

New Mexico Expanded Grade Band Expectations Math: Grades 5 and 6

Strand: NUMBER AND OPERATIONS

Standard I: Students will understand numerical concepts and mathematical operations.

	5–8 Benchmark 1: Understand numbers, ways of representing numbers, relationships among numbers, and number systems		5–8 Benchmark 2: Understand the meaning of operations and how they relate to one another		5–8 Benchmark 3: Compute fluently and make reasonable estimates	
ENGAGEMENT	The student	GLPS		GLPS		GLPS
	<i>1-a attends to mathematical materials and stimuli that involve sensory input (e.g., sight, sound, feel) of numbers</i>	5.1 6.1	<i>1-a attends to mathematical materials and stimuli that involve sensory input (e.g., sight, sound, feel) of math operations</i>	5.5 6.5	<i>1-a attends to mathematical materials and stimuli that involve sensory input (e.g., sight, sound, feel) of computation and estimation</i>	5.1 5.3 6.1 6.7
	<i>2-a maintains and shifts attention between two or more mathematical objects, activities, or classroom partners that involve sensory input (e.g., sight, sound, feel) of numbers</i>	5.1 6.1	<i>2-a maintains and shifts attention between two or more mathematical objects, activities, or classroom partners that involve sensory input (e.g., sight, sound, feel) of math operations</i>	5.5 6.5	2-a maintains and shifts attention between two or more mathematical objects, activities, or classroom partners that involve sensory input (e.g., sight, sound, feel) of computation and estimation	5.1 5.3 6.1 6.7

	5–8 Benchmark 1: Understand numbers, ways of representing numbers, relationships among numbers, and number systems		5–8 Benchmark 2: Understand the meaning of operations and how they relate to one another		5–8 Benchmark 3: Compute fluently and make reasonable estimates	
	<i>2-b maintains interactions with others while participating in math activities that involve sensory input (e.g., sight, sound, feel) of numbers</i>	5.1 6.1	<i>2-b maintains interactions with others while participating in math activities that involve sensory input (e.g., sight, sound, feel) of math operations</i>	5.5 6.5	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of computation and estimation</i>	5.1 5.3 6.1 6.7
PRE-SYMBOLIC	The student	GLPS		GLPS		GLPS
	<i>3-a matches sets with the same number of objects</i>	5.2 6.3	<i>3-a matches sets with the same number of objects</i>	5.5	<i>3-a matches sets with the same number of objects</i>	5.3 6.2
	<i>3-b matches objects to pictures (visual or tactile)</i>	5.1 5.2 6.3	<i>3-b responds to changes in quantity</i>	5.5	<i>3-b matches graphic or textural math symbols</i>	5.1
	<i>4-a places objects in order (serialization)</i>	5.1 6.1	<i>4-a uses correct numerals to identify quantities of objects up to 30</i>	5.5	4-a counts from 1–50 in appropriate order	5.1
	<i>4-b identifies numerals from 0–10</i>	5.1 5.2 6.1	<i>4-b places numerals between 1 and 9 in order</i>	5.5	4-b identifies larger and smaller quantities of objects	5.1
	<i>4-c demonstrates that objects counted later in a sequence represent greater quantities</i>	5.2 6.1	<i>4-c compares sets of up to 30 objects by counting</i>	5.5	4-c matches quantities of objects to numerals	5.1
	<i>4-d produces numerals between 1 and 9</i>	5.1 6.1				
	<i>4-e identifies which numerals are more or less than other numbers</i>	5.1 6.1				

