Subject: Mathematics **GREENEVILLE CITY SCHOOLS - CURRICULUM MAPPING GRID** **Grade Level: 5**

	MONTHS									
STRANDS	**August**	**September**	**October**	**November**	**December**	**January**	**February**	**March**	**April**	**May**
Number and Operations	***Read and write numbers -thousandths to millions (B1)** *Represent whole numbers to 9999 ***Place value – thousandths to millions (B2)** ***Represent, compare, and order whole numbers and decimals from thousandths to millions (B2)** ***Represent whole numbers and two place decimals in expanded form (B1)** *Communicate using mathematical language and symbols	*Explain and demonstrate the inverse nature of addition and subtraction *Communicate the effects of addition and subtraction on size and order of numbers *Recognize reasonable estimates for addition and subtraction ***Use strategies to estimate the result of whole-number computations – addition and subtraction (B2)** ***Add and subtract decimals (including monetary units) (B2)** ***Add and subtract whole numbers and decimals (B2)** ***Solve one- or two-step real-world problems involving addition and subtraction of whole numbers and decimals(B2)**	*Use commutative, associative, and identity properties ***Use strategies to estimate the result of whole-number computations – multiplication (B2)** *Solve multi-step real-world problems ***Solve one- or two-step real-world problems involving multiplication of whole numbers and decimals(B2)**	*Communicate the effects of division and multiplication on size and order of numbers *Recognize reasonable estimates for multiplication and division ***Multiply decimals (including monetary units) (B2)** ***Multiply and divide whole numbers and decimals—2 digit multipliers and divisors (B2)**	*Use various models to show relationships – whole numbers, fractions, mixed numbers, decimals ***Model proper fractions, improper fractions, and mixed numbers (B1/2)** ***Show the relationship between improper fractions and mixed numbers (B2/3)**	***Compare and order fractions using the appropriate symbol (B2)** *Add and subtract fractions with like denominators ***Add and subtract commonly used fractions** *Use models, benchmarks, and equivalent forms to add and subtract commonly used fractions with like and unlike denominators *Recognize and generate equivalent forms of whole numbers, common fractions, and decimals ***Recognize and generate equivalent forms of common fractions, decimals, and percents (B3)**	***Multiply a fraction by a multiple of its denominator (B3)** *Recognize relationship between common fractions and decimals *Identify missing information and/or too much information in real-world problems *Solve real-world problems using decimals, fractions, and percents			
Algebra	***Generalize and extend numerical patterns (B1)** *Demonstrate understanding that an equation is a number sentence stating two quantities are equal	*Apply commutative, associative, and identity properties *Represent and analyze patterns and functions using words, tables, and graphs ***Apply base function rules (B2)** ***Interpret and solve open sentences that involve addition and subtraction (B2)**	*Apply commutative, associative, zero, identity, and distributive properties	***Interpret and solve open sentences that involve multiplication and division (B2)** *Show that division is not commutative				***Generalize and extend geometrical patterns (B1)**		
Geometry								*Identify, compare, and analyze attributes of two-dimensional shapes/figures *Use the attributes of geometric figures to develop definitions ***Draw points, lines, line segments, rays, and angles (B1)** *Describe characteristics of lines and angles *Identify two-dimensional shapes by given defining attributes	***Investigate, predict, and describe the best results of two-dimensional figures (slide, flip, turn) (B2)** *Describe line and rotational symmetry in two-dimensional figures *Describe a motion or a series of motions that will show that two shapes are congruent ***Create and describe mental images of objects, patterns, and paths (B3)**	

