

COMPONENT	OBJECTIVES	COMPETENCY
I Number Sense, Concepts, and Operations	Counts by ones to 10 or more, using manipulatives, diagrams, and oral language. (MA.A.1.1.1)	A The student understands the different ways numbers are represented and used in the real world.
	2. Reads and writes numerals to 10 or more and number words to 5 or more. (MA.A.1.1.1)	
	3. Counts orally to 100 or more. (MA.A.1.1.1)	
	4. Knows that cardinal numbers indicate quantity and ordinal numbers indicate position. (MA.A.1.1.1)	
	5. Uses numbers and pictures to describe how many objects are in a set (to 10 or more). (MA.A.1.1.2)	
	6. Uses language such as before or after to describe relative position in a sequence of whole numbers on a number line up to 10 or more. (MA.A.1.1.2)	
	7. Compares two or more sets (up to 10 objects in each set), identifies and construct groups that shows a set is equal to, more than, or less than the another set using manipulatives and diagrams. (MA.A.1.1.2)	
	8. Describes orally the position of objects using ordinal numbers through at least "tenth". (MA.A.1.1.2)	
	9. Represents quantities to 10 or more, using concrete materials, drawings and symbols. (MA.A.1.1.3)	
	10. Uses concrete materials to represent fractional parts of a whole (one half, one fourth). (MA.A.1.1.3)	



COMPONENT	OBJECTIVES	COMPETENCY
	 11. Explores one-to-one correspondence and conservation of numbers using manipulatives. (MA.A.1.1.3) 12. Represents equivalent forms of the same number, up to 10 or more, through the use of concrete materials. (MA.A.1.1.4) 	
	13. Counts orally to 100 or more by 1s, 2s, 5s, 10s using a hundred chart or concrete materials. (MA.A.2.1.1)	B The student understands number systems.
	14. Uses concrete materials, pictures of numerals to show the grouping and place value of ten or more. (MA.A.2.1.1)	
	15. Counts forward and backward starting with any number through ten, using a number line, hundreds chart and oral language. (MA.A.2.1.1)	
	16. Groups objects in sets of 2 or more. (MA.A.2.1.2)	
	17. Knows the relationships between larger numbers and smaller numbers. (MA.A.2.1.2)	
	18. Demonstrates and describes the effect of putting together and taking apart sets of objects. (MA.A.3.1.1)	C The student understands the effects of operations on numbers and the relationships among these operations, selects appropriate
	19. Uses a number line to demonstrate how to count up and count back from a given number. (MA.A.3.1.1)	operations, and computes for problem solving.
	20. Combines 2 sets and finds their sum using manipulatives and diagrams. (MA.A.3.1.1)	



COMPONENT	OBJECTIVES	COMPETENCY
	21. Uses a variety of strategies for solving number stories and problems. (MA.A.3.1.2)	
	22. Demonstrates an awareness of addition and subtraction in everyday activities using concrete objects, models, drawings, and role-playing. (MA.A.3.1.3)	
	23. Represents different meanings of subtraction using manipulatives and illustrations. (MA.A.3.1.3)	
	24. Uses estimation-related words to describe and compare sets in terms of quantity; more/less; most/least; some/none; about the same; same/fewer/more; enough/not enough. (MA.A.4.1.1)	D The student uses estimation in problem solving and computation.
	25. Estimates and verifies by counting sets that have more, fewer, or the same number of objects. (MA.A.4.1.1)	
	26. Builds models to show that numbers are odd or even (up to 10). (MA.A.5.1.1)	E The student understands and applies theories related to numbers.
II Measurement	Communicates orally measurement concepts such as length, weight, time, and temperature using oral language. (MA.B.1.1.1)	A The student measures quantities in the real world and uses the measures to solve problems.
	2. Weighs objects to explore concepts of heavier and lighter. (MA.B.1.1.1)	
	3. Given two events in time, determines which one occurs before and which after, and which occurs in the day and which in the night. (MA.B.1.1.1)	



COMPONENT	OBJECTIVES	COMPETENCY
	Describes two substances to determine which is hotter (warmer) or colder (cooler). (MA.B.1.1.1)	
	5. Demonstrates and compares the concept of capacity. (MA.B.1.1.1)	
	6. Uses nonstandard objects, such as cubes, marbles, paper clips, and pencils, to measure classroom objects. (MA.B.1.1.2)	
	7. Uses oral language while comparing two objects to determine which is longer, shorter, heavier, lighter, taller (est), shorter (est), etc. (MA.B.2.1.1)	B The student compares, contrasts, and converts within systems of measurement (both standard/nonstandard and metric/customary).
	8. Uses indirect comparisons to compare lengths of objects that cannot be physically compared (side-by-side). (MA.B.2.1.1)	customary).
	9. Determines which object is nearer (est) or farther (est) using a point of reference. (MA.B.2.1.1)	
	10. Compares and orders classroom objects by their weights, determining which object weighs more, less or about the same. (MA.B.2.1.1)	
	11. Uses uniform nonstandard units to measure common classroom objects. (MA.B.2.1.2)	