	5–8 Benchmark 1: Understand numbers, ways of representing numbers, relationships among numbers, and number systems		5–8 Benchmark 2: Understand the meaning of operations and how they relate to one another		5–8 Benchmark 3: Compute fluently and make reasonable estimates	
	<i>4-f demonstrates that the number of items in a set is the same even though rearranged</i>	5.1				
SYMBOLIC	The student	GLPS		GLPS		GLPS
	<i>5-a recognizes that the last number in the count represents the total number of objects (enumeration and cardinality)</i>	5.1 6.1	<i>5-a demonstrates that the number of items in a set is the same even though the set has been rearranged</i>	5.5	<i>5-a demonstrates that objects counted later in a sequence represent greater quantities than the numbers counted earlier</i>	5.3 6.2
	<i>5-b demonstrates that numbers counted later in a sequence represent greater quantities up to 30</i>	5.1 6.1	<i>5-b adds one more to a set</i>	5.5	<i>5-b makes comparisons involving quantity using term “about”</i>	5.3 6.2
	<i>5-c places number symbols up to 10 in order</i>	5.1	<i>6-a demonstrates that “add” means combine/put together, and “subtract” means take away</i>	5.5 6.5	<i>6-a identifies which numerals are greater or less than other numerals from 0 to 20</i>	5.3 6.2
	<i>6-a places numerals 0 to 10 in order</i>	5.1 6.1	<i>6-b uses a calculator or relevant technology to perform basic math calculations</i>	5.5 6.5	<i>6-b discusses whether problem requires an exact or approximate answer</i>	5.7 6.3
	<i>6-b skip counts by 2</i>	6.4				

	5–8 Benchmark 1: Understand numbers, ways of representing numbers, relationships among numbers, and number systems		5–8 Benchmark 2: Understand the meaning of operations and how they relate to one another		5–8 Benchmark 3: Compute fluently and make reasonable estimates	
EXTENDED SYMBOLIC	The student	GLPS		GLPS		GLPS
	<i>7-a uses numbers to give abstract information</i>	6.3	7-a solves problems involving addition and subtraction of whole numbers up to 30	5.5 6.5	<i>7-a estimates numerical quantities using terms “more,” “less,” “fewer” or “equal”</i>	5.3 6.2
	<i>7-b provides correct quantity of up to 20 objects</i>	5.1 5.2	<i>8-a selects the appropriate operation(s) to perform in a given problem (e.g., addition, subtraction, and multiplication)</i>	5.5 6.5	7-b solves problems involving addition and subtraction of whole numbers up to 30	5.3 6.2
	7-c skip counts by 2 up to 30	6.4	8-b solves addition, subtraction, and multiplication problems using whole numbers up to 30	5.5 6.5	<i>8-a compares estimations with calculated solutions</i>	5.3 6.2
	<i>8-a constructs a number line demonstrating whole numbers between 0 and 30</i>	5.5 6.5			<i>8-b uses a variety of computational methods to estimate quantities involving whole numbers</i>	5.3 6.1 6.2
	8-b places numerals from 0 to 30 in order	5.1 6.1			<i>8-c demonstrates that addition and subtraction are inverse operations</i>	5.5
	<i>8-c uses equivalent representations for positive rational numbers (e.g., half a dollar equals 50 cents)</i>	5.2 6.2				

	5–8 Benchmark 1: Understand numbers, ways of representing numbers, relationships among numbers, and number systems		5–8 Benchmark 2: Understand the meaning of operations and how they relate to one another		5–8 Benchmark 3: Compute fluently and make reasonable estimates	
	8-d skip counts by 2, 5, and 10 up to 50	6.4				

Strand: Algebra
Standard II: Students will understand algebraic concepts and applications.

	5–8 Benchmark 1: Understand patterns, relations, and functions		5–8 Benchmark 2: Represent and analyze mathematical situations and structures using algebraic symbols		5–8 Benchmark 3: Use mathematical models to represent and understand quantitative relationships		5–8 Benchmark 4: Analyze changes in various contexts	
ENGAGEMENT	The student	GLPS		GLPS		GLPS		GLPS
	1-a attends to mathematical stimuli and materials that involve sensory input (e.g., sight, sound, feel) of math patterns	5.3 6.5	<i>1-a attends to mathematical stimuli and materials that involve sensory input (e.g., sight, sound, feel) of algebraic symbols</i>	5.2 5.3 6.4	1-a attends to mathematical stimuli and materials that involve sensory input (e.g., sight, sound, feel) of quantity	5.2 6.2	<i>1-a attends to mathematical stimuli and materials that involve sensory input (e.g., sight, sound, feel) of change</i>	5.2 6.2

