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Martensdale-St. Marys Community School Math Curriculum

Standard 1: Students can understand and apply a variety of math concepts. Grade: 3rd

Benchmark; The student will:	***Grade Level Objectives***	***Instructional Strategies***	***Assessments***	***Instructional Timeline***
A. Understand and apply number properties and operations.	1.A.3.1: develop an understanding of addition, subtraction, multiplication, and division concepts and strategies for basic facts and related facts (T)	Develop concepts of addition, subtraction, multiplication, and division through the use of different representations, groups, arrays, models, skip counting. Use commutative, associative and distributive properties to develop strategies and generalizations. Relate addition/subtraction and multiplication/division as inverse operations Consider the context in which a problem is situated to select the most useful form Be able to make comparisons Solve and create story problems to match expressions or equations.	Timed tests Activity masters (worksheet) Tests	
	1.A.3.2: develop fluency and quick recall of addition, subtraction and multiplication facts and related division facts	Develop fluency with efficient procedures for adding subtracting, multiplying and dividing whole numbers and use them to solve problems. Extend work with basic facts to develop fluency and recall	Timed tests Activity masters (worksheet)	

	(T)	Apply understanding of models (groups, arrays, area models) place value, and properties of operations Apply their understanding of models for relationships between addition/multiplication, multiplication/division	Tests	
	1.A.3.3: develop fluency with multi-digit addition, subtraction, multiplication and division problems	Show the inverse relationships between addition/subtraction, and multiplication/division Develop and demonstrate quick recall of basic facts Solve word problems using a variety of strategies.	Timed tests Activity masters (worksheet) Tests	
	1.A.3.4: extend place value concepts to represent and compare whole numbers (T)	Extend their understanding of place value to numbers up to 1,000, 10,000, 100,000 and millions in various contexts Understand the base-ten system of writing whole numbers through place-value patterns and models	Activity masters (worksheet) Tests	
	1.A.3.5: develop an understanding of commonly used fractions, including recognizing and generating equivalent representations and introduce the relationship of fractions and decimals (T)	Develop and understanding of the meanings and uses of fractions to represent parts of a whole, parts of a set, or points or distances on a number line. Solve problems that involve comparing and ordering fractions Understand and use models including the number line, to identify equivalent fractions including numbers greater than one. Connect and extend their understanding of fractions to modeling, reading and writing decimals Recognize and generate equivalent forms of commonly used fractions	Activity masters (worksheet) Tests	

B. Understand and apply concepts and procedures of algebra.	1.B.3.1: represent and analyze patterns and relationships involving addition, subtraction, multiplication, and division (T)	Build a foundation using multiplicative contexts for later understanding of functional relationships	Activity masters (worksheet) Tests	
	1.B.3.2: identify the commutative, associative, and distributive properties and use them to compute with whole number	Explore commutative and associative properties Use properties of addition and multiplication to multiply and divide whole numbers	Activity masters (worksheet) Tests	
	1.B.3.3: represents and analyze patterns and functions, using words, tables, and graphs (C, T)	Describe patterns verbally and represent them with tables or symbols Continue to identify, describe, and extend numeric patterns involving all operations Identify patterns and explore predicting how patterns will continue Create graphs of simple equations	Activity masters (worksheet) tables Tests	
C. understand and apply concepts of geometry.	1.C.3.1: recognize and describe shapes and structures in the physical environment	Identify, name and sort shapes (circles, triangles, rectangles, spheres, cubes, squares, angles, lines, etc.)	Activity masters (worksheet) Tests	
	1.C.3.2: explore congruence and symmetry	Identify figures that are congruent and symmetrical	Activity masters (worksheet) Tests	
	1.C.3.3: predict and describe the results of sliding, flipping, and turning	Identify flips, slides, and turns (shapes)	Activity masters (worksheet) Tests	
	1.C.3.4: use geometric models to solve problems such as determining perimeter, area, volume, and surface area (G) (C)	Form an understanding of perimeter by finding the total distance or length around the shape Recognize area Connect area measure to multiplication Recognize volume as three-dimensional space	Activity masters (worksheet) Tests	

