

Math Content Standards:

1. Number Sense 2. Operations 3. Estimation
4. Ratio, Proportion, and Percent 5. Measurement
6. Spatial Relationships and Geometry
7. Probability and Statistics 8. Patterns 9. Algebra
10. Discrete Mathematics

Grade Five

Content Standard #1: Number Sense

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
1. Explore place value with larger numbers up to 1,000,000	a. Compare, order, and round whole numbers less than 1,000,000. b. Order numbers less than 1,000,000. c. Rewrite whole numbers up to 1,000,000 using expanded notation. d. Identify value of a digit in whole numbers less than 1,000,000. e. Solve problems involving place value concepts such as one thousand more/less, ten thousand more/less, and hundred thousand more/less. f. Rename whole numbers by regrouping ten thousands, thousands, hundreds, tens,	MiC Modules: Measure for Measure, Per Sense, supplement	1a. 1b. 1c. 1d. 4a. 4c.	

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
	<p>and ones.</p> <p>g. Use the symbols greater than and less than ($>$, $<$) correctly in number sentences.</p>			
<p>2. Apply set, area, and linear models to develop conceptual understanding of fractions. {4th – introduce / 5th – apply}</p>	<p>a. Recognize part-whole relationships.</p> <p>b. Write a fraction for a region or a set.</p>	<p>MiC Modules: Some of the Parts and Per Sense</p>	<p>4g.</p>	
<p>3. Rename equivalent fractions, mixed numbers, and improper fractions {4th - explore, 5th - apply}</p>	<p>a. Find equivalent fractions, and write fractions in simplest form.</p>	<p>MiC Module: Some of the Parts, Measure for Measure</p>	<p>3a. 3b.</p>	
<p>4. Develop the relationship of fractions to decimals.</p>	<p>a. Recognize fractions as decimals and percents.</p> <p>b. Read and write decimals through thousandths.</p> <p>c. Use equivalent representations of fractions, decimals and division notation.</p> <p>d. Understand the relationship between benchmark fractions and their decimal representations.</p>	<p>MiC Modules: Per Sense, Some of the Parts, Measure for Measure</p>		
<p>5. Compare and order fractions and decimals.</p>	<p>a. Understand place value and its use in ordering decimals.</p> <p>b. Compare and order fractions and decimals.</p>	<p>MiC Modules: Some of the Parts, Per Sense, Measure for Measure</p>	<p>4b. 4d.</p>	

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
6. Relate fraction, mixed numbers, and decimals to concrete, pictorial and symbolic representations	<ul style="list-style-type: none"> a. Identify fractions from pictures. b. Change mixed numbers to fractions and vice versa. c. Recognize decimals from pictures. d. Choose an appropriate visual model or strategy to represent and solve problems involving decimals. e. Locate, identify, and order numbers on number lines, scales, and grids. 	MiC Modules: Some of the Parts, Measure for Measure, Per Sense	2 a. 2b. 2c.	
7. Use appropriate technology to enhance development of number sense.	a. Use calculators and spreadsheets to enhance development of number sense.	Supplement		
8. Develop, use, and explain prime numbers {4 th – develop, 5 th – use & explain}	a. Develop, use, and explain prime numbers.	Supplement		
	a. Develop an understanding of the concepts of pairing, even, odd, and super-even (powers of two) numbers, and zero as even.	MiC Modules: Some of the Parts, Measure for Measure, Per Sense, Figuring All the Angles		

Grade Five
Content Standard #2: Operations

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
1. Develop and verbalize their conceptual understanding of addition and subtraction with fractions, and decimals, using concrete, pictorial, and symbolic models.	a. Use fractions to describe part-whole relationships.	MiC Modules: Measure for Measure, Some of the Parts, Per Sense, Figuring All Angles	2a. 2b. 2c.	
2. Relate operations to real-world and problem solving experiences {4 th – develop; 5 th – apply}	a. Solve one and two step problems involving whole numbers, fractions, and decimals and explain how the solution was determined. b. Solve problems with extraneous information. c. Identify needed information in problems.	MiC Modules: Some of the Parts, Figuring All the Angles, Measure for Measure, Per Sense	5a. 5b. 9a. 9b. 9c.	
3. Construct, develop, and explain a variety of mental computation and estimation strategies	a. Estimate sums, differences, products and quotients for whole numbers, fractions, and decimals.	MiC Modules: Measure for Measure, Figuring All the Angles	10a. 10b. 10c.	
4. Develop and use appropriate mathematical language and symbols related to operations.	a. Add and subtract two, three, and four digit whole numbers and money amounts less than \$1000.00 b. Add and subtract decimals	MiC Modules: Measure for Measure, Picturing Numbers	6. 7a. 7b. 7c. 8.	