	5–8 Benchmark 1: Understand patterns, relations, and functions		5–8 Benchmark 2: Represent and analyze mathematical situations and structures using algebraic symbols		5–8 Benchmark 3: Use mathematical models to represent and understand quantitative relationships		5–8 Benchmark 4: Analyze changes in various contexts	
	<i>2-a maintains and shifts attention between two or more mathematical objects, activities, or classroom partners that involve sensory input (e.g., sight, sound, feel) of math patterns</i>	5.3 6.5	<i>2-a maintains and shifts attention between two or more mathematical objects, activities, or classroom partners that involve sensory input (e.g., sight, sound, feel) of algebraic symbols</i>	5.2 5.3 6.4	<i>2-a maintains and shifts attention between two or more mathematical objects, activities, or classroom partners that involve sensory input (e.g., sight, sound, feel) of quantity</i>	5.2 6.2	<i>1-b shows anticipation for familiar math activities that involve sensory input (e.g., sight, sound, feel) of change</i>	5.2 6.2
	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of math patterns</i>	5.3 6.5	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of algebraic symbols</i>	5.2 5.3 6.4	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of quantity</i>	5.2 6.2	<i>2-a maintains and shifts attention between two or more mathematical objects, activities, or classroom partners that involve sensory input (e.g., sight, sound, feel) of change</i>	5.2 6.2

	5–8 Benchmark 1: Understand patterns, relations, and functions		5–8 Benchmark 2: Represent and analyze mathematical situations and structures using algebraic symbols		5–8 Benchmark 3: Use mathematical models to represent and understand quantitative relationships		5–8 Benchmark 4: Analyze changes in various contexts	
							<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of change</i>	5.2 6.2

	5–8 Benchmark 1: Understand patterns, relations, and functions		5–8 Benchmark 2: Represent and analyze mathematical situations and structures using algebraic symbols		5–8 Benchmark 3: Use mathematical models to represent and understand quantitative relationships		5–8 Benchmark 4: Analyze changes in various contexts	
PRE-SYMBOLIC	The student	GLPS		GLPS		GLPS		GLPS
	<i>3-a matches identical patterns</i>	5.2	<i>3-a matches identical objects that represent algebraic symbols</i>	5.3	<i>3-a uses numbers to indicate concrete preference</i>	5.1	<i>3-a matches identical tables and graphs</i>	5.1 6.2
	4-a completes a simple pattern (e.g., ABAB_)	5.3	<i>4-a matches the numeral with the number of objects in a set up to 30</i>	6.3	3-b matches identical math objects	5.1	<i>4-a matches equivalent sets of objects up to 30</i>	5.1 6.2
	<i>4-b recognizes a pattern presented in a variety of formats (e.g., numeric, visual, oral, written, kinesthetic, pictorial)</i>	5.3	<i>4-b matches equivalent sets of objects and numerals up to 30</i>	6.3	4-a separates mathematical objects into at least two sets based upon specific attributes	5.1	<i>4-b recognizes changes in quantity</i>	5.1 6.1

