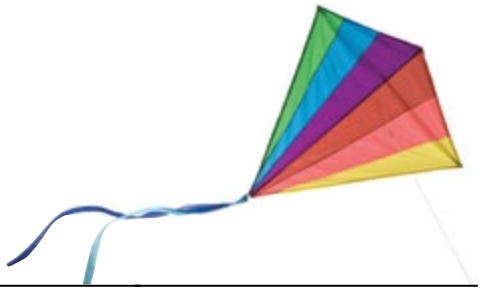
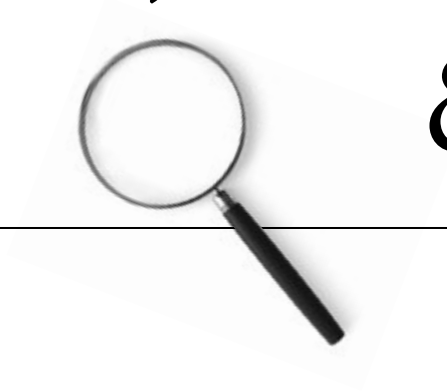
TeachingStrategies®



Alignment of

Objectives for Development & Learning



WITH

Alabama Course of Study for Mathematics: Kindergarten though Grade 3

Teaching Strategies Objectives for Development and Learning (ODL)

aligned to

Alabama Course of Study for Mathematics

Standards adopted 2019

Kindergarten Content Standards

STRAND / DOMAIN		Mathematical Practices
OBJECTIVE / CATEGORY	MP1	Make sense of problems and persevere in solving them. ***GOLD*® Objectives for Development and Learning** • Objective 11 Demonstrates positive approaches to learning c. Solves problems Objective 11c.8 Thinks problems through, considering several possibilities and analyzing results
OBJECTIVE / CATEGORY	MP2	Reason abstractly and quantitatively. ***GOLD*® Objectives for Development and Learning** • Objective 11 Demonstrates positive approaches to learning c. Solves problems Objective 11c.8 Thinks problems through, considering several possibilities and analyzing results
OBJECTIVE / CATEGORY	MP3	Construct viable arguments and critique the reasoning of others. ***GOLD*® Objectives for Development and Learning** • Objective 11 Demonstrates positive approaches to learning c. Solves problems Objective 11c.8 Thinks problems through, considering several possibilities and analyzing results

OBJECTIVE / CATEGORY	MP4	Model with mathematics. ***GOLD*® Objectives for Development and Learning** • Objective 14 Uses symbols and images to represent something not present a. Thinks symbolically Objective 14a.8 Represents objects, places, and ideas with increasingly abstract symbols
OBJECTIVE / CATEGORY	MP5	Use appropriate tools strategically. ***GOLD*® Objectives for Development and Learning** • Objective 14 Uses symbols and images to represent something not present a. Thinks symbolically Objective 14a.8 Represents objects, places, and ideas with increasingly abstract symbols
OBJECTIVE / CATEGORY	MP6	Attend to precision. ***GOLD*® Objectives for Development and Learning** • Objective 11 Demonstrates positive approaches to learning b. Persists Objective 11b.8 Plans and pursues own goal until it is reached
OBJECTIVE / CATEGORY	MP7	Look for and make use of structure. ***GOLD*® Objectives for Development and Learning** • Objective 14 Uses symbols and images to represent something not present a. Thinks symbolically Objective 14a.8 Represents objects, places, and ideas with increasingly abstract symbols
OBJECTIVE / CATEGORY	MP8	Look for and express regularity in repeated reasoning. ***GOLD*® Objectives for Development and Learning** • Objective 11 Demonstrates positive approaches to learning c. Solves problems Objective 11c.8 Thinks problems through, considering several possibilities and analyzing results
STRAND / DOMAIN		Kindergarten Content Standards
OBJECTIVE / CATEGORY		Foundations of Counting
STANDARD		Know number names and the count sequence.
RELATED CONTENT / EXPECTATION	1.	• Count forward orally from 0 to 100 by ones and by tens. Count backward orally from 10 to 0 by ones. ***GOLD*® Objectives for Development and Learning** • Objective 20 Uses number concepts and operations a. Counts Objective 20a.8 Uses number names while counting to 100 by 1s and 10s; counts 30 objects accurately; tells what number comes before and after a specified number up to 20

RELATED CONTENT / EXPECTATION	2.	• Count to 100 by ones beginning with any given number between 0 and 99. ***GOLD*® Objectives for Development and Learning** • Objective 20 Uses number concepts and operations a. Counts Objective 20a.8 Uses number names while counting to 100 by 1s and 10s; counts 30 objects accurately; tells what number comes before and after a specified number up to 20
STRAND / DOMAIN		Kindergarten Content Standards
OBJECTIVE / CATEGORY		Foundations of Counting
STANDARD		Know number names and the count sequence.
RELATED CONTENT / EXPECTATION	3.	Write numerals from 0 to 20.
GRADE EXPECTATION	3.a.	• Represent 0 to 20 using concrete objects when given a written numeral from 0 to 20 (with 0 representing a count of no objects). Gold Objectives for Development and Learning • Objective 20 Uses number concepts and operations c. Connects numerals with their quantities Objective 20c.8 Identifies numerals to 20 by name and connects each to counted objects; represents how many by writing one-digit numerals and some two-digit numerals
STRAND / DOMAIN		Kindergarten Content Standards
OBJECTIVE / CATEGORY		Foundations of Counting
STANDARD		Count to tell the number of objects.
RELATED CONTENT / EXPECTATION	4.	Connect counting to cardinality using a variety of concrete objects.
GRADE EXPECTATION	4	• Say the number names in consecutive order when counting objects. • Indicate that the last number name said tells the number of objects counted in a set. • Indicate that the number of objects in a set is the same regardless of their arrangement or the order in which they were counted. • Explain that each successive number name refers to a quantity that is one larger. ***GOLD*® Objectives for Development and Learning** • Objective 20 Uses number concepts and operations a. Counts Objective 20a.8 Uses number names while counting to 100 by 1s and 10s; counts 30 objects accurately; tells what number comes before and after a specified number up to 20
STRAND / DOMAIN		Kindergarten Content Standards
OBJECTIVE / CATEGORY		Foundations of Counting
STANDARD		Count to tell the number of objects.
RELATED CONTENT / EXPECTATION	5.	Count to answer “how many?” questions.

