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COMPONENT	OBJECTIVES	COMPETENCY
I Number Sense, Concepts, and Operations	1. Reads and writes numerals to 100 or more. **(MA.A.1.1.1)** 2. Reads and writes number words to "twenty" or more. **(MA.A.1.1.1)** 3. Uses ordinal numbers 1st - 10th or more. **(MA.A.1.1.1)** 4. Uses oral, written language, and manipulatives to communicate ordinal position and relative quantity for numbers 100 or more. **(MA.A.1.1.1)** 5. Uses numbers and pictures to describe how many objects are in a set to 100 or more. **(MA.A.1.1.2)** 6. Compares and orders whole numbers to 100 or more using concrete materials, drawings, number lines, and symbols $(<, =, >)$. **(MA.A.1.1.2)** 7. Constructs and compares two or more sets (up to 100 objects in each set) and identifies which set is equal to, more than, or less than the other. **(MA.A.1.1.2)** 8. Represents real-world applications of whole numbers, to 100 or more, using concrete materials, drawings, and symbols. **(MA.A.1.1.3)** 9. Represents and explains fractions (one half, one fourth, three fourths) as part of a whole and part of a set using concrete materials and drawings. **(MA.A.1.1.3)** 10. Uses concrete materials to compare fractions in real-life situations. **(MA.A.1.1.3)**	A. The student understands the different ways numbers are represented and used in the real world.

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COMPONENT	OBJECTIVES	COMPETENCY
	11. Knows that the total of equivalent fractional parts makes a whole (for example, two halves equal one whole). **(MA.A.1.1.3)**	
	12. Represents equivalent forms of the same number, up to 25 or more, through the use of concrete materials (including coins), diagrams, and number expressions. **(MA.A.1.1.4)**	
	13. Counts orally to 100 or more by 2s, 5s, and 10s with or without a hundred chart. **(MA.A.2.1.1)**	B. The student understands number systems.
	14. Uses concrete materials, pictures, and symbols to show the grouping and place value of numbers to 100 or more. **(MA.A.2.1.1)**	
	15. Counts forward and backward by one beginning with any number less than 100. **(MA.A.2.1.1)**	
	16. Counts forward by tens from any number less than 10 using a hundred chart. **(MA.A.2.1.1)**	
	17. Counts and groups 11 or more objects into tens and ones. **(MA.A.2.1.2)**	
	18. Knows place value patterns and uses zero as a placeholder. **(MA.A.2.1.2)**	
	19. Knows the place value of a designated digit in whole numbers to 100. **(MA.A.2.1.2)**	

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COMPONENT	OBJECTIVES	COMPETENCY
	20. Demonstrates knowledge of the meaning of addition (putting together, increasing) and subtraction (taking away, comparing, finding the difference) using manipulatives, drawings, symbols, and story problems. **(MA.A.3.1.1)** 21. Solves basic addition facts using concrete objects and thinking strategies, such as count on, count back, doubles, doubles plus one, and make ten. **(MA.A.3.1.1)** 22. Describes the related facts that represent a given fact family up to 18. **(MA.A.3.1.1)** 23. Uses the associative and commutative properties of addition in solving problems and basic facts. **(MA.A.3.1.1)** 24. Adds and subtracts two-digit numbers without regrouping (sums to 100) using models, concrete materials, or algorithms. **(MA.A.3.1.1)** 25. Poses and solves simple number problems by selecting the proper operation. **(MA.A.3.1.2)** 26. Uses concrete objects to solve number problems with one operation. **(MA.A.3.1.2)** 27. Describes thinking when solving number problems. **(MA.A.3.1.2)** 28. Writes number sentences associated with addition and subtraction situations. **(MA.A.3.1.2)** 29. Knows appropriate methods to solve real-world problems involving addition and subtraction. **(MA.A.3.1.3)**	C. The student understands the effects of operations on numbers and the relationships among these operations, selects appropriate operations, and computes for problem solving.