	5–8 Benchmark 1: Understand patterns, relations, and functions		5–8 Benchmark 2: Represent and analyze mathematical situations and structures using algebraic symbols		5–8 Benchmark 3: Use mathematical models to represent and understand quantitative relationships		5–8 Benchmark 4: Analyze changes in various contexts	
SYMBOLIC	The student	GLPS		GLPS		GLPS		GLPS
	<i>5-a matches and manipulates numerals to generate familiar patterns</i>	5.2	<i>5-a compares sets using terms “less,” “more,” and “equal”</i>	5.3 6.3	<i>5-a separates mathematical objects into at least three sets based upon specific attributes</i>	5.1	<i>5-a recognizes patterns of change from everyday life</i>	5.1 6.1
	<i>5-b generates simple numerical patterns upon request</i>	5.4	<i>5-b represents simple addition and subtraction number sentences, using pictures, objects, and/or manipulatives</i>	5.1 6.3	<i>6-a uses number lines to represent numerals from 0 to 30 in correct order</i>	5.2 6.2	<i>5-b matches equivalent sets up to 50 by counting</i>	5.1
	<i>6-a recognizes the same general pattern of change in mathematical representations</i>	5.2 5.3	<i>6-a solves one-step equations with one unknown, using addition and subtraction</i>	6.3			<i>6-a generalizes patterns of change from everyday life</i>	5.1 6.1
	<i>6-b identifies and continues a simple numerical pattern (e.g., 1,4,7, _ , _)</i>	5.3					<i>6-b describes changes in quantity</i>	5.1 6.1

	5–8 Benchmark 1: Understand patterns, relations, and functions		5–8 Benchmark 2: Represent and analyze mathematical situations and structures using algebraic symbols		5–8 Benchmark 3: Use mathematical models to represent and understand quantitative relationships		5–8 Benchmark 4: Analyze changes in various contexts	
EXTENDED SYMBOLIC	The student	GLPS		GLPS		GLPS		GLPS
	<i>7-a matches numerals and letter variables to generate a pattern (e.g., 1,x,2,y, _ _) upon request</i>	5.2	<i>7-a uses the symbols < for “less than,” > for “greater than,” and = for “equal”</i>	5.3	<i>7-a uses a variety of mathematical models to represent relationships (e.g., number line, manipulatives, pictures)</i>	5.2 6.2	<i>7-a uses graphs or tables to make predictions or solve problems involving change</i>	5.2
	<i>7-b identifies patterns presented in a variety of formats (e.g., numeric, visual, oral, written, kinesthetic, pictorial)</i>		<i>7-b uses a letter to represent an unknown number</i>	5.2 6.2	<i>8-a recognizes the same data can be represented in more than one way</i>	5.3	<i>7-b understands how changes in one variable affect other variables</i>	5.2 6.2
	<i>8-a generalizes repeating patterns</i>	6.5			<i>8-b uses mathematical models to represent relationships, using graphs, tables, charts, and diagrams</i>	5.2 6.2	<i>7-c describes contextual situations in which change in one variable affects another variable</i>	6.2

	5–8 Benchmark 1: Understand patterns, relations, and functions		5–8 Benchmark 2: Represent and analyze mathematical situations and structures using algebraic symbols		5–8 Benchmark 3: Use mathematical models to represent and understand quantitative relationships		5–8 Benchmark 4: Analyze changes in various contexts	
	<i>8-b describes patterns presented in a variety of formats (e.g., numeric, visual, oral, written, kinesthetic, pictorial)</i>	5.3			<i>8-c identifies the missing numerals in a number line, using numerals from 0 to 30</i>	5.2		
	<i>8-c generates complex numerical patterns (e.g., 1,2,4,8,16)</i>	5.4						

Strand: Geometry

Standard III: Students will understand geometric concepts and applications.

	5–8 Benchmark 1: Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships		5–8 Benchmark 2: Specify locations and describe spatial relationships using coordinate geometry and other representational systems		5–8 Benchmark 3: Apply transformations and use symmetry to analyze mathematical situations		5–8 Benchmark 4: Use visualization, spatial reasoning, and geometric modeling to solve problems	
ENGAGEMENT	The student	GLPS		GLPS		GLPS		GLPS
	<i>1-a attends to mathematical stimuli and geometric materials that involve sensory input (e.g., sight, sound, feel) of geometric shapes</i>	5.1 6.1	<i>1-a attends to mathematical stimuli and geometric materials that involve sensory input (e.g., sight, sound, feel) of spatial relationships</i>	5.1 6.1	<i>1-a attends to mathematical stimuli and geometric materials that involve sensory input (e.g., sight, sound, feel) of symmetry</i>	5.1 6.1	<i>1-a attends to mathematical stimuli and geometric materials that involve sensory input (e.g., sight, sound, feel) of spatial relationships</i>	6.1