GRADE EXPECTATION	**5**	**• Count using no more than 20 concrete objects arranged in a line, a rectangular array, or a circle.** **• Count using no more than 10 concrete objects in a scattered configuration.** **• Draw the number of objects that matches a given numeral from 0 to 20.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations a. Counts** **Objective 20a.8 Uses number names while counting to 100 by 1s and 10s; counts 30 objects accurately; tells what number comes before and after a specified number up to 20** **• Objective 20 Uses number concepts and operations b. Quantifies** **Objective 20b.6 Makes sets of 6–10 objects and then describes the parts; identifies which part has more, less, or the same (equal); counts all or counts on to find out how many** **• Objective 20 Uses number concepts and operations c. Connects numerals with their quantities** **Objective 20c.8 Identifies numerals to 20 by name and connects each to counted objects; represents how many by writing one-digit numerals and some two-digit numerals**
STRAND / DOMAIN		**Kindergarten Content Standards**
OBJECTIVE / CATEGORY		**Foundations of Counting**
STANDARD		**Compare numbers.**
RELATED CONTENT / EXPECTATION	**6.**	**• Orally identify whether the number of objects in one group is greater/more than, less/fewer than, or equal/the same as the number of objects in another group, in groups containing up to 10 objects, by using matching, counting, or other strategies.** **Gold Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations b. Quantifies** **Objective 20b.6 Makes sets of 6–10 objects and then describes the parts; identifies which part has more, less, or the same (equal); counts all or counts on to find out how many**
RELATED CONTENT / EXPECTATION	**7.**	**• Compare two numbers between 0 and 10 presented as written numerals (without using inequality symbols).** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations c. Connects numerals with their quantities** **Objective 20c.8 Identifies numerals to 20 by name and connects each to counted objects; represents how many by writing one-digit numerals and some two-digit numerals**
STRAND / DOMAIN		**Kindergarten Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**

RELATED CONTENT / EXPECTATION	**8.**	**• Represent addition and subtraction up to 10 with concrete objects, fingers, pennies, mental images, drawings, claps or other sounds, acting out situations, verbal explanations, expressions, or equations.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.2 Solves addition and subtraction word problems of whole numbers within 10 using a variety of strategies (counting objects or fingers, counting on, counting back); makes number pairs within 10**
RELATED CONTENT / EXPECTATION	**9.**	**• Solve addition and subtraction word problems, and add and subtract within 10, by using concrete objects or drawings to represent the problem.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.2 Solves addition and subtraction word problems of whole numbers within 10 using a variety of strategies (counting objects or fingers, counting on, counting back); makes number pairs within 10**
RELATED CONTENT / EXPECTATION	**10.**	**• Decompose numbers less than or equal to 10 into pairs of smaller numbers in more than one way, by using concrete objects or drawings, and record each decomposition by a drawing or equation.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.2 Solves addition and subtraction word problems of whole numbers within 10 using a variety of strategies (counting objects or fingers, counting on, counting back); makes number pairs within 10**
RELATED CONTENT / EXPECTATION	**11.**	**• For any number from 0 to 10, find the number that makes 10 when added to the given number, by using concrete objects or drawings, and record the answer with a drawing or equation.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.2 Solves addition and subtraction word problems of whole numbers within 10 using a variety of strategies (counting objects or fingers, counting on, counting back); makes number pairs within 10**

RELATED CONTENT / EXPECTATION	12.	• Fluently add and subtract within 5. ***GOLD*® Objectives for Development and Learning** • Objective 20 Uses number concepts and operations f. Applies number combinations and mental number strategies in mathematical operations Objective 20f.2 Adds and subtracts whole numbers fluently within five
STRAND / DOMAIN		Kindergarten Content Standards
OBJECTIVE / CATEGORY		Operations and Algebraic Thinking
STANDARD		Understand simple patterns.
RELATED CONTENT / EXPECTATION	13.	• Duplicate and extend simple patterns using concrete objects. ***GOLD*® Objectives for Development and Learning** • Objective 23 Demonstrates knowledge of patterns Objective 23.6 Extends and creates simple repeating patterns
STRAND / DOMAIN		Kindergarten Content Standards
OBJECTIVE / CATEGORY		Operations with Numbers
STANDARD		Work with numbers 11-19 to gain foundations for place value.
RELATED CONTENT / EXPECTATION	14.	• Compose and decompose numbers from 11 to 19 by using concrete objects or drawings to demonstrate understanding that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten Objective 20d.2 Indicates base-ten equivalents for numbers 11 to 19 using objects and drawings; may use simple equations
STRAND / DOMAIN		Kindergarten Content Standards
OBJECTIVE / CATEGORY		Data Analysis
STANDARD		Collect and analyze data and interpret results.
RELATED CONTENT / EXPECTATION	15.	Classify objects into given categories of 10 or fewer; count the number of objects in each category and sort the categories by count.
GRADE EXPECTATION	15.a.	• Categorize data on Venn diagrams, pictographs, and "yes-no" charts using real objects, symbolic representations, or pictorial representations. ***GOLD*® Objectives for Development and Learning** • Objective 22 Compares and measures c. Represents and analyzes data Objective 22c.4 Creates and reads simple graphs; uses simple comparison and ordinal terms to describe findings
STRAND / DOMAIN		Kindergarten Content Standards
OBJECTIVE / CATEGORY		Measurement

STANDARD		**Describe and compare measurable attributes.**
RELATED CONTENT / EXPECTATION	**16.**	**• Identify and describe measurable attributes (length, weight, height) of a single object using vocabulary such as long/short, heavy/light, or tall/short.** ***GOLD*® Objectives for Development and Learning** **• Objective 22 Compares and measures b. Measures time and money** **Objective 22b.6 Uses some time measurement words and tools**
RELATED CONTENT / EXPECTATION	**17.**	**• Directly compare two objects with a measurable attribute in common to see which object has "more of" or "less of" the attribute and describe the difference.** ***GOLD*® Objectives for Development and Learning** **• Objective 22 Compares and measures b. Measures time and money** **Objective 22b.6 Uses some time measurement words and tools**
STRAND / DOMAIN		**Kindergarten Content Standards**
OBJECTIVE / CATEGORY		**Geometry**
STANDARD		**Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).**
RELATED CONTENT / EXPECTATION	**18.**	**• Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.** ***GOLD*® Objectives for Development and Learning** **• Objective 21 Explores and describes spatial relationships and shapes a. Understands spatial relationships** **Objective 21a.6 Uses and responds appropriately to positional words indicating location, direction, and distance** **• Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes** **Objective 21b.6 Describes basic two- and three-dimensional shapes by using own words; recognizes basic shapes when they are presented in a new orientation**
RELATED CONTENT / EXPECTATION	**19.**	**• Correctly name shapes regardless of their orientations or overall sizes.** ***GOLD*® Objectives for Development and Learning** **• Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes** **Objective 21b.6 Describes basic two- and three-dimensional shapes by using own words; recognizes basic shapes when they are presented in a new orientation**

