	Graph paper	
3.02 Describe the relative position of lines using concepts of parallelism and perpendicularity.	I	On-going	What are intersecting perpendicular, and parallel lines?	Model. Use real world examples (railroad tracks, street intersections, etc.)		
3.03 Identify, predict, and describe the results of transformations of plane figures. a. Reflections. b. Translations. c. Rotations.	E	On-going	How can I tell which transformation has occurred? a. Reflection? b. Translation? c. Rotation?	Provide vocabulary tricks to help students learn terminology. Ex. Reflection – <u>f</u> lip Translation – <u>s</u> lide Rotation – <u>t</u> urn		

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Goal 4: The learner will understand and use graphs, probability, and data analysis.					The following resources can be used for all of the following activities: textbook, Excel Math, Accelerated Math, Competitive Edge, Mountain Math, Blast Off, Coach, NC State testlets, Super Star Sheets	The following types of assessments can be used for all of the following activities: Teacher Assessment, EOG Prep Materials, Work samples, Weekly Testing, EOG Testing
4.01 Collect, organize, analyze, and display data (including line graphs and bar graphs) to solve problems.	E	On-going	How can I collect, organize, and display data?	Give students data and have them compare using two or more sets of data by using a line or bar graph. Implement graphing in content areas.	Student generated graphs.	
4.02 Describe the distribution of data using median, range, and mode.	E	On-going	How do I find mode, median, and range?	Ask students to use a set of grades to find mode, median, and range.		
4.03 Solve problems by comparing two sets of related data.	I	On-going	What can I conclude from a given set of data? How do I compare two sets of data?	Have students use a variety of graphs to compare data and formulate answer	Teacher given data Graph paper	
4.04 Design experiments and list all possible outcomes and probabilities for an event.	I	On-going	How do I determine and describe probability?	Use games such as: spinners, money, die, etc. to practice probability	manipulatives	

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Goal 5: The learner will demonstrate an understanding of mathematical relationships.					The following resources can be used for all of the following activities: textbook, Excel Math, Accelerated Math, Competitive Edge, Mountain Math, Blast Off, Coach, NC State testlets, Super Star Sheets	The following types of assessments can be used for all of the following activities: Teacher Assessment, EOG Prep Materials, Work samples, Weekly Testing, EOG Testing
5.01 Identify, describe, and generalize relationships in which: a. Quantities change proportionally.  b. Change in one quantity relates to change in a second quantity.	E  I	On-going	How can I find and identify patterns?	a. Generate patterns for students to label, interpret, and translate. b. Use recipes to show how quantities change proportionally		
5.02 Translate among symbolic, numeric, verbal, and pictorial representations of number relationships.	C	On-going	How can I translate non-numeric symbols in open sentences? Explain how to solve equation using symbols, pictures, and numbers.	Teacher made models		
5.03 Verify mathematical relationships using: a. Models, words, and numbers.  b. Order of operations and the identity, commutative, associative, and distributive properties.	I  E	On-going	a. How can I determine the relationship between mathematical information? b. What are the identity, commutative, associative, and distributive properties?	a. Model for students  b. Provide pictorial representation. Model.		