	5–8 Benchmark 1: Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships		5–8 Benchmark 2: Specify locations and describe spatial relationships using coordinate geometry and other representational systems		5–8 Benchmark 3: Apply transformations and use symmetry to analyze mathematical situations		5–8 Benchmark 4: Use visualization, spatial reasoning, and geometric modeling to solve problems	
	<i>2-a maintains and shifts attention between two or more mathematical activities that involve sensory input (e.g., sight, sound, feel) of geometric shapes</i>	5.1 6.1	<i>2-a maintains and shifts attention between two or more mathematical activities that involve sensory input (e.g., sight, sound, feel) of spatial relationships</i>	5.1 6.1	<i>2-a maintains and shifts attention between two or more mathematical activities that involve sensory input (e.g., sight, sound, feel) of symmetry</i>	5.1 6.1	<i>2-a maintains and shifts attention between two or more mathematical activities that involve sensory input (e.g., sight, sound, feel) of spatial relationships</i>	6.1
	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of geometric shapes</i>	5.1 6.1	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of spatial relationships</i>	5.1 6.1	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of symmetry</i>	5.1 6.1	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of spatial relationships</i>	6.1

	5–8 Benchmark 1: Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships		5–8 Benchmark 2: Specify locations and describe spatial relationships using coordinate geometry and other representational systems		5–8 Benchmark 3: Apply transformations and use symmetry to analyze mathematical situations		5–8 Benchmark 4: Use visualization, spatial reasoning, and geometric modeling to solve problems	
PRE-SYMBOLIC	The student	GLPS		GLPS		GLPS		GLPS
	3-a matches two-dimensional shapes and three-dimensional figures	5.1 6.1	<i>3-a distinguishes between concrete positional objects (e.g., left, right, above, below)</i>	6.1	3-a matches identical three-dimensional figures	5.1	<i>3-a matches identical geometrical shapes and figures</i>	6.1
	4-a sorts two-dimensional geometric shapes and three-dimensional geometric figures by specific attributes	5.1	<i>4-a understands appropriate vocabulary for spatial relationships (e.g., left, right, above, below, up, down)</i>	6.1			<i>4-a manipulates and combines triangles to build more complex shapes (e.g., rectangles, squares)</i>	5.1

	5–8 Benchmark 1: Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships		5–8 Benchmark 2: Specify locations and describe spatial relationships using coordinate geometry and other representational systems		5–8 Benchmark 3: Apply transformations and use symmetry to analyze mathematical situations		5–8 Benchmark 4: Use visualization, spatial reasoning, and geometric modeling to solve problems	
	4-b identifies two-dimensional geometric shapes (e.g., triangles, rectangles, and circles)	5.1	<i>4-b identifies points</i>	5.1				
	<i>4-c matches similar shapes of different size and color</i>	5.1						

	5–8 Benchmark 1: Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships		5–8 Benchmark 2: Specify locations and describe spatial relationships using coordinate geometry and other representational systems		5–8 Benchmark 3: Apply transformations and use symmetry to analyze mathematical situations		5–8 Benchmark 4: Use visualization, spatial reasoning, and geometric modeling to solve problems	
SYMBOLIC	The student	GLPS		GLPS		GLPS		GLPS
	<i>5-a uses appropriate tools to measure shapes and figures (e.g., ruler, tape measure)</i>	6.1	5-a specifies locations and describes spatial relationships (e.g., left, right, up, down)	6.1	<i>5-a recognizes two- or three-dimensional objects as they would appear from nearby and far away</i>	5.1	<i>5-a appropriately labels two-dimensional shapes (e.g., triangles, rectangles, circles)</i>	5.1
	<i>5-b identifies three-dimensional geometric shapes (e.g., cubes, spheres, cylinders)</i>	5.1 6.3	<i>5-b identifies lines</i>	5.1	<i>6-a recognizes symmetrical geometric shapes and figures</i>	5.1	<i>6-a identifies properties (e.g., number of edges, faces, bases) of two- and three-dimensional shapes (e.g., triangles, rectangles, circles, cubes, spheres, cylinders)</i>	5.1