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
	<p>through thousandths, including amounts of money.</p> <p>c. Add and subtract fractions and mixed numbers with like and unlike denominators.</p> <p>d. Multiply any whole number by a two or three digit number.</p> <p>e. Multiply money amounts less than \$10.00.</p> <p>f. Divide by one and two digit divisors to find two and three digit quotients.</p>			
<p>5. Select and apply appropriate procedures for computation (e.g., mental math, estimation, pencil and paper, calculator) {4th – develop; 5th – apply}</p>	<p>a. Select and apply appropriate procedures for computation.</p>	<p>Supplement</p>		
<p>6. Develop fluency with multiplication and division of whole numbers through 10 {4th}</p>	<p>a. Develop fluency with multiplication and division of whole numbers through 10</p>	<p>Supplement</p>	<p>6.</p>	
<p>7. Explore the concept of order of operations {5th}</p>	<p>a. Explore the concept of order of operations.</p>	<p>Math on Call and Supplement</p>		
<p>8. Use technology to reinforce and enhance understanding of operations. {4th & 5th apply}</p>	<p>a. Add, subtract, multiply and divide with a calculator.</p>	<p>MiC Modules: Some of the Parts, Supplement</p>		

Grade Five
Content Standard #3: Estimation and Approximation

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
1. Develop, apply, and explain a variety of estimation strategies in problem situations involving quantities and measures	<ul style="list-style-type: none"> a. Develop, apply, and explain a variety of estimation strategies in problem situations involving quantities and measures. b. Estimate fractions and parts of wholes. c. Identify whether and why a particular strategy will result in an overestimate or an underestimate. d. Determine a reasonable estimate and describe the strategy used to make the estimate. 	MiC Modules: Measure for Measure, Figuring All the Angles, Per Sense	10a. 10b. 10c.	
2. Use estimates to determine relative size and order of fractions and decimals	<ul style="list-style-type: none"> a. Use estimates to determine relative size and order of fractions and decimals. b. Round decimals to nearest whole number. b. Round decimals in a context. 	MiC Modules: Measure for Measure, Per Sense	4f.	

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
3. Identify appropriate procedures for making estimates of whole number, fraction, and decimal computations.	<ul style="list-style-type: none"> a. Estimate fractions and parts of whole numbers. b. Estimate reasonable answers to addition, subtraction, multiplication and division of whole number, fractions, and decimal problems. c. Use estimation to make and defend decisions. 	MiC Module: Per Sense	11a. 11b.	
4. Estimate reasonable solutions to problems involving money amounts/change.	<ul style="list-style-type: none"> a. Estimate reasonable sums and differences of whole number and money amounts. b. Round whole numbers in a context. 	MiC Module: Per Sense	4e.	
5. Estimate quantities, lengths, areas, perimeters, volumes, and angle measures (greater than, equal to, or less than 90°)	<ul style="list-style-type: none"> a. Estimate quantities, lengths, areas, perimeters, volumes, and angle measures (greater than, equal to, or less than 90°) 	MiC Modules: Figuring all Angles, Picturing Numbers	15.	
6. Recognize when estimation is appropriate and understand the usefulness of an estimate.	<ul style="list-style-type: none"> a. Recognize when estimation is appropriate and understand the usefulness of an estimate. 	Supplement		

Grade Five
Content Standard #4: Ratio, Proportion, and Percent

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
1. Analyze numerical relationships to explain how a change in one quantity results in a change in another	a. Generate, extend, and transform patterns from descriptions and rules. b. Make generalizations about relationships and rules from patterns and support them with mathematical arguments. c. Understand that fractions, ratios, and percents are used as comparison tools.	MiC Modules: Patterns and Symbols, Some of the Parts, Measure for Measure, Per Sense	22.	
2. Use units to identify and find equivalent rates (5 girls out of every 15 students is equivalent to 1/3 of the students are girls)	a. Develop the concepts of rates and other derived and indirect measurements through active participation and the use of concrete materials.	MiC Module: Some of the Parts, Measure for Measure, supplement		
3. Use concrete models and pictorial representations to develop an understanding of percent and proportion	a. Explore the concepts of ratio, proportion, and percent. b. Recognize the relationship between a fraction, a ratio, and a percent.	MiC Module: Per Sense, supplement		