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	30. Uses a calculator to explore addition, subtraction, and skip counting. **(MA.A.3.1.3)**	
	31. Uses the language of estimation and approximation to identify and describe numbers in real world situations. **(MA.A.4.1.1)**	D. The student uses estimation in problem solving and computation.
	32. Estimates the number of objects, explains the reasoning for the estimate, and checks the reasonableness of the estimate by counting. **(MA.A.4.1.1)**	
	33. Makes reasonable estimates when comparing larger or smaller quantities. **(MA.A.4.1.1)**	
	34. Estimates reasonable answers to basic facts. **(MA.A.4.1.1)**	
	35. Demonstrates and builds models to show the difference between odd and even numbers using concrete objects or drawings. **(MA.A.5.1.1)**	E. The student understands and applies theories related to numbers.
II Measurement	1. Communicates measurement concepts using oral and written language. **(MA.B.1.1.1)**	A. The student measures quantities in the real world and uses the measures to solve problems.
	2. Demonstrates an understanding of measuring: · length (inches and feet) · weight (pounds, grams and kilograms) · time (hour and half hour using analog and digital) · temperature (Fahrenheit and Celsius) **(MA.B.1.1.1)**	
	3. Demonstrates understanding of capacity by selecting appropriate units of measurement. **(MA.B.1.1.1)**	

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COMPONENT	OBJECTIVES	COMPETENCY
	4. Uses oral and written language to describe phenomena associated with seasons. **(MA.B.1.1.1)** 5. Measures length, weight, temperature, or capacity using standard and nonstandard units: inches, centimeters, pounds, kilograms, grams, degrees Celsius, Fahrenheit, cubes, marbles, wooden blocks, etc. **(MA.B.1.1.2)** 6. Uses non-standard and indirect methods to compare and order objects according to their length and weight. **(MA.B.2.1.1)** 7. Uses customary and metric units to measure, compare and order objects according to their length or weight. **(MA.B.2.1.1)** 8. Knows that a uniform unit is needed to measure in real-world situations. **(MA.B.2.1.2)** 9. Estimates, measures and compares length and weight of common object using nonstandard and standard units. **(MA.B.3.1.1)** 10. Estimates and measures passage of time using before or after; yesterday, today, or tomorrow; day or night; morning, afternoon, or evening; hour or half-hour. **(MA.B.3.1.1)** 11. Knows and compares money values, including quarter (25 cents), half-dollars (50 cents), and dollar (100 cents). **(MA.B.3.1.1)** 12. Distinguishes between a week and a day using a calendar. **(MA.B.3.1.1)**	B. The student compares, contrasts, and converts within systems of measurements (both standard/nonstandard & metric/customary). C. The student estimates measurements in real-world problem situations.

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COMPONENT	OBJECTIVES	COMPETENCY
	13. Measures length, weight, time, and capacity using objects in the classroom as units of reference. **(MA.B.4.1.1)** 14. Knows appropriate standard tools for measuring linear dimensions, weight, capacity, and temperature. **(MA.B.4.1.2)** 15. Knows appropriate tools (clocks and calendars) for measuring time (including days, weeks, months). **(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.
III Geometry and Spatial Sense	1. Knows attributes of two- and three-dimensional shapes. **(MA.C.1.1.1)** 2. Sorts two- and three-dimensional figures according to their attributes. **(MA.C.1.1.1)**	A. The student describes, draws, identifies, and analyzes two- and three- dimensional shapes.
	3. Describes lines of symmetry in two-dimensional shapes. **(MA.C.2.1.1)** 4. Identifies shapes that can be combined or separated. **(MA.C.2.1.1)** 5. Uses concrete materials to construct the reflection of a given shape. **(MA.C.2.1.1)** 6. Follows directions to move or place an object and describes the relationship of objects using positional language. **(MA.C.2.1.1)** 7. Uses concrete materials to perform geometric transformations: turn/rotation, slide/translation. **(MA.C.2.1.2)**	B. The student visualizes and illustrates ways in which shapes can be combined, subdivided, and changed.