	5–8 Benchmark 1: Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships		5–8 Benchmark 2: Specify locations and describe spatial relationships using coordinate geometry and other representational systems		5–8 Benchmark 3: Apply transformations and use symmetry to analyze mathematical situations		5–8 Benchmark 4: Use visualization, spatial reasoning, and geometric modeling to solve problems	
	<i>6-a identifies faces, edges, and bases on three-dimensional shapes (e.g., cubes, spheres, cylinders)</i>	5.3	<i>6-a follows directions from one location to another using positional vocabulary</i>	6.1			6-b identifies congruent triangles, rectangles, and circles	5.1
	<i>6-b sorts three-dimensional shapes (e.g., cubes, spheres, cylinders) using attributes (e.g., number of edges, faces, bases)</i>	5.3	<i>6-b uses a combination of positional concepts to follow a given direction (e.g., “Put your name in the upper right-hand corner of your paper”)</i>	6.1				
			<i>6-c identifies parallel lines</i>	5.1				

	5–8 Benchmark 1: Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships		5–8 Benchmark 2: Specify locations and describe spatial relationships using coordinate geometry and other representational systems		5–8 Benchmark 3: Apply transformations and use symmetry to analyze mathematical situations		5–8 Benchmark 4: Use visualization, spatial reasoning, and geometric modeling to solve problems	
EXTENDED SYMBOLIC	The student	GLPS		GLPS		GLPS		GLPS
	<i>7-a describes differences between three-dimensional shapes (e.g., cubes, spheres, cylinders)</i>	5.1 5.3 6.1	<i>7-a appropriately labels a coordinate plane (e.g., x-axis, y-axis, and origin)</i>	6.1	<i>7-a identifies lines of symmetry in simple geometric figures</i>	5.1	<i>7-a computes perimeter of two-dimensional shapes (e.g., rectangle, square)</i>	5.1
	<i>8-a describes differences between three-dimensional figures</i>	5.1 5.2	<i>7-b identifies parallel and perpendicular lines</i>	5.1			<i>7-b identifies diameter of a circle</i>	5.2

	5–8 Benchmark 1: Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships		5–8 Benchmark 2: Specify locations and describe spatial relationships using coordinate geometry and other representational systems		5–8 Benchmark 3: Apply transformations and use symmetry to analyze mathematical situations		5–8 Benchmark 4: Use visualization, spatial reasoning, and geometric modeling to solve problems	
			<i>8-a generates coordinate plane, including x-axis, y-axis, and origin</i>	6.1			<i>8-a uses appropriate technology, manipulatives, constructions, or drawings to recognize or compare geometric figures (e.g., cubes, spheres, cylinders)</i>	6.1
			<i>8-b describes differences between parallel and perpendicular lines</i>	5.1				

Strand: Measurement

Standard IV: Students will understand measurement systems and applications.