RELATED CONTENT / EXPECTATION	**20.**	**• Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").** ***GOLD*® Objectives for Development and Learning** **• Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes** **Objective 21b.6 Describes basic two- and three-dimensional shapes by using own words; recognizes basic shapes when they are presented in a new orientation**
STRAND / DOMAIN		**Kindergarten Content Standards**
OBJECTIVE / CATEGORY		**Geometry**
STANDARD		**Analyze, compare, create, and compose shapes.**
RELATED CONTENT / EXPECTATION	**21.**	**• Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (number of sides and vertices or "corners"), and other attributes.** ***GOLD*® Objectives for Development and Learning** **• Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes** **Objective 21b.6 Describes basic two- and three-dimensional shapes by using own words; recognizes basic shapes when they are presented in a new orientation**
RELATED CONTENT / EXPECTATION	**22.**	**• Model shapes in the world by building them from sticks, clay balls, or other components and by drawing them.** ***GOLD*® Objectives for Development and Learning** **• Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes** **Objective 21b.8 Shows that shapes remain the same when they are moved, turned, flipped, or slid; breaks apart or combines shapes to create different shapes and sizes**
RELATED CONTENT / EXPECTATION	**23.**	**• Use simple shapes to compose larger shapes.** ***GOLD*® Objectives for Development and Learning** **• Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes** **Objective 21b.8 Shows that shapes remain the same when they are moved, turned, flipped, or slid; breaks apart or combines shapes to create different shapes and sizes**

Grade 1 Content Standards

STRAND / DOMAIN		Mathematical Practices
OBJECTIVE / CATEGORY	MP1	Make sense of problems and persevere in solving them. ***GOLD*® Objectives for Development and Learning** **• Objective 11 Demonstrates positive approaches to learning c. Solves problems** **Objective 11c.8 Thinks problems through, considering several possibilities and analyzing results**
OBJECTIVE / CATEGORY	MP2	Reason abstractly and quantitatively. ***GOLD*® Objectives for Development and Learning** **• Objective 11 Demonstrates positive approaches to learning c. Solves problems** **Objective 11c.8 Thinks problems through, considering several possibilities and analyzing results**
OBJECTIVE / CATEGORY	MP3	Construct viable arguments and critique the reasoning of others. ***GOLD*® Objectives for Development and Learning** **• Objective 11 Demonstrates positive approaches to learning c. Solves problems** **Objective 11c.8 Thinks problems through, considering several possibilities and analyzing results**
OBJECTIVE / CATEGORY	MP4	Model with mathematics. ***GOLD*® Objectives for Development and Learning** **• Objective 14 Uses symbols and images to represent something not present a. Thinks symbolically** **Objective 14a.8 Represents objects, places, and ideas with increasingly abstract symbols**
OBJECTIVE / CATEGORY	MP5	Use appropriate tools strategically. ***GOLD*® Objectives for Development and Learning** **• Objective 14 Uses symbols and images to represent something not present a. Thinks symbolically** **Objective 14a.8 Represents objects, places, and ideas with increasingly abstract symbols**
OBJECTIVE / CATEGORY	MP6	Attend to precision. ***GOLD*® Objectives for Development and Learning** **• Objective 11 Demonstrates positive approaches to learning b. Persists** **Objective 11b.8 Plans and pursues own goal until it is reached**

OBJECTIVE / CATEGORY	**MP7**	**Look for and make use of structure.** ***GOLD*® Objectives for Development and Learning** **• Objective 14 Uses symbols and images to represent something not present a. Thinks symbolically** **Objective 14a.8 Represents objects, places, and ideas with increasingly abstract symbols**
OBJECTIVE / CATEGORY	**MP8**	**Look for and express regularity in repeated reasoning.** ***GOLD*® Objectives for Development and Learning** **• Objective 11 Demonstrates positive approaches to learning c. Solves problems** **Objective 11c.8 Thinks problems through, considering several possibilities and analyzing results**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Represent and solve problems involving addition and subtraction.**
RELATED CONTENT / EXPECTATION	**1.**	**Use addition and subtraction to solve word problems within 20 by using concrete objects, drawings, and equations with a symbol for the unknown number to represent the problem.**
GRADE EXPECTATION	**1**	**• Add to with change unknown to solve word problems within 20.** **• Take from with change unknown to solve word problems within 20.** **• Put together/take apart with addend unknown to solve word problems within 20.** **• Compare quantities, with difference unknown, bigger unknown, and smaller unknown while solving word problems within 20.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations b. Quantifies** **Objective 20b.8 Solves simple equal share problems; makes sets of 11–20 objects and then describes the parts**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Represent and solve problems involving addition and subtraction.**

RELATED CONTENT / EXPECTATION	**2.**	**• Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20 by using concrete objects, drawings, or equations with a symbol for the unknown number to represent the problem.** **<u>Gold Objectives for Development and Learning</u>** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.4 Solves three-number word problems with answers within 20 using addition properties (associative, commutative, and additive); solves addition and subtraction equations of different types with unknowns in various positions for amounts up to 20**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Understand and apply properties of operations and the relationship between addition and subtraction.**
RELATED CONTENT / EXPECTATION	**3.**	**• Apply properties of operations as strategies to add and subtract.** **<u>Gold Objectives for Development and Learning</u>** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.4 Solves three-number word problems with answers within 20 using addition properties (associative, commutative, and additive); solves addition and subtraction equations of different types with unknowns in various positions for amounts up to 20**
RELATED CONTENT / EXPECTATION	**4.**	**• Explain subtraction as an unknown-addend problem.** ***<u>GOLD</u>*® <u>Objectives for Development and Learning</u>** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.4 Solves three-number word problems with answers within 20 using addition properties (associative, commutative, and additive); solves addition and subtraction equations of different types with unknowns in various positions for amounts up to 20**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Add and subtract within 20.**

RELATED CONTENT / EXPECTATION	5.	• Relate counting to addition and subtraction. Example: counting on 2 to add 2 ***GOLD*® Objectives for Development and Learning** • Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships Objective 20e.4 Solves three-number word problems with answers within 20 using addition properties (associative, commutative, and additive); solves addition and subtraction equations of different types with unknowns in various positions for amounts up to 20
STRAND / DOMAIN		Grade 1 Content Standards
OBJECTIVE / CATEGORY		Operations and Algebraic Thinking
STANDARD		Add and subtract within 20.
RELATED CONTENT / EXPECTATION	6.	Add and subtract within 20.
GRADE EXPECTATION	6	• Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by counting on. • Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by making ten. • Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by decomposing a number leading to a ten. • Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by using the relationship between addition and subtraction. • Demonstrate fluency with addition and subtraction facts with sums or differences to 10 by creating equivalent but easier or known sums. ***GOLD*® Objectives for Development and Learning** • Objective 20 Uses number concepts and operations f. Applies number combinations and mental number strategies in mathematical operations Objective 20f.4 Adds and subtracts whole numbers fluently within 10 using mental strategies (counting on, making ten, decomposing/recomposing, addition/subtraction relationship, and easier equivalent known sums)
STRAND / DOMAIN		Grade 1 Content Standards
OBJECTIVE / CATEGORY		Operations and Algebraic Thinking
STANDARD		Work with addition and subtraction equations.