Grade Five
Content Standard #5: Measurement

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
1. Identify and use appropriate tools to measure customary and metric units	<ul style="list-style-type: none"> a. Measure lengths to the nearest 1/8". b. Measure lengths to the nearest cm. 	MiC Module: Measure for Measure	16b.	
2. Identify, use, and convert within appropriate customary and metric units of measure	<ul style="list-style-type: none"> a. Select appropriate metric or customary units and measures based upon equipment at hand and or measurement devices. c. Understand decimals as they relate to refinement in the measurement process. 	MiC Modules: Measure for Measure	16a. 16d.	
3. Solve measurement problems using length perimeter, area, volume, angle measure, capacity, mass, and temperature.	<ul style="list-style-type: none"> a. Find the perimeter and area of a given figure. 	MiC Module: Figuring All Angles, and supplement with project work.	16c.	
4. Estimate and measure length, perimeter, area, volume, capacity, mass, temperature, and angles.	<ul style="list-style-type: none"> a. Make reasonable estimates of lengths, perimeters, and areas. 	MiC Modules: Figuring All the Angles and Measure for Measure	15. 16b.	
5. Develop formulas for finding area and perimeter of geometric figures. {4 th - develop, 5 th - apply	<ul style="list-style-type: none"> a. Measure/determine perimeters and areas. d. Use concrete experiences to extend understanding of the process of measurement. 	MiC Modules: Figuring All Angles	16c.	
6. Use estimated and actual	<ul style="list-style-type: none"> a. Represent and use decimals in 	MiC Modules:	15.	

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
<p>measurements to describe and compare real life situations. {4th & 5th - apply}</p>	<p>a variety of equivalent forms to solve problems in real-world and mathematical situations. b. Estimate, make and use measurements to describe and compare real life phenomena.</p>	<p>Measure for Measure, Figuring All Angles</p>		
<p>7. Determine elapsed time in years, hours, minutes, and seconds</p>	<p>a. Determine time using a clock and time zone. b. Determine elapsed time.</p>	<p>Supplement</p>	<p>14a. 14b.</p>	
<p>8. Convert time: days to weeks, etc. {4th - develop, 5th - apply}</p>	<p>a. Convert time: days to weeks, etc.</p>	<p>Supplement</p>		
<p>9. Estimate a reasonable answer and solve problems involving money and making change {4th - develop, 5th - apply}</p>	<p>a. Use decimals in a context such as money or measurement.</p>	<p>MiC Module: Measure for Measure</p>		
<p>10. Use appropriate technology to enhance development of measurement concepts {4th - develop, 5th - apply}</p>	<p>a. Use appropriate technology to enhance development of measurement concepts</p>	<p>Supplement</p>		
<p>11. Express answers using appropriate units.</p>	<p>a. Express answers using appropriate units. b. Understand the metric system and its relationship to decimals.</p>	<p>Supplement</p>		

Grade Five

Content Standard #6: Spatial Relationships and Geometry

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
1. Identify, describe, model, classify, discuss, and compare shapes and properties of shapes. {4 th & 5 th - develop}	<ul style="list-style-type: none"> a. Identify point, line, segment, and parallel, perpendicular, and intersecting lines. b. Identify and measure right, obtuse and acute angles. c. Identify and classify polygons. 	MiC Modules: Figuring All Angles	17b.	
2. Construct geometric shapes with appropriate tools such as rulers, protractors, compasses, isometric dot paper, and computer {5 th – develop}	<ul style="list-style-type: none"> a. Develop definitions of geometric shapes from experiences in constructing, from drawing, and from measuring 2- and 3-dimensional figures. 	MiC Modules: Figuring All Angles	17a.	
3. Explore transformations with geometric shapes and designs {5 th – develop}	<ul style="list-style-type: none"> a. Explore geometric figures and their relationships. 	MiC Module: Patterns and Symbols		
4. Identify and describe congruence, similarity, and symmetry {5 th - develop}	<ul style="list-style-type: none"> a. Identify concepts of congruency, similarity, and symmetry. 	MiC Module: Patterns and Symbols and Supplement	18a. 18b.	
5. Identify concepts of area and perimeter, and relate them to geometric shapes.	<ul style="list-style-type: none"> a. Explore angles, perimeters and areas of regular polygons. 	Supplement, Area/perimeter project.	17a.	
6. Develop a conceptual understanding of π using concrete materials {5 th - develop}	<ul style="list-style-type: none"> a. Identify and measure the radius and diameter of a circle. b. Represent and solve problems using geometric models. 	MiC Module: Reallotment (Currently 6 th grade.) Supplement		