	1.C.3.5: use ordered pairs on a coordinate grid to describe points	Learn how to use two numbers to name points (ordered pair) on a coordinate grid	Activity masters (worksheet) Tests	
D. understand and apply concepts of measurement.	1.D.3.1: select and apply appropriate standard (customary and metric) units and tools to measure, length/distance, temperature, capacity, weight, and the size of angles (G, MCGF)	Identify attributes that are measurable such as length, volume, weight, and area and use appropriate measurement tools and units Estimate and measure length using metric and customary units	Activity masters (worksheet) Tests	
	1.D.3.2 explore using time and money (C, G, T)	Associate the time of day with everyday events Use both analog and digital clocks to tell time to the minute and elapsed time Count money amounts Introduce counting back change	Activity masters (worksheet) Tests	
E. understand and apply concepts in probability and statistics.	1.E.3.1: introduce the distribution of data using mean, median, mode and range	Introduce terms mean, median mode and range and apply to data examples	Activity masters (worksheet) Tests	
	1.E.3.2: propose and justify conclusions and predictions based on data	Learn how to describe and collect data, make a prediction to describe the data, and justify predictions	Activity masters (worksheet) Tests	
	1.E.3.3: predict the ***probability*** of simple experiments and events and test the predictions and discuss the degree of likelihood using words such as certain, equally, likely, or impossible (G)	Examine the probability of experiments and their outcomes Understand probability as the measurement of the likelihood of events Learn to estimate probability of events	Activity masters (worksheet) Tests	

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Standard 2: Students can understand and apply methods of estimation.
Grade: 3rd

Benchmark: ***The students will:***	***Grade Level Objectives***	***Instructional Strategies***	***Assessments***	***Instructional Timeline***
A. understand and apply concepts and procedures of standard rounding and number sense.	2.A.3.1: develop the ability to estimate the results of computation with whole numbers and be able to judge reasonableness	Generalize patterns of multiplying and dividing whole numbers by 10, 100, and 1000 Be able to estimate sums and differences with whole numbers Select and apply appropriate strategies	Activity masters (worksheet) Tests	
	2.A.3.2: Develop the ability to round whole numbers	round whole numbers the nearest tens, hundreds, and thousands	Activity masters (worksheet) Tests	
	2.A.3.3: estimate the answer to an addition and subtraction problems before computing and determine if the computed answer is correct	Estimate an answer prior to computing	Activity masters (worksheet) Tests	
	2.A.3.4: use benchmarks to help develop number sense (G) (C)	Understand and use common benchmarks Learn about the position of numbers in the base-ten number system and write in standard, expanded and word forms.	Activity masters (worksheet) Tests	

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Standard 3: Students can solve a variety of math problems.
Grade: 3rd

Benchmark: ***The student will:***	***Grade Level Objectives***	***Instructional Strategies***	***Assessments***	***Instructional Timeline***
A. solve math problems	3.A.3.1: Can solve single step and multiple step math problems (MCGF)	Solve single step story problems Solve multiple step story problems.	Activity masters (worksheet) Tests	
	3.A.3.2: identify extraneous and insufficient information in problems	Solve story problems with too much or not enough information	Activity masters (worksheet) Tests	
B. understand and apply problem-solving approaches and procedures.	3.B.3.1: choose a method for solving a problem (MCGF)	Decide operation(s) for solving a story problem	Activity masters (worksheet) Tests	

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Standard 4: Students can interpret data presented in a variety of ways.
Grade: 3rd

Benchmark: ***The student will:***	***Grade Level Objectives***	***Instructional Strategies***	***Assessments***	***Instructional Timeline***
A. use tables and graphs to locate and read information.	4.A.3.1: represent and analyze data using tallies, pictographs, table, line plots, bar graphs, circle graphs and line graphs	Construct and analyze tables, bar graphs, picture graphs, and line plots and use them to address a question	Activity masters (worksheet) Tables Tests	
	4.A.3.2: construct and analyze tables, bar graphs, picture graphs and line plots (C)	Recognize the differences representing categorical and numerical data Construct and analyze tables, bar graphs, picture graphs, and line plots and use them to address a question Use their understanding of whole numbers, and fractions	Activity masters (worksheet) Tables, graphs, line plots Tests	
B. interpret data from a variety of sources.	4.B.3.1: compare different representations of the same data and evaluate how well each representation shows important aspects of the data (C)	Compare data using different types of graphs	Activity masters (worksheet) graphs Tests	