RELATED CONTENT / EXPECTATION	**7.**	**• Explain that the equal sign means "the same as." Determine whether equations involving addition and subtraction are true or false.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations c. Connects numerals with their quantities** **Objective 20c.10 Represents how many by writing one-, two-, and three-digit numerals to 120; uses relational symbols (<, >, =) to indicate relationships between whole numbers**
RELATED CONTENT / EXPECTATION	**8.**	**• Solve for the unknown whole number in various positions in an addition or subtraction equation, relating three whole numbers that would make it true.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.4 Solves three-number word problems with answers within 20 using addition properties (associative, commutative, and additive); solves addition and subtraction equations of different types with unknowns in various positions for amounts up to 20**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Understand simple patterns.**
RELATED CONTENT / EXPECTATION	**9.**	**• Reproduce, extend, and create patterns and sequences of numbers using a variety of materials.** **Gold Objectives for Development and Learning** **• Objective 23 Demonstrates knowledge of patterns** **Objective 23.8 Recognizes, creates, and explains more complex repeating and simple growing patterns**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Operations with Numbers: Base Ten**
STANDARD		**Extend the counting sequence.**
RELATED CONTENT / EXPECTATION	**10.**	**Extend the number sequence from 0 to 120.**

GRADE EXPECTATION	**10**	**• Count forward and backward by ones, starting at any number less than 120.** **• Read numerals from 0 to 120.** **• Write numerals from 0 to 120.** **• Represent a number of objects from 0 to 120 with a written numeral.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations a. Counts** **Objective 20a.10 Counts to 120 to determine how many; uses skip counting by 2s, 5s, and 10s; begins counting forward at any number between 1 and 120; counts backward from 20**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Operations with Numbers: Base Ten**
STANDARD		**Understand place value.**
RELATED CONTENT / EXPECTATION	**11.**	**Explain that the two digits of a two-digit number represent amounts of tens and ones.**
GRADE EXPECTATION	**11**	**• Identify a bundle of ten ones as a "ten."** **• Identify the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.** **• Identify the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 as one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).** **Gold Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten** **Objective 20d.4 Uses place-value understanding to represent and write two-digit numbers, add one- and two-digit numbers (within 100), and subtract multiples of 10 from multiples of 10 (10–90)**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Operations with Numbers: Base Ten**
STANDARD		**Understand place value.**
RELATED CONTENT / EXPECTATION	**12.**	**• Compare pairs of two-digit numbers based on the values of the tens and ones digits, recording the results of comparisons with the symbols >, =, and < and orally with the words "is greater than," "is equal to," and "is less than."** **Gold Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations c. Connects numerals with their quantities** **Objective 20c.10 Represents how many by writing one-, two-, and three-digit numerals to 120; uses relational symbols (, =) to indicate relationships between whole numbers**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Operations with Numbers: Base Ten**

STANDARD		**Use place value understanding and properties of operations to add and subtract.**
RELATED CONTENT / EXPECTATION	**13.**	**Add within 100, using concrete models or drawings and strategies based on place value.**
GRADE EXPECTATION	**13**	**• Add a two-digit number and a one-digit number.** **• Add a two-digit number and a multiple of 10.** **• Demonstrate that in adding two-digit numbers, tens are added to tens, ones are added to ones, and sometimes it is necessary to compose a ten.** **• Relate the strategy for adding a two-digit number and a one-digit number to a written method and explain the reasoning used.** **Gold Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten** **Objective 20d.4 Uses place-value understanding to represent and write two-digit numbers, add one- and two-digit numbers (within 100), and subtract multiples of 10 from multiples of 10 (10–90)**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Operations with Numbers: Base Ten**
STANDARD		**Use place value understanding and properties of operations to add and subtract.**
RELATED CONTENT / EXPECTATION	**14.**	**• Given a two-digit number, mentally find 10 more or 10 less than the number without having to count, and explain the reasoning used.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten** **Objective 20d.4 Uses place-value understanding to represent and write two-digit numbers, add one- and two-digit numbers (within 100), and subtract multiples of 10 from multiples of 10 (10–90)**
RELATED CONTENT / EXPECTATION	**15.**	**• Subtract multiples of 10 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Relate the strategy to a written method and explain the reasoning used.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten** **Objective 20d.4 Uses place-value understanding to represent and write two-digit numbers, add one- and two-digit numbers (within 100), and subtract multiples of 10 from multiples of 10 (10–90)**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Data Analysis**

STANDARD		**Collect and analyze data and interpret results.**
RELATED CONTENT / EXPECTATION	**16.**	**Organize, represent, and interpret data with up to three categories.**
GRADE EXPECTATION	**16**	**• Ask and answer questions about the total number of data points in organized data. • Summarize data on Venn diagrams, pictographs, and "yes-no" charts using real objects, symbolic representations, or pictorial representations. • Determine "how many" in each category using up to three categories of data. • Determine "how many more" or "how many less" are in one category than in another using data organized into two or three categories. Gold Objectives for Development and Learning • Objective 22 Compares and measures c. Represents and analyzes data Objective 22c.6 Organizes, represents, and analyzes data with up to three categories; uses simple numerical summaries (counts, tallies) and ordinal terms to describe findings**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Measurement**
STANDARD		**Describe and compare measurable attributes.**
RELATED CONTENT / EXPECTATION	**17.**	**• Order three objects by length; compare the lengths of two objects indirectly by using a third object. Gold Objectives for Development and Learning • Objective 22 Compares and measures a. Measures objects Objective 22a.8 Uses measurement words and some standard measurement tools accurately**
RELATED CONTENT / EXPECTATION	**18.**	**• Determine the length of an object using non-standard units with no gaps or overlaps, expressing the length of the object with a whole number. *GOLD*® Objectives for Development and Learning • Objective 22 Compares and measures a. Measures objects Objective 22a.8 Uses measurement words and some standard measurement tools accurately**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Measurement**
STANDARD		**Work with time and money.**
RELATED CONTENT / EXPECTATION	**19.**	**• Tell and write time to the hours and half hours using analog and digital clocks. Gold Objectives for Development and Learning • Objective 22 Compares and measures b. Measures time and money Objective 22b.8 Tells and writes time in hours and half-hours using both analog and digital clocks; makes amounts using pennies (P), nickels (N), and dimes (D)**