	5-8 Benchmark 1: Understand measurable attributes of objects and the units, systems, and process of measurement		5-8 Benchmark 2: Apply appropriate techniques, tools, and formulas to determine measurements	
ENGAGEMENT	The student	GLPS		GLPS
	<i>1-a attends to mathematical stimuli and materials that involve sensory input (e.g., sight, sound, feel) of measurable attributes of objects</i>	5.1 6.3	<i>1-a attends to mathematical stimuli and materials that involve sensory input (e.g., sight, sound, feel) of measurement tools</i>	5.1 6.1
	<i>2-a maintains and shifts attention between two or more mathematical objects, activities, or classroom partners that involve sensory input (e.g., sight, sound, feel) of measurable attributes of objects</i>	5.1 6.3	<i>2-a maintains and shifts attention between two or more mathematical activities that involve sensory input (e.g., sight, sound, feel) of measurement tools</i>	5.1 6.1
	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of measurable attributes of objects</i>	5.1 6.3	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of measurement tools</i>	5.1 6.1
PRE-SYMBOLIC	The student	GLPS		GLPS
	<i>3-a matches mathematical objects with identical attributes</i>	5.1	<i>3-a responds to changes in quantity</i>	5.1
			<i>3-b matches like mathematical objects</i>	5.2 6.3
			<i>4-a places objects in order by size or weight</i>	5.1
			<i>4-b identifies which objects are longer, shorter, lighter, or heavier</i>	5.1
SYMBOLIC	The student	GLPS		GLPS
	<i>5-a identifies basic units of measurement (e.g., inch, foot, yard, ounce, pound)</i>	5.1 6.3	<i>5-a identifies which tools to use for specific length and weight measurement applications</i>	5.1 6.4

	5-8 Benchmark 1: Understand measurable attributes of objects and the units, systems, and process of measurement		5-8 Benchmark 2: Apply appropriate techniques, tools, and formulas to determine measurements	
	<i>6-a selects and uses appropriate measurement units and tools to solve problems</i>	5.2	<i>6-a uses appropriate tools to measure length, width, height, and weight</i>	5.1 6.1
EXTENDED SYMBOLIC	The student	GLPS		GLPS
	8-a converts within the same measurement system (e.g., feet to inches)	5.4	8-a tells analog and/or digital time to the quarter hour	5.1
	8-b estimates distance, capacity, and time measurements in U.S. customary units (e.g., inches, feet, yards, cups, minutes, hours)	6.2	<i>8-b uses appropriate tools and processes to measure perimeter and area of rectangles</i>	5.1 6.2
			<i>8-c estimates measurements in U.S. customary units (e.g., inches, feet, yards, cups, minutes, hours)</i>	5.2 6.3

Strand: Data Analysis and Probability

Standard V: Students will understand how to formulate questions, analyze data, and determine probabilities.

	5–8 Benchmark 1: Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them		5–8 Benchmark 2: Select and use appropriate statistical methods to analyze data		5–8 Benchmark 3: Develop and evaluate inferences and predictions that are based on data		5–8 Benchmark 4: Understand and apply basic concepts of probability	
ENGAGEMENT	The student	GLPS		GLPS		GLPS		GLPS
	1-a attends to mathematical stimuli and materials that involve sensory input (e.g., sight, sound, feel) of data collection and display	5.1 6.5	<i>1-a attends to mathematical stimuli and materials that involve sensory input (e.g., sight, sound, feel) of data collection and display</i>	5.1 6.1	<i>1-a attends to mathematical stimuli and materials that involve sensory input (e.g., sight, sound, feel) of data collection and display</i>	5.7 6.2	<i>1-a attends to mathematical stimuli and materials that involve sensory input (e.g., sight, sound, feel) of probability</i>	5.6 6.5

	5–8 Benchmark 1: Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them		5–8 Benchmark 2: Select and use appropriate statistical methods to analyze data		5–8 Benchmark 3: Develop and evaluate inferences and predictions that are based on data		5–8 Benchmark 4: Understand and apply basic concepts of probability	
	<i>2-a maintains and shifts attention between two or more mathematical activities that involve sensory input (e.g., sight, sound, feel) of data collection and display</i>	5.1 6.5	<i>2-a maintains and shifts attention between two or more mathematical activities that involve sensory input (e.g., sight, sound, feel) of data collection and display</i>	5.1 6.1	<i>2-a maintains and shifts attention between two or more mathematical activities that involve sensory input (e.g., sight, sound, feel) of data collection and display</i>	5.7 6.2	<i>2-a maintains and shifts attention between two or more mathematical activities that involve sensory input (e.g., sight, sound, feel) of probability</i>	5.6 6.5
	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of data collection and display</i>	5.1 6.5	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of data collection and display</i>	5.1 6.1	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of data collection and display</i>	5.7 6.2	<i>2-b maintains interactions with others during math activities that involve sensory input (e.g., sight, sound, feel) of probability</i>	5.6 6.5