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
7. Develop the concept of volume using concrete material models {5 th develop}	a. Develop procedures and formulas appropriate for working with 1-, 2- and 3-dimensional figures.	Math on Call and Supplement		
8. Investigate, explore, and describe the geometry in nature and real-world applications using models, manipulations, and appropriate technology. {5 th - develop}	a. Apply geometric properties and relationships to real world objects. b. Locate points on grids.	MiC Modules: Patterns and Symbols and Figuring all the Angles	18 c.	

Grade Five
Content Standard #7: Probability and Statistics

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
1. Solve problems involving elementary notions of probability and fairness {5 th - develop}	a. Solve problems involving elementary notions of probability and fairness, including justifying answers. b. Extend involvement with probability to coins, spinners, and number cubes.	MiC Module: Take a Chance	21.	
2. Interpret probabilities as fractions {5 th - develop}	a. Interpret probabilities as fractions	MiC Modules: Per Sense and Take a Chance		
3. Explore the probability of events that are certain or impossible {5 th - develop}	a. Explore the probability of events that are certain or impossible.	MiC Module: Take a Chance	21.	
4. Use experimental probability to make and test predictions	a. Systematically collect, organize and represent data. b. Make predictions even when uncertainty exists. c. Make predictions based on experimental and/or theoretical probabilities.	MiC Module: Take a Chance and Picturing Numbers	24. 25.	
5. Explore a variety of ways for systematically recording, organizing, and analyzing data {5 th -develop}	a. Solve problems involving the organization of data. b. Solve extended numerical, spatial, and statistical problems.	MiC Modules: Take a Chance, Per Sense, and Picturing Numbers	24. 25.	

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
6. Construct, organize, and interpret line graphs, circle graphs, bar graphs, and pictographs from a set of data. {4 th - develop, 5 th - apply}	<ul style="list-style-type: none"> a. Interpret graphs and tables. b. Identify from a set of graphs which graph best illustrates the data. c. Construct, read and interpret data from tables, charts and pictures and from bar and line graphs. 	MiC Modules: Per Sense, Patterns and Symbols, and Picturing Numbers	19b.	
7. Recognize patterns and trends, and make predictions based on data from tables, graphs, and charts {4 th & 5 th - apply} {4 th - develop, 5 th - apply}	<ul style="list-style-type: none"> a. Formulate key questions, make inferences and derive convincing arguments that are based on the analysis of data. b. Evaluate arguments, which are based on data analysis. 	MiC Modules: Take a Chance, Patterns and Symbols, and Picturing Numbers	20.	
8. Construct and defend reasonable conjectures from tables, charts, and graphs.	<ul style="list-style-type: none"> a. Construct, read and interpret data from tables, charts and pictures and from bar and line graphs. 	MiC Modules: Take a Chance and Picturing Numbers	19a. 19b. 20.	
9. Develop concepts of mean, median, and mode {5 th - develop}	<ul style="list-style-type: none"> a. Investigate and identify range, mean, median and mode within a set of data. 	MiC Module: Picturing Numbers		
10. Use technology to reinforce and enhance understanding of probability and statistics.	<ul style="list-style-type: none"> a. Use spreadsheets to organize data and generate appropriate graphs. 	Supplement		