RELATED CONTENT / EXPECTATION	**20.**	**• Identify pennies and dimes by name and value.** **<u>Gold Objectives for Development and Learning</u>** **• Objective 22 Compares and measures b. Measures time and money** **Objective 22b.8 Tells and writes time in hours and half-hours using both analog and digital clocks; makes amounts using pennies (P), nickels (N), and dimes (D)**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Geometry**
STANDARD		**Reason with shapes and their attributes.**
RELATED CONTENT / EXPECTATION	**21.**	**Build and draw shapes which have defining attributes.**
GRADE EXPECTATION	**21.a.**	**• Distinguish between defining attributes and non-defining attributes.** **<u>Gold Objectives for Development and Learning</u>** **• Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes** **Objective 21b.10 Distinguishes essential attributes of triangles, rectangles, squares, trapezoids, half circles, and quarter circles; visualizes and creates known shapes**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Geometry**
STANDARD		**Reason with shapes and their attributes.**
RELATED CONTENT / EXPECTATION	**22.**	**• Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.** ***<u>GOLD</u>*<u>® Objectives for Development and Learning</u>** **• Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes** **Objective 21b.10 Distinguishes essential attributes of triangles, rectangles, squares, trapezoids, half circles, and quarter circles; visualizes and creates known shapes**
STRAND / DOMAIN		**Grade 1 Content Standards**
OBJECTIVE / CATEGORY		**Geometry**
STANDARD		**Reason with shapes and their attributes.**
RELATED CONTENT / EXPECTATION	**23.**	**Partition circles and rectangles into two and four equal shares and describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of.**

GRADE EXPECTATION	**23**	**• Describe "the whole" as two of or four of the shares of circles and rectangles partitioned into two or four equal shares.** **• Explain that decomposing into more equal shares creates smaller shares of circles and rectangles.** ***GOLD*® Objectives for Development and Learning** **• Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes** **Objective 21b.10 Distinguishes essential attributes of triangles, rectangles, squares, trapezoids, half circles, and quarter circles; visualizes and creates known shapes**

Grade 2 Content Standards

STRAND / DOMAIN		Mathematical Practices
OBJECTIVE / CATEGORY	MP1	Make sense of problems and persevere in solving them. ***GOLD*® Objectives for Development and Learning** • Objective 11 Demonstrates positive approaches to learning c. Solves problems Objective 11c.10 Solves a wide range of problems using a variety of strategies; attempts to solve problems independently before asking for assistance from adults or peers
OBJECTIVE / CATEGORY	MP2	Reason abstractly and quantitatively. ***GOLD*® Objectives for Development and Learning** • Objective 11 Demonstrates positive approaches to learning c. Solves problems Objective 11c.10 Solves a wide range of problems using a variety of strategies; attempts to solve problems independently before asking for assistance from adults or peers
OBJECTIVE / CATEGORY	MP3	Construct viable arguments and critique the reasoning of others. ***GOLD*® Objectives for Development and Learning** • Objective 11 Demonstrates positive approaches to learning c. Solves problems Objective 11c.10 Solves a wide range of problems using a variety of strategies; attempts to solve problems independently before asking for assistance from adults or peers
OBJECTIVE / CATEGORY	MP4	Model with mathematics. ***GOLD*® Objectives for Development and Learning** • Objective 14 Uses symbols and images to represent something not present a. Thinks symbolically Objective 14a.10 Shows increasing ability to interpret and record ideas and thoughts
OBJECTIVE / CATEGORY	MP5	Use appropriate tools strategically. ***GOLD*® Objectives for Development and Learning** • Objective 14 Uses symbols and images to represent something not present a. Thinks symbolically Objective 14a.10 Shows increasing ability to interpret and record ideas and thoughts
OBJECTIVE / CATEGORY	MP6	Attend to precision. ***GOLD*® Objectives for Development and Learning** • Objective 11 Demonstrates positive approaches to learning b. Persists Objective 11b.10 Plans and completes grade-appropriate tasks and projects with minimal adult assistance

OBJECTIVE / CATEGORY	**MP7**	**Look for and make use of structure.** ***GOLD*® Objectives for Development and Learning** **• Objective 14 Uses symbols and images to represent something not present a. Thinks symbolically** **Objective 14a.10 Shows increasing ability to interpret and record ideas and thoughts**
OBJECTIVE / CATEGORY	**MP8**	**Look for and express regularity in repeated reasoning.** ***GOLD*® Objectives for Development and Learning** **• Objective 11 Demonstrates positive approaches to learning c. Solves problems** **Objective 11c.10 Solves a wide range of problems using a variety of strategies; attempts to solve problems independently before asking for assistance from adults or peers**
STRAND / DOMAIN		**Grade 2 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Represent and solve problems involving addition and subtraction.**
RELATED CONTENT / EXPECTATION	**1.**	**• Use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.** **Gold Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.6 Solves one- and two-step word problems of various types using addition and subtraction (within 100) and explains strategies; uses repeated addition to find the number of objects presented in rectangular arrays (up to five rows and five columns)**
STRAND / DOMAIN		**Grade 2 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Add and subtract within 20.**
RELATED CONTENT / EXPECTATION	**2.**	**Fluently add and subtract within 20 using mental strategies such as counting on, making ten, decomposing a number leading to ten, using the relationship between addition and subtraction, and creating equivalent but easier or known sums.**
GRADE EXPECTATION	**2.a.**	**• State automatically all sums of two one-digit numbers.** **Gold Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations f. Applies number combinations and mental number strategies in mathematical operations** **Objective 20f.6 Adds and subtracts whole numbers fluently within 20 using previously learned mental strategies; knows all the addition combinations of two, one-digit numbers from memory**
STRAND / DOMAIN		**Grade 2 Content Standards**

OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Work with equal groups of objects to gain foundations for multiplication.**
RELATED CONTENT / EXPECTATION	**3.**	**Use concrete objects to determine whether a group of up to 20 objects is even or odd.**
GRADE EXPECTATION	**3.a.**	**• Write an equation to express an even number as a sum of two equal addends.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations b. Quantifies** **Objective 20b.12 Answers how much questions about wholes partitioned into equal shares of two (halves), four (fourths), and three (thirds); verbally labels each part and describes its relationship to the whole**
STRAND / DOMAIN		**Grade 2 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Work with equal groups of objects to gain foundations for multiplication.**
RELATED CONTENT / EXPECTATION	**4.**	**Using concrete and pictorial representations and repeated addition, determine the total number of objects in a rectangular array with up to 5 rows and up to 5 columns.**
GRADE EXPECTATION	**4.a.**	**• Write an equation to express the total number of objects in a rectangular array with up to 5 rows and up to 5 columns as a sum of equal addends.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.6 Solves one- and two-step word problems of various types using addition and subtraction (within 100) and explains strategies; uses repeated addition to find the number of objects presented in rectangular arrays (up to five rows and five columns)**
STRAND / DOMAIN		**Grade 2 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Understand simple patterns.**
RELATED CONTENT / EXPECTATION	**5.**	**• Reproduce, extend, create, and describe patterns and sequences using a variety of materials.** **Gold Objectives for Development and Learning** **• Objective 23 Demonstrates knowledge of patterns** **Objective 23.8 Recognizes, creates, and explains more complex repeating and simple growing patterns**
STRAND / DOMAIN		**Grade 2 Content Standards**
OBJECTIVE / CATEGORY		**Operations with Numbers: Base Ten**
STANDARD		**Understand place value.**