								*Use properties to classify geometric figures *Identify and describe the attributes of a circle using appropriate mathematical language *Compare/Contrast congruent and symmetrical geometric figures ***Draw lines of symmetry for two-dimensional geometric figures (B1)** *Explore similarity *Describe location and movement using appropriate mathematical language ***Find specific points in Quadrant I of a coordinate system (B2)**	*Use visualization and spatial reasoning to solve real-world problems *Identify, compare, and analyze attributes of three-dimensional shapes/figures *Identify three-dimensional shapes by given defining attributes *Make and test hypotheses about geometric properties *Construct and draw three-dimensional geometric figures	
Measurement							*Demonstrate understanding that measurements are approximations *Apply and explain appropriate estimation strategies using standard units of measure ***Use estimation to determine in length or volume measurement is reasonable (B1)** ***Measure length to the nearest ¼ inch or centimeter (B1)** *Understand how differences in units affect precision ***Demonstrate an understanding of the relationships among the units within the same system of measurement (B2)** ***Solve real-world problems involving measurement and elapsed time to the quarter hour (B2), addition and subtraction of measurements (B1), and the perimeter and area of rectangles (B3)** *Demonstrate understanding of the concepts of length, perimeter, circumference, area, weight, capacity, volume, elapsed time, and angle measure	***Select and apply appropriate standard units to measure length, perimeter, area, capacity, volume, weight, time, temperature, and angles (B2)** *Select and use appropriate tools for measuring in real-world situations ***Explore what happens to measurements of a two-dimensional shape when the shape is changed in some way (perimeter, area, etc) ***Develop strategies for estimating the perimeters and areas of geometric figures (rectangles) (B2)** ***Develop, understand, and use formulas to find the area of parallelograms and triangles (B3)** *Explain and demonstrate how scale in maps and drawings show relative size and distance *Develop informal strategies to determine the surface area and volume of rectangular solids		

Data Analysis and Probability		*Collect data using observations, surveys, and experiments *Understand how data collection methods affect the nature of the data set ***Represent data using pictographs, bar graphs, tables, line graphs, and circle graphs (B1)** ***Interpret data displayed in tables, pictographs, line graphs, bar graphs, and circle graphs (B1)** ***Use measures of central tendency (mean, median, mode) and relate them to a visual representation of a data set (B2)** ***Determine the median (B2), mode (B2), and** range **of a data set** ***Make predictions and justify conclusions based on data (B3)** *Design investigations to address a question *Examine various representations of data to evaluate how accurately the data is depicted *Explain the importance of sample size in investigations		***Determine the mean (B3), median (B2), mode (B2), and** range **of a data set**						*Determine the likelihood or chance of events as certain, possible, or impossible (B2) *Describe the likelihood or chance of events as likely, unlikely, certain, equally likely, or impossible (B2) *Understand that the measure of the likelihood of an event can be represented as a number from zero to one *Represent the likelihood of an event using a fractional number from zero to one (B2) *Use a sample space to predict the probability of an event (B3)
Related Literature	Weekly Reader Graphs & tables	Weekly Reader Graphs & tables	Weekly Reader Graphs & tables	Weekly Reader Graphs & tables	Weekly Reader Graphs & tables	Weekly Reader Graphs & tables	Weekly Reader Graphs & tables	Weekly Reader Graphs & tables	Weekly Reader Graphs & tables	Weekly Reader Graphs & tables
Field Studies	*Estimate, calculate, and evaluate data with graphs and tables – Science	*Estimate, calculate, and evaluate data with graphs and tables – Science	*Estimate, calculate, and evaluate data with graphs and tables – Science	*Estimate, calculate, and evaluate data with graphs and tables – Science	*Estimate, calculate, and evaluate data with graphs and tables – Science	*Estimate, calculate, and evaluate data with graphs and tables – Science	*Estimate, calculate, and evaluate data with graphs and tables – Science	*Estimate, calculate, and evaluate data with graphs and tables – Science	*Estimate, calculate, and evaluate data with graphs and tables – Science	*Estimate, calculate, and evaluate data with graphs and tables – Science
Technology	*Computer math games *CCC *Calculators	*Computer math games *CCC *Calculators	*Computer math games *CCC *Calculators	*Computer math games *CCC *Calculators	*Computer math games *CCC *Calculators	*Computer math games *CCC *Calculators	*Computer math games *CCC *Calculators	*Computer math games *CCC *Calculators	*Computer math games *CCC *Calculators	*Computer math games *CCC *Calculators
Assessment	*Place Chart Quiz *Prepared Test *Quizzes	*Multiplication Fact Test *Prepared Test *Skittles Graphing Project *Computer Graphing *Project – written and oral presentation *Quizzes	*Multiplication and Division Fact Tests *Teacher-Made Test – Multiplication *"M & M Math" Project *Quizzes	*Multiplication and Division Fact Tests *Teacher-Made Test – Division *Quizzes	*Chapter Notes *Quizzes *Prepared Test *Fractional Friend	*Chapter Notes *Quizzes *Vocabulary Test *Prepared Test	*Chapter Notes *Quizzes *Teacher-Made Test	*Geometry Notebook *Polygon Creation *Quizzes *Teacher-Made Test	*Construction of a three-dimensional figure *Quizzes *Teacher-Made Test	*Checkbook Project *Restaurant Project *End-of-the-Year System-Wide Math Test