Grade Five
Content Standard #8: Patterns

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
1. Recognize, describe, extend, analyze, construct, and explain geometric patterns including transformations	a. Recognize patterns in arrangements of objects, pictures, and strings of symbols. b. Extend patterns involving numbers and attributes.	MiC Module: Patterns and Symbols	22.	
2. Recognize, describe, extend, analyze, construct, and explain numerical sequences.	a. Recognize, describe, extend, analyze, construct, and explain numerical and attribute sequences (including multiplication and division patterns)	MiC Module: Patterns and Symbols	22.	
3. Recognize patterns and explain predictions on trends in graphs, tables, and charts.	a. Describe and represent relationships with tables, graphs, and rules.	MiC Modules: Patterns and Symbols and Picturing Numbers	22.	
4. Develop and test generalizations based on observations of patterns and relationships.	a. Build and construct mathematical models to predict patterns.	MiC Module: Patterns and Symbols	22.	
5. Study patterns and functions to analyze, represent, and generalize functional relationships	a. Use patterns and functions to represent and solve problems. b. Generate, extend, and transform patterns from descriptions and rules.	MiC Module: Patterns and Symbols	22.	
6. State rules for patterns in	a. Identify and create repetitive	MiC Module:	22.	

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
oral and written form.	and symmetric patterns. b. Build and construct mathematical models to predict patterns	Patterns and Symbols		
7. Use appropriate technology to extend understanding of patterns.	a. Use calculators to facilitate the extension of numerical patterns. b. Use spreadsheets to organize data.	MiC Module: Patterns and Symbols and supplement.		

Grade Five
Content Standard #9: Algebra and Functions

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
1. Understand and use the commutative and associative properties of addition and multiplication	<ul style="list-style-type: none"> a. Analyze tables and graphs to identify properties and relationships. b. Implement and understand commutative and associative properties of addition and multiplication. c. Implement and understand identity property and zero property of multiplication. 	MiC Modules: Patterns and Symbols		
2. Construct function tables to represent functions.	<ul style="list-style-type: none"> a. Use functional symbols to represent variables and solve problems. b. Find missing addends and factors. c. Find missing numerators and denominators in equivalent fractions. 	MiC Module: Patterns and Symbols, Some of the Parts, and supplement	22.	
3. Recognize, analyze, and extend patterns and sequences.	<ul style="list-style-type: none"> a. Extend patterns involving numbers and attributes. b. Create equivalent shortened patterns by combining opposites. 	MiC Modules: Patterns and Symbols	22.	
4. Solve one-step and simple	a. Solve simple one-step	MiC Modules:	23.	

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
two-step equations.	algebraic equations. b. Convert between visual and symbolic representations in problem-solving. c. Use symbols to represent patterns efficiently. d. Apply algebraic methods to solve a variety of real-world and mathematical problems.	Patterns and Symbols, Per Sense		
5. Develop, use and explain concepts of equality and inequality.	a. Develop, use and explain concepts of equality and inequality. b. Construct and use a ratio table to find what percent is equivalent to a given fraction or ratio, or vice versa.	MiC Modules: Patterns and Symbols, Per Sense, and Supplement		

Grade Five
Content Standard #10: Discrete Mathematics

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
1. Classify data based on multiple attributes.	a. Identify rules that describe repetitive, symmetric, and growth patterns. b. Reason about patterns using pairing, symmetry, even, odd, and super-even (powers of two) numbers, symbols, and directions.	MiC Module: Patterns and Symbols and Picturing Numbers	22.	
2. Explore combinations and permutations using concrete and pictorial models.	a. Explore combinations and permutations using concrete and pictorial models.	MiC Module: Take a Chance, Patterns and Symbols	24.	
3. Organize data using a variety of formats such as tree diagrams and Venn diagrams.	a. Organize data using a variety of formats such as tree diagrams and Venn diagrams, attribute list, tables, charts, picture representations and matrices.	MiC Module: Take a Chance, Patterns and Symbols	19a. 19b. 24.	
4. Explore a variety of games, puzzles, and counting problems.	a. Explore a variety of games, puzzles, and counting problems	MiC Modules: All		
5. Develop, follow, and describe practical sets of directions.	a. Develop, follow, and describe practical sets of directions.	MiC Module: Figuring All the Angles, Patterns and Symbols, Some of the Parts		
6. Develop, devise, and test strategies for solving logic problems.	a. Develop, devise, and test strategies for solving logic problems.	MiC Modules: All and supplemental logic problems,	24.	

Connecticut Framework	Mansfield Objectives	Focus Lessons / Text Materials / Activities	Grade 6 CMT Objectives	Assessment
		including “puzzles of the week.”		