RELATED CONTENT / EXPECTATION	**6.**	**Explain that the three digits of a three-digit number represent amounts of hundreds, tens, and ones.**
GRADE EXPECTATION	**6.a.**	**• Explain the following three-digit numbers as special cases: 100 can be thought of as a bundle of ten tens, called a "hundred," and the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).** **Gold Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten** **Objective 20d.6 Uses place-value understanding to represent and write three-digit numbers (including expanded form); adds up to four two-digit numbers; adds and subtracts three-digit numbers (within 1,000)**
STRAND / DOMAIN		**Grade 2 Content Standards**
OBJECTIVE / CATEGORY		**Operations with Numbers: Base Ten**
STANDARD		**Understand place value.**
RELATED CONTENT / EXPECTATION	**7.**	**• Count within 1000 by ones, fives, tens, and hundreds.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten** **Objective 20d.6 Uses place-value understanding to represent and write three-digit numbers (including expanded form); adds up to four two-digit numbers; adds and subtracts three-digit numbers (within 1,000)**
RELATED CONTENT / EXPECTATION	**8.**	**• Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten** **Objective 20d.6 Uses place-value understanding to represent and write three-digit numbers (including expanded form); adds up to four two-digit numbers; adds and subtracts three-digit numbers (within 1,000)**

RELATED CONTENT / EXPECTATION	9.	• Compare two three-digit numbers based on the value of the hundreds, tens, and ones digits, recording the results of comparisons with the symbols >, =, and < and orally with the words “is greater than,” “is equal to,” and “is less than.” ***GOLD*® Objectives for Development and Learning** • Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten Objective 20d.6 Uses place-value understanding to represent and write three-digit numbers (including expanded form); adds up to four two-digit numbers; adds and subtracts three-digit numbers (within 1,000)
STRAND / DOMAIN		Grade 2 Content Standards
OBJECTIVE / CATEGORY		Operations with Numbers: Base Ten
STANDARD		Use place value understanding and properties of operations to add and subtract.
RELATED CONTENT / EXPECTATION	10.	• Fluently add and subtract within 100, using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. ***GOLD*® Objectives for Development and Learning** • Objective 20 Uses number concepts and operations f. Applies number combinations and mental number strategies in mathematical operations Objective 20f.6 Adds and subtracts whole numbers fluently within 20 using previously learned mental strategies; knows all the addition combinations of two, one-digit numbers from memory
RELATED CONTENT / EXPECTATION	11.	• Use a variety of strategies to add up to four two-digit numbers. ***GOLD*® Objectives for Development and Learning** • Objective 20 Uses number concepts and operations f. Applies number combinations and mental number strategies in mathematical operations Objective 20f.6 Adds and subtracts whole numbers fluently within 20 using previously learned mental strategies; knows all the addition combinations of two, one-digit numbers from memory
STRAND / DOMAIN		Grade 2 Content Standards
OBJECTIVE / CATEGORY		Operations with Numbers: Base Ten
STANDARD		Use place value understanding and properties of operations to add and subtract.
RELATED CONTENT / EXPECTATION	12.	Add and subtract within 1000 using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method.

GRADE EXPECTATION	**12.a.**	**• Explain that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten** **Objective 20d.6 Uses place-value understanding to represent and write three-digit numbers (including expanded form); adds up to four two-digit numbers; adds and subtracts three-digit numbers (within 1,000)**
STRAND / DOMAIN		**Grade 2 Content Standards**
OBJECTIVE / CATEGORY		**Operations with Numbers: Base Ten**
STANDARD		**Use place value understanding and properties of operations to add and subtract.**
RELATED CONTENT / EXPECTATION	**13.**	**• Mentally add and subtract 10 or 100 to a given number between 100 and 900.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten** **Objective 20d.6 Uses place-value understanding to represent and write three-digit numbers (including expanded form); adds up to four two-digit numbers; adds and subtracts three-digit numbers (within 1,000)**
RELATED CONTENT / EXPECTATION	**14.**	**• Explain why addition and subtraction strategies work, using place value and the properties of operations.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten** **Objective 20d.6 Uses place-value understanding to represent and write three-digit numbers (including expanded form); adds up to four two-digit numbers; adds and subtracts three-digit numbers (within 1,000)**
STRAND / DOMAIN		**Grade 2 Content Standards**
OBJECTIVE / CATEGORY		**Data Analysis**
STANDARD		**Collect and analyze data and interpret results.**
RELATED CONTENT / EXPECTATION	**15.**	**Measure lengths of several objects to the nearest whole unit.**

GRADE EXPECTATION	**15.a.**	**• Create a line plot where the horizontal scale is marked off in whole-number units to show the lengths of several measured objects.** ***GOLD*® Objectives for Development and Learning** **• Objective 22 Compares and measures c. Represents and analyzes data** **Objective 22c.8 Reads and creates scaled picture or bar graphs where each picture/bar represents more than one data point; uses the graph to ask and answer questions**
STRAND / DOMAIN		**Grade 2 Content Standards**
OBJECTIVE / CATEGORY		**Data Analysis**
STANDARD		**Collect and analyze data and interpret results.**
RELATED CONTENT / EXPECTATION	**16.**	**Create a picture graph and bar graph to represent data with up to four categories.**
GRADE EXPECTATION	**16**	**• Using information presented in a bar graph, solve simple "put-together," "take-apart," and "compare" problems.** **• Using Venn diagrams, pictographs, and "yes-no" charts, analyze data to predict an outcome.** ***GOLD*® Objectives for Development and Learning** **• Objective 22 Compares and measures c. Represents and analyzes data** **Objective 22c.8 Reads and creates scaled picture or bar graphs where each picture/bar represents more than one data point; uses the graph to ask and answer questions**
STRAND / DOMAIN		**Grade 2 Content Standards**
OBJECTIVE / CATEGORY		**Measurement**
STANDARD		**Measure and estimate lengths in standard units.**
RELATED CONTENT / EXPECTATION	**17.**	**• Measure the length of an object by selecting and using standard units of measurement shown on rulers, yardsticks, meter sticks, or measuring tapes.** **Gold Objectives for Development and Learning** **• Objective 22 Compares and measures a. Measures objects** **Objective 22a.10 Measures length accurately and expresses the measurement in whole numbers**
RELATED CONTENT / EXPECTATION	**18.**	**• Measure objects with two different units, and describe how the two measurements relate to each other and the size of the unit chosen.** ***GOLD*® Objectives for Development and Learning** **• Objective 22 Compares and measures a. Measures objects** **Objective 22a.12 Measures and compares the length of two objects using standard length units**

