

Martensdale-St. Marys Community School

Math Curriculum

Standard 1: Students can understand and apply a variety of math concepts.
Grade: 4th

Benchmark; The student will:	Grade Level Objectives	Instructional Strategies	Assessments	Instructional Timeline
A. understand and apply number properties and operations.	1.A.4.1: develop an understand of addition, subtraction, multiplication, and division concepts and strategies for basic facts and related facts (C,T,G,)	use text book, make flash cards, review using worksheets, using models, develop fun strategies, games(including websites)	written test, teacher observation	
	1.A.4.2: develop fluency and quick recall of addition, subtraction and multiplication facts and related division facts (C,T,G,)	Extend and review work from addition/subtraction/multiplication/division facts using strategies to master fluency of facts, use flashcards, group work, fun games including websites	written test, teacher observation	
	1.A.4.3: develop fluency with multi-digit addition, subtraction, multiplication and division facts (C,T,G,)	Extend and review work from addition/subtraction/multiplication/division facts using strategies to master fluency of facts, use flashcards, group work, fun games	written test, teacher observation	
	1.A.4.4: extend place value concepts to represent and compare whole numbers (C,T,G,)	Use text book, review wkshts., models such as base-ten blocks and place value charts.	written test, teacher observation	

	1.A.4.5: develop an understanding of commonly used fractions, including recognizing and generating equivalent representations and introduce the relationship of fractions and decimals (C,T,G,)	Use text book, review wkshts., models such as base-ten blocks and place value charts, number line, drawing models	written test, teacher observation	
B. understand and apply concepts and procedures of algebra.	1.B.4.1: represent and analyze patterns and relationships involving addition, subtraction, multiplication, and division (C,T,G,)	Extend and review work from addition/subtraction/multiplication/division facts using strategies to master fluency of facts, use flashcards, group work, fun games including websites	written test, teacher observation	
	1.B.4.2: identify the commutative, associative, and distributive properties and use them to compute with whole number	Understanding addition/multiplication to implement into properties, teaching the basics focusing on patterns, functions, general arithmetic, and solving equations	written test, teacher observation	
	1.B.4.3: represents and analyze patterns and functions, using words, tables, and graphs (C,T,G,)	Create graphs of simple equations, technique including words, tables, numbers symbols for organizing and expressing ideas about relationships and functions	written test, teacher observation	
C. understand and apply concepts of geometry.	1.C.4.1: explore congruence and similarity (C,T,G,)	Understanding attributes and properties of two-dimensional space through building, drawing, and analyzing, compare to real world with buildings, housing, large/small objects	written test, teacher observation	
	1.C.4.2: predict and describe the results of sliding, flipping, and turning (C,T,G,)	Use life size objects to compare and relate to, line/rotational symmetry, transforming polygons to form new polygons	written test, teacher observation	
	1.C.4.3: use geometric	Using many objects to measure all geometric	written test, teacher	

	models to solve problems such as determining perimeter, area, volume, and surface area (C,T,G,)	concepts, math textbook, review using wkshts.	observation	
	1.C.4.4: use ordered pairs on a coordinate grid to describe points	Using grids/graphs, use text book, review wkshts, modeling, finding methods to measure distance between two locations on a grid along horizontal/vertical lines	written test, teacher observation	
D. understand and apply concepts of measurement.	1.D.4.1: select and apply appropriate standard (customary and metric) units and tools to measure time, money, length/distance, temperature, volume, weight, and the size of angles (C,T,G, MCG)	Using many objects to measure all geometric concepts, math textbook, review using wkshts., incorporate: manipulatives, real money, clocks, drawing models	written test, teacher observation	
	1.D.4.2 : Estimate and measure: (inches, liters,& lbs., etc.) (C,T,G,)	Measuring real life objects (math book= 1 foot), math wkshts./textbook	written test, teacher observation	
E. understand and apply concepts in probability and statistics.	1.E.4.1: introduce the distribution of data using mean, median, mode and range (C,T,G,)	Understand terms using textbook, math wkshts., practice using real life data, noting similarities/differences between the two sets and develop idea of a 'average' value,	written test, teacher observation	
	1.E.4.2: propose and justify conclusions and predictions based on data (C,T,G,)	Learn how to collect and describe data using surveys and experiments. Do experiments collecting data, interpreting it into graph, table, chart, etc. present to class	Teacher observation, survey/experimental data from graph, chart, table, etc.,	

			presentation	
	1.E.4.3: 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 (C,T,G)	Use textbook for explanation, play games to find probability outcomes, use real life occasions to determine probability, equality, likelihood of possibility	written test, teacher observation	

**Martensdale-St. Marys Community School
Math Curriculum**

**Standard 2: Students can understand and apply methods of estimation.
Grade: 4th**

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.4.1 estimate the results of computation with whole numbers and be able to judge reasonableness (C,T,G,)	Textbook, review wkshsts., understand the relationship between whole numbers, numbers in-between and the importance/why you round, use real life problems in which you would round or estimate	written test, teacher observation	
	2.A.4.2: round whole numbers the nearest tens, hundreds, and thousands (C,T,G,)	Practice using textbook, wkshts, real life situations, use manipulatives for basic rounding/estimating	written test, teacher observation	
	2.A.4.3: develop number sense (C,T,G,)	Practice ordering of numbers to help understand rounding/estimating	written test, teacher observation	

**Martensdale-St. Marys Community School
Math Curriculum**

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

Grade: 4th

Benchmark: The student will:	Grade Level Objectives	Instructional Strategies	Assessments	Instructional Timeline
A. solve math problems	3.A.4.1: can solve single step and multiple step math problems (C,T,G,)	Use textbook, math wkshts., use real life story problems, use manipulatives	written test, teacher observation	
	3.A.4.2: identify extraneous and insufficient information in problems (C,T,G,)	review what is important to have/not have in story problems and how to work them out (steps), complete many story problems leaving things out then going back in to figure correct answer out	written test, teacher observation	
B. understand and apply problem-solving approaches and procedures.	3.B.4.1: choose a method for solving a problem (C,T,G,)	Understanding different approaches to finding the answer	written test, teacher observation	

**Martensdale-St. Marys Community School
Math Curriculum**

**Standard 4: Students can interpret data presented in a variety of ways.
Grade: 4th**

Benchmark: The student will:	Grade Level Objectives	Instructional Strategies	Assessments	Instructional Timeline
A. use tables and graphs to locate and read information.	4.A.4.1: represent and analyze data using tallies, pictographs, table, line plots, bar graphs, circle graphs and line graphs (C,T,G,)	practice collecting and describe data using surveys and experiments. Do experiments collecting data, interpreting it into graph, table, chart, etc. present to class	Teacher observation, survey/experimental data from graph, chart, table, etc., presentation	
	4.A.4.2: construct and analyze tables, bar graphs, picture graphs and line plots (C,T,G,)	Do experiments collecting data, interpreting it into graph, table, chart, etc. present to class	Teacher observation, survey/experimental data from graph, chart, table, etc., presentation	
B. interpret data from a variety of sources.	4.B.4.1: compare different representations of the same data and evaluate how well each representation shows important aspects of the data (C,T,G,)	Compare different graphs: a circle graph/line graph, bar graph/line graph. Use text book for explanations then after doing survey/data experiments have students come up with a graph that interprets the same data using different graph	Teacher observation, survey/experimental data from graph, chart, table, etc., presentation	