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	8. Matches and sorts two-dimensional figures with their three-dimensional counterparts and describe their likenesses and differences. **(MA.C.3.1.1)** 9. Identifies two-dimensional and three-dimensional figures (cubes, pyramid, sphere) and associate them with objects in the real world. **(MA.C.3.1.1)** 10. Describes and compares figures using geometric vocabulary: symmetry, open and closed curves, corners, or faces. **(MA.C.3.1.1)** 11. Locates and explains known and unknown numbers on a number line or hundred chart from 0 - 100 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	1. Identifies, describes, and compares patterns using a wide variety of materials and attributes. **(MA.D.1.1.1)** 2. Describes a pattern rule. **(MA.D.1.1.1)** 3. Explores number patterns on a hundred chart. **(MA.D.1.1.1)** 4. Predicts and extends existing patterns that are concrete or pictorial. **(MA.D.1.1.2)** 5. Uses one attribute to create a pattern. **(MA.D.1.1.2)** 6. Transfers patterns from one medium to another. **(MA.D.1.1.2)** 7. Predicts, extends, and creates patterns. **(MA.D.1.1.2)**	A. The student describes, analyzes, and generalizes a wide variety of patterns, relations and functions.

COMPONENT	OBJECTIVES	COMPETENCY
	8. Uses a calculator to explore number patterns. **(MA.D.1.1.2)** 9. Identifies and generates patterns in a list of related number pairs based on real-life situations. **(MA.D.1.1.2)** 10. Solves addition and subtraction sentences where an unknown number is represented by a geometric shape. **(MA.D.2.1.1)** 11. Uses concrete objects to solve number sentences with equalities and inequalities using the symbols $>$, $=$, $<$. **(MA.D.2.1.1)** 12. Uses concrete objects to solve real-world addition and subtraction problems using one unknown. **(MA.D.2.1.2)**	B. The student uses expressions, equations, inequalities, graphs, and formulas to represent and interpret situations.
V Data Analysis and Probability	1. Surveys a small group to answer simple questions involving two categories or choices. **(MA.E.1.1.1)** 2. Organizes and record data in order to construct a pictograph or concrete graphs. **(MA.E.1.1.1)** 3. Uses mathematical language to communicate information, compare data and solve problems on a simple concrete graph, pictorial graph or chart. **(MA.E.1.1.1)** 4. Discusses the different parts of a graph: title, labels, and key. **(MA.E.1.1.1)**	A. The student understands and uses the tools of data analysis for managing information.

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COMPONENT	OBJECTIVES	COMPETENCY
	5. Identifies the range and the mode from data displayed by using concrete materials and pictures. **(MA.E.1.1.2)** 6. Using data from a small group, discusses a reasonable prediction for a large group. **(MA.E.1.1.3)** 7. Compares data using a calculator. **(MA.E.1.1.3)** 8. Knows the likelihood of a given situation. **(MA.E.2.1.1)** 9. Describes a situation in terms of its chance of happening: certain, probable or impossible. **(MA.E.2.1.1)** 10. Discusses results of games and activities dependent upon chance. **(MA.E.2.1.1)** 11. Knows if a given event is more likely, equally likely, or less likely to occur. **(MA.E.2.1.2)** 12. Constructs appropriate questions for a class survey, in a whole group setting. **(MA.E.3.1.1)** 13. Collects data for a survey with two or more categories or choices and creates a class chart or pictograph. **(MA.E.3.1.1)** 14. Analyzes results of a survey as part of a class discussion. **(MA.E.3.1.1)**	B. The student identifies patterns and makes predictions from an orderly display of data using concepts of probability and statistics. C. The student uses statistical methods to make inferences and valid arguments about real-world situations.

COMPONENT	OBJECTIVES	COMPETENCY
	15. Determines questions for a two-category survey so that the collected information will answer the question. **(MA.E.3.1.2)** 16. Knows appropriate methods to display and interpret information. **(MA.E.3.1.2)**	