RELATED CONTENT / EXPECTATION	19.	• Estimate lengths using the following standard units of measurement: inches, feet, centimeters, and meters. ***GOLD*® Objectives for Development and Learning** • Objective 22 Compares and measures a. Measures objects Objective 22a.12 Measures and compares the length of two objects using standard length units
RELATED CONTENT / EXPECTATION	20.	• Measure to determine how much longer one object is than another, expressing the length difference of the two objects using standard units of length. **® Objectives for Development and Learning** • Objective 22 Compares and measures a. Measures objects Objective 22a.12 Measures and compares the length of two objects using standard length units
STRAND / DOMAIN		Grade 2 Content Standards
OBJECTIVE / CATEGORY		Measurement
STANDARD		Relate addition and subtraction to length.
RELATED CONTENT / EXPECTATION	21.	• Use addition and subtraction within 100 to solve word problems involving same units of length, representing the problem with drawings (such as drawings of rulers) and/or equations with a symbol for the unknown number. Gold Objectives for Development and Learning • Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships Objective 20e.6 Solves one- and two-step word problems of various types using addition and subtraction (within 100) and explains strategies; uses repeated addition to find the number of objects presented in rectangular arrays (up to five rows and five columns)
RELATED CONTENT / EXPECTATION	22.	• Create a number line diagram using whole numbers and use it to represent whole-number sums and differences within 100. ***GOLD*® Objectives for Development and Learning** • Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships Objective 20e.6 Solves one- and two-step word problems of various types using addition and subtraction (within 100) and explains strategies; uses repeated addition to find the number of objects presented in rectangular arrays (up to five rows and five columns)
STRAND / DOMAIN		Grade 2 Content Standards
OBJECTIVE / CATEGORY		Measurement
STANDARD		Work with time and money.
RELATED CONTENT / EXPECTATION	23.	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

GRADE EXPECTATION	23.a.	• Express an understanding of common terms such as, but not limited to, quarter past, half past, and quarter to. ***GOLD*® Objectives for Development and Learning** • Objective 22 Compares and measures b. Measures time and money Objective 22b.10 Tells and writes time to the nearest five minutes; indicates a.m. and p.m.; solves word problems involving coins (P, N, D, Q) and dollar bills, and expresses the answer using currency symbols
STRAND / DOMAIN		Grade 2 Content Standards
OBJECTIVE / CATEGORY		Measurement
STANDARD		Work with time and money.
RELATED CONTENT / EXPECTATION	24.	Solve problems with money.
GRADE EXPECTATION	24	• Identify nickels and quarters by name and value. • Find the value of a collection of quarters, dimes, nickels, and pennies. • Solve word problems by adding and subtracting within one dollar, using the $ and ¢ symbols appropriately (not including decimal notation). ***GOLD*® Objectives for Development and Learning** • Objective 22 Compares and measures b. Measures time and money Objective 22b.10 Tells and writes time to the nearest five minutes; indicates a.m. and p.m.; solves word problems involving coins (P, N, D, Q) and dollar bills, and expresses the answer using currency symbols
STRAND / DOMAIN		Grade 2 Content Standards
OBJECTIVE / CATEGORY		Geometry
STANDARD		Reason with shapes and their attributes.
RELATED CONTENT / EXPECTATION	25.	Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
GRADE EXPECTATION	25.a.	• Recognize and draw shapes having specified attributes. ***GOLD*® Objectives for Development and Learning** • Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes Objective 21b.12 Uses essential attributes to label and create quadrilaterals, pentagons, hexagons, and cubes; visualizes and predicts the results of combining and taking apart two-dimensional and three-dimensional shapes
STRAND / DOMAIN		Grade 2 Content Standards
OBJECTIVE / CATEGORY		Geometry
STANDARD		Reason with shapes and their attributes.

RELATED CONTENT / EXPECTATION	**26.**	**• Partition a rectangle into rows and columns of same-size squares, and count to find the total number of squares.** ***GOLD*® Objectives for Development and Learning** **• Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes** **Objective 21b.12 Uses essential attributes to label and create quadrilaterals, pentagons, hexagons, and cubes; visualizes and predicts the results of combining and taking apart two-dimensional and three-dimensional shapes**
STRAND / DOMAIN		**Grade 2 Content Standards**
OBJECTIVE / CATEGORY		**Geometry**
STANDARD		**Reason with shapes and their attributes.**
RELATED CONTENT / EXPECTATION	**27.**	**Partition circles and rectangles into two, three, or four equal shares. Describe the shares using such terms as halves, thirds, half of, or a third of, and describe the whole as two halves, three thirds, or four fourths.**
GRADE EXPECTATION	**27.a.**	**• Explain that equal shares of identical wholes need not have the same shape.** ***GOLD*® Objectives for Development and Learning** **• Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes** **Objective 21b.12 Uses essential attributes to label and create quadrilaterals, pentagons, hexagons, and cubes; visualizes and predicts the results of combining and taking apart two-dimensional and three-dimensional shapes**

Grade 3 Content Standards

STRAND / DOMAIN		Mathematical Practices
OBJECTIVE / CATEGORY	MP1	Make sense of problems and persevere in solving them. ***GOLD*® Objectives for Development and Learning** **• Objective 11 Demonstrates positive approaches to learning c. Solves problems** **Objective 11c.12 Plans, considers various alternatives, and combines skills and strategies needed to solve problems**
OBJECTIVE / CATEGORY	MP2	Reason abstractly and quantitatively. ***GOLD*® Objectives for Development and Learning** **• Objective 11 Demonstrates positive approaches to learning c. Solves problems** **Objective 11c.12 Plans, considers various alternatives, and combines skills and strategies needed to solve problems**
OBJECTIVE / CATEGORY	MP3	Construct viable arguments and critique the reasoning of others. ***GOLD*® Objectives for Development and Learning** **• Objective 11 Demonstrates positive approaches to learning c. Solves problems** **Objective 11c.12 Plans, considers various alternatives, and combines skills and strategies needed to solve problems**
OBJECTIVE / CATEGORY	MP4	Model with mathematics. ***GOLD*® Objectives for Development and Learning** **• Objective 14 Uses symbols and images to represent something not present a. Thinks symbolically** **Objective 14a.12 Mentally manipulates information and uses logical arguments with increasing regularity; needs concrete points of reference for complex concepts and text; reflects on her work**
OBJECTIVE / CATEGORY	MP5	Use appropriate tools strategically. ***GOLD*® Objectives for Development and Learning** **• Objective 14 Uses symbols and images to represent something not present a. Thinks symbolically** **Objective 14a.12 Mentally manipulates information and uses logical arguments with increasing regularity; needs concrete points of reference for complex concepts and text; reflects on her work**