COMPONENT	OBJECTIVES	COMPETENCY
	12. Uses nonstandard units to estimate, and verifies by measuring, the length and width of common classroom objects. (MA.B.3.1.1)	C The student estimates measurements in real-world problem situations.
	13. Estimates and measures the time of day as day or night; morning, afternoon, or evening; and yesterday, today, or tomorrow. (MA.B.3.1.1)	
	14. Compares two events to determine which event takes longer (elapsed time). (MA.B.3.1.1)	
	15. Knows and compares the values of a penny (1 cent), nickel (5 cents), and dime (10 cents). (MA.B.3.1.1)	
	16. Tells time to the nearest hour. (MA.B.3.1.1)	
	 17. Uses nonstandard units appropriately. (MA.B.4.1.1) 18. Explores the need for uniform units of measure and the appropriate tools to measure length, weight, and capacity. (MA.B.4.1.2) 	D The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real-world situations.
	19. Knows ways to measure time, including calendar, days(1, 2, 3,), weeks, months, and days of week, (Mon., Tues). (MA.B.4.1.2)	



COMPONENT	OBJECTIVES	COMPETENCY
III Geometry and Spatial Sense	Identifies and draws two-dimensional geometric figures describing similarities and differences. (MA.C.I.I.I) Sorts three-dimensional objects by varied attributes.	A The student describes, draws, identifies, and analyzes two- and three- dimensional shapes.
	 (MA.C.1.1.1) 3. Sorts three-dimensional objects, such as cubes, spheres, cylinders, and cones, according to geometric shapes. (MA.C.1.1.1) 	
	4. Recognizes symmetry in the environment. (MA.C.2.1.1)	B The student visualizes and illustrates ways in which shapes can be combined, subdivided,
	5. Uses concrete materials to make symmetrical figures. (MA.C.2.1.1)	and changed.
	6. Matches objects to outline shapes. (MA.C.2.1.1)	
	7. Knows spatial relationships. (MA.C.2.1.1)	
	8. Identifies left and right hand. (MA.C.2.1.1)	
	9. Follows directions to move or place an object in relation to another. (MA.C.2.1.2)	
	10. Uses concrete objects to explore slides and turns. (MA.C.2.1.2)	



GRADE K

COMPONENT	OBJECTIVES	COMPETENCY
	 11. Recognizes, compares and sorts real-world objects or models of solids. (MA.C.3.1.1) 12. Knows the attributes of circles, squares, triangles, and rectangles. (MA.C.3.1.1) 13. Locates known and unknown numbers on a number line from 0 to 10 or more. (MA.C.3.1.2) 	C The student uses coordinate geometry to locate objects in both two- and three-dimensions and to describe objects algebraically.
IV Algebraic Thinking	 Identifies simple patterns of sounds, physical movements, and concrete objects. (MA.D.1.1.1) Sorts and classifies objects by color, shape, size or kind. (MA.D.1.1.1) Identifies objects that do not belong to a particular group. (MA.D.1.1.1) Predicts and extends existing patterns using concrete materials. (MA.D.1.1.2) Uses concrete objects to create a pattern. (MA.D.1.1.2) Transfers patterns from one medium to another. (MA.D.1.1.2) Recognizes, describes and duplicates patterns. (MA.D.1.1.2) 	A The student describes, analyzes, and generalizes a wide variety of patterns, relations, and functions.

MATHEMATICS - GRADE K



GRADE K

COMPONENT	OBJECTIVES	COMPETENCY
	8. Knows that symbols can be used to represent missing or unknown quantities. (MA.D.2.1.1)	B The student uses expressions, equations, inequalities, graphs, and formulas to represent and interpret situations.
	9. Uses informal methods, such as pictures, concrete materials, and role-playing, to solve real-world problems. (MA.D.2.1.2)	
	10. Uses one-to-one matching to determine if two groups are equal. (MA.D.2.1.2)	
V Data Analysis and Probability	1. Displays answers to simple questions involving two categories or choices using objects familiar to children or pictures on a graph or chart. (MA.E.1.1.1)	A The student understands and uses the tools of data analysis for managing information.
	2. Interprets data exhibited in concrete or pictorial graphs. (MA.E.1.1.1)	
	3. Develops an awareness of the different parts of a graph: title, key, and labels. (MA.E.1.1.1)	
	 Uses concrete materials, pictures, or graphs to show the range, and mode. (MA.E.1.1.2) 	
	5. Makes generalizations from data displayed. (MA.E.1.1.3)	
	6. Describes a situation in terms of its chance of happening. (MA.E.2.1.1)	B The student identifies patterns and makes predictions from an orderly display of data
	7. Participates in activities that involve chance. (MA.E.2.1.1)	using concepts of probability and statistics.

MATHEMATICS - GRADE K



GRADE K

COMPONENT	OBJECTIVES	COMPETENCY
	8. Knows if a given event is more likely, equally likely or less likely to occur. (MA.E.2.1.2)	
	 9. Displays the answer to simple class question with two categories using concrete materials, a pictograph, or chart. (MA.E.3.1.1) 10. Describes data displayed concretely or pictorially. 	C The student uses statistical methods to make inferences and valid arguments about realworld situations.
	(MA.E.3.1.1) 11. Determines through class discussions questions for a simple two-choice survey so that the collected information will answer the questions. (MA.E.3.1.2)	
	12. Knows an appropriate method to display the information. (MA.E.3.1.2)	

MATHEMATICS - GRADE K