	5–8 Benchmark 1: Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them		5–8 Benchmark 2: Select and use appropriate statistical methods to analyze data		5–8 Benchmark 3: Develop and evaluate inferences and predictions that are based on data		5–8 Benchmark 4: Understand and apply basic concepts of probability	
PRE-SYMBOLIC	The student	GLPS		GLPS		GLPS		GLPS
	<i>3-a matches identical graphic representations using measurable attributes</i>	5.1 5.2 6.2	<i>3-a matches identical graphic representations of data</i>	5.1 6.1	<i>3-a reacts to changes in the environment that signal predictable events</i>	5.1	<i>3-a anticipates sequential events in a single day</i>	5.1 5.2
	<i>4-a uses visual, auditory, or tactile information to solve a problem</i>	5.2 6.5			<i>4-a recognizes patterns in routine sequences</i>	5.6	<i>3-b follows a schedule of routine events</i>	5.1
							<i>4-a recognizes patterns in routine sequences</i>	5.6

	5–8 Benchmark 1: Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them		5–8 Benchmark 2: Select and use appropriate statistical methods to analyze data		5–8 Benchmark 3: Develop and evaluate inferences and predictions that are based on data		5–8 Benchmark 4: Understand and apply basic concepts of probability	
SYMBOLIC	The student	GLPS		GLPS		GLPS		GLPS
	<i>5-a identifies components of graphical representations (e.g., title, labels, intervals, categories)</i>	5.1 5.2 6.2	<i>6-a identifies credible sources in the information-gathering process</i>	6.7	<i>5-a predicts the next item in a logical sequence</i>	5.1	<i>5-a recognizes whether an outcome is impossible or possible</i>	5.2 5.4 6.3
	5-b formulates questions that can be addressed with data	5.6 6.6			<i>6-a conducts observations, surveys, and simple experiments, and records data</i>	6.2	<i>6-a generates a single event probability experiment (e.g., coin toss)</i>	5.2
	6-a constructs lists, tables, graphs, charts, plots, and diagrams used to display data	5.1 5.4					<i>6-b describes and predicts results of a probability experiment (e.g., heads/tails)</i>	5.4

	5–8 Benchmark 1: Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them		5–8 Benchmark 2: Select and use appropriate statistical methods to analyze data		5–8 Benchmark 3: Develop and evaluate inferences and predictions that are based on data		5–8 Benchmark 4: Understand and apply basic concepts of probability	
EXTENDED SYMBOLIC	The student	GLPS		GLPS		GLPS		GLPS
	<i>7-a compares different graphical representations of the same data</i>	6.2	<i>7-a displays data in a variety of formats (e.g., lists, tables, graphs, charts, plots, diagrams)</i>	5.1	<i>8-a discusses all possible outcomes of simple events</i>	5.8	<i>7-a uses data to estimate the probability of future events</i>	5.6 6.5
	<i>8-a explains information provided in a list, table, graph, chart, plot, or diagram</i>	5.5	<i>8-a calculates the range of a given data set (e.g., 1, 3, 1, 4, 1)</i>	5.3	<i>8-b compares expected results with actual results in a simple experiment</i>	6.4		
	<i>8-b collects data related to a formulated question</i>	5.6 6.1	<i>8-b describes the effects of having missing or incorrect data</i>	6.2				
	<i>8-c identifies the mean, median, and mode of a simple number set (e.g., 1, 3, 1, 4, 1)</i>	6.3						