

Meridian Joint School District  
 Benchmark Mathematics Assessments  
 Test Blueprint – Grade 5

Grade	Standard	Goal	Objective Assessed	Test Distribution	
				Benchmark Test	ISAT (for comparison)
5	1 Number and Operation	1.1 Understand and use numbers	1.1.2 1.1.3 1.1.4 1.1.5 1.1.6	36.6%	29-33%
		1.2 Perform computations accurately	1.2.2 1.2.3 1.2.4		
		1.3 Estimate and judge reasonableness of results	1.3.1		
	2 Concepts and Principles of Measurement	2.1 Understand and use customary and metric measurements	2.1.1 2.1.5	16.6%	13-18%
	3 Concepts and Language of Algebra and Functions	3.1 Use algebraic symbolism as a tool to represent mathematical relationships	3.1.2	13.3%	18-22%
		3.2 Evaluate algebraic expressions	3.2.1		
		3.3 Solve algebraic equations and inequalities	3.3.1		
		3.4 Understand the concept of functions	3.4.1		
	4 Concepts and Principles of Geometry	4.1 Apply concepts of size, shape, and spatial relationships	4.1.1 4.1.2 4.1.3 4.1.5	16.6%	16-20%
		4.3 Apply graphing in two dimensions	4.3.1		
	5 Data Analysis, Probability, and Statistics	5.1 Understand data analysis	5.1.1	16.6%	13-16%
		5.2 Collect, organize, and display data	5.2.1		
5.4 Understand basic concepts of probability		5.4.1			
				<b>Total=100%</b>	

<b>Topic (Number of Questions)</b>	<b>Objective #</b>	<b>State Objective Curriculum Item</b>
<b>Standard 1 - Number &amp; Operation</b>		
Identify & understand place value from 0.001 to 1,000,000. (1)	5.M.1.1.2	<b>Identify and apply place value in whole numbers and decimal numbers to thousandths.</b>
Compare and order fractions. (2)	5.M.1.1.4	<b>Compare and order commonly used fractions and their equivalents.</b> <ul style="list-style-type: none"> <li>Fractions - denominators 2-6, 8, 10, 12, 16, 20, 24, 25</li> </ul>
Identify decimal equivalents of fractions. (3)	5.M.1.1.5	<b>Identify decimal equivalents of commonly used fractions.</b> <ul style="list-style-type: none"> <li>Fraction denominator 2, 4, 5, 8, 10, 20 and 25</li> </ul>
List factors of a number. (4) List multiples of a number. (5)	5.M.1.1.6	<b>Apply the number theory concepts of primes, composites, multiples, and factors.</b> <ul style="list-style-type: none"> <li>List factors of numbers less than 100</li> <li>List multiples of numbers less than 100</li> </ul>
Add and subtract decimals with money. (6)	5.M.1.2.2	<b>Add and subtract decimal numbers through thousandths.</b>
Multiply whole numbers. (7,8)	5.M.1.2.3	<b>Multiply and divide whole numbers.</b> <ul style="list-style-type: none"> <li>Multiplication - 3-digit by 2-digit</li> </ul>
Divide whole numbers. (7,8)	5.M.1.2.3	<b>Multiply and divide whole numbers.</b> <ul style="list-style-type: none"> <li>Division - two digit divisor</li> </ul>
Add and subtract fractions with like denominators. (9)	5.M.1.2.4	<b>Add and subtract fractions with like denominators without simplification.</b>
Estimating a product. (10,11)	5.M.1.3.1	<b>Estimate to predict computation results.</b>
Rounding a number. (10,11)	5.M.1.3.1	<b>Estimate to predict computation results.</b> <ul style="list-style-type: none"> <li>Rounding to nearest 1,000 and decimals to 0.00</li> </ul>
<b>Standard 2 - Measurement</b>		
Select appropriate unit of length in customary or metric system. (12,13,14)	5.M.2.1.1	<b>Select and use appropriate units and tools to make formal measurements of length, temperature, weight, and volume (capacity) in both systems.</b> <ul style="list-style-type: none"> <li>Length – choose appropriate measurement (inch, foot, yard, mile, cm, m)</li> <li>Length – choose appropriate measurement (mm)</li> </ul>
Select appropriate unit of mass or capacity in customary or metric system. (12,13,14)	5.M.2.1.1	<b>Select and use appropriate units and tools to make formal measurements of length, temperature, weight, and volume (capacity) in both systems.</b> <ul style="list-style-type: none"> <li>Mass (weight) - choose appropriate measurement (g, kg, ounce, lb, ton)</li> <li>Capacity- choose the appropriate measurement (cup, quart, gallon, mL, L)</li> </ul>
Select appropriate tool for measuring length in customary or metric system. (12,13,14)	5.M.2.1.1	<b>Select and use appropriate units and tools to make formal measurements of length, temperature, weight, and volume (capacity) in both systems.</b> <ul style="list-style-type: none"> <li>Length – choose appropriate measurement (inch, foot, yard, mile, mm, cm, m)</li> </ul>
Calculate perimeter and area of a rectangle or square. (15,16)	5.M.2.1.5	<b>Calculate the perimeter of polygons and the area of rectangles and squares.</b>
<b>Standard 3 – Algebra</b>		
Translate simple word statements into numeric expressions. (17)	5.M.3.1.2	<b>Translate simple word statements for addition and multiplication into numeric expressions.</b>
Justify distributive property. (18)	5.M.3.2.1	<b>Use the following properties as they relate to addition and multiplication: commutative, associative, and distributive.</b>
Solve missing factor equations. (19)	5.M.3.3.1	<b>Solve missing factor equations.</b>
Identify the rule (function) for a pattern. (20)	5.M.3.4.1	<b>Identify the rule for a pattern using whole numbers and extend the pattern.</b>
<b>Standard 4 - Geometry</b>		
Identify attributes of geometrical shapes. (21)	5.M.4.1.1	<b>Identify, compare and analyze attributes of polygons and polyhedra and develop vocabulary to describe the attributes.</b> <ul style="list-style-type: none"> <li>Identify quadrilaterals (square, rectangle, rhombus, trapezoid, parallelogram)</li> <li>Identify pentagon, hexagon, octagon</li> <li>Polyhedra - faces, edges, vertices (cube, cylinder, cone, sphere, pyramid, rectangular prism)</li> </ul>
Classify angles. (22)	5.M.4.1.2	<b>Classify angles without formal measures as acute, right, obtuse, and/or straight.</b>
Identify points, lines, line segments and rays. (23)	5.M.4.1.3	<b>Identify and label points, lines, line segments, rays, and angles.</b>
Identify shapes as congruent, similar or symmetrical. (24)	5.M.4.1.5	<b>Identify shapes as congruent, similar, or symmetrical.</b>
Identify ordered pair in the first quadrant on a coordinate grid. (25)	5.M.4.3.1	<b>Use ordered pairs to identify and plot points in the first quadrant on a coordinate grid.</b>
<b>Standard 5 – Data Analysis</b>		
Read & interpret charts & graphs (26,27)	5.M.5.1.1	<b>Read and interpret tables, charts, bar graphs, and line graphs.</b>
Choose appropriate type of graph (bar graph or line graph). (28)	5.M.5.2.1	<b>Collect, organize, and display the data with appropriate notation in tables, charts, bar graphs, and line graphs.</b>
Predict result of probability experiment. (29,30)	5.M.5.4.1	<b>Predict, perform, and record results of simple probability experiments using fraction notation.</b>