OBJECTIVE / CATEGORY	**MP6**	**Attend to precision.** ***GOLD*® Objectives for Development and Learning** **• Objective 11 Demonstrates positive approaches to learning b. Persists** **Objective 11b.12 Finishes long assignments and projects that last for days or weeks; may briefly give up on difficult tasks but returns to complete them**
OBJECTIVE / CATEGORY	**MP7**	**Look for and make use of structure.** ***GOLD*® Objectives for Development and Learning** **• Objective 14 Uses symbols and images to represent something not present a. Thinks symbolically** **Objective 14a.12 Mentally manipulates information and uses logical arguments with increasing regularity; needs concrete points of reference for complex concepts and text; reflects on her work**
OBJECTIVE / CATEGORY	**MP8**	**Look for and express regularity in repeated reasoning.** ***GOLD*® Objectives for Development and Learning** **• Objective 11 Demonstrates positive approaches to learning c. Solves problems** **Objective 11c.12 Plans, considers various alternatives, and combines skills and strategies needed to solve problems**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Represent and solve problems involving multiplication and division.**
RELATED CONTENT / EXPECTATION	**1.**	**• Illustrate the product of two whole numbers as equal groups by identifying the number of groups and the number in each group and represent as a written expression.** **Gold Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.8 Solves, represents, and explains two-step word problems of various types (equal-sized groups, arrays, measurement quantities) using properties of whole number operations and multiplication/division inverse relationships; uses estimation strategies (mental number line, rounding) to determine if answers are reasonable**
RELATED CONTENT / EXPECTATION	**2.**	**• Illustrate and interpret the quotient of two whole numbers as the number of objects in each group or the number of groups when the whole is partitioned into equal shares.** **Gold Objectives for Development and Learning** **Objective 20e.8 Solves, represents, and explains two-step word problems of various types (equal-sized groups, arrays, measurement quantities) using properties of whole number operations and multiplication/division inverse relationships; uses estimation strategies (mental number line, rounding) to determine if answers are reasonable**

RELATED CONTENT / EXPECTATION	**3.**	**• Solve word situations using multiplication and division within 100 involving equal groups, arrays, and measurement quantities; represent the situation using models, drawings, and equations with a symbol for the unknown number.** **<u>Gold Objectives for Development and Learning</u>** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.8 Solves, represents, and explains two-step word problems of various types (equal-sized groups, arrays, measurement quantities) using properties of whole number operations and multiplication/division inverse relationships; uses estimation strategies (mental number line, rounding) to determine if answers are reasonable**
RELATED CONTENT / EXPECTATION	**4.**	**• Determine the unknown whole number in a multiplication or division equation relating three whole numbers.** ***<u>GOLD</u>*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.8 Solves, represents, and explains two-step word problems of various types (equal-sized groups, arrays, measurement quantities) using properties of whole number operations and multiplication/division inverse relationships; uses estimation strategies (mental number line, rounding) to determine if answers are reasonable**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Understand properties of multiplication and the relationship between multiplication and division.**
RELATED CONTENT / EXPECTATION	**5.**	**• Develop and apply properties of operations as strategies to multiply and divide.** **<u>Gold Objectives for Development and Learning</u>** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.8 Solves, represents, and explains two-step word problems of various types (equal-sized groups, arrays, measurement quantities) using properties of whole number operations and multiplication/division inverse relationships; uses estimation strategies (mental number line, rounding) to determine if answers are reasonable**

RELATED CONTENT / EXPECTATION	**6.**	**• Use the relationship between multiplication and division to represent division as an equation with an unknown factor.** **<u>Gold Objectives for Development and Learning</u>** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.8 Solves, represents, and explains two-step word problems of various types (equal-sized groups, arrays, measurement quantities) using properties of whole number operations and multiplication/division inverse relationships; uses estimation strategies (mental number line, rounding) to determine if answers are reasonable**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Multiply and divide within 100.**
RELATED CONTENT / EXPECTATION	**7.**	**Use strategies based on properties and patterns of multiplication to demonstrate fluency with multiplication and division within 100.**
GRADE EXPECTATION	**7**	**• Fluently determine all products obtained by multiplying two one-digit numbers.** **• State automatically all products of two one-digit numbers by the end of third grade.** ***<u>GOLD</u>*<u>® Objectives for Development and Learning</u>** **• Objective 20 Uses number concepts and operations f. Applies number combinations and mental number strategies in mathematical operations** **Objective 20f.8 Adds and subtracts whole numbers fluently within 1,000; multiplies and divides whole numbers fluently within 100 using previously learned mental strategies, the relationships between addition/subtraction and multiplication/division, and algorithms based on place value; identifies the products of all one-digit numbers from memory**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Operations and Algebraic Thinking**
STANDARD		**Solve problems involving the four operations and identify and explain patterns in arithmetic.**
RELATED CONTENT / EXPECTATION	**8.**	**• Determine and justify solutions for two-step word problems using the four operations and write an equation with a letter standing for the unknown quantity. Determine reasonableness of answers using number sense, context, mental computation, and estimation strategies including rounding.** **<u>Gold Objectives for Development and Learning</u>** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.8 Solves, represents, and explains two-step word problems of various types (equal-sized groups, arrays, measurement quantities) using properties of whole number operations and multiplication/division inverse relationships; uses estimation strategies (mental number line, rounding) to determine if answers are reasonable**

RELATED CONTENT / EXPECTATION	**9.**	**• Recognize and explain arithmetic patterns using properties of operations.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.8 Solves, represents, and explains two-step word problems of various types (equal-sized groups, arrays, measurement quantities) using properties of whole number operations and multiplication/division inverse relationships; uses estimation strategies (mental number line, rounding) to determine if answers are reasonable**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Operations with Numbers: Base Ten**
STANDARD		**Use place value understanding and properties of operations to perform multi-digit arithmetic.**
RELATED CONTENT / EXPECTATION	**10.**	**• Identify the nearest 10 or 100 when rounding whole numbers, using place value understanding.** **Gold Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations d. Understands and uses place value and base ten** **Objective 20d.8 Uses place-value understanding to represent and write four-digit numbers; multiplies one-digit whole numbers by 10s (10–90); rounds three-digit whole numbers to the nearest ten or hundred**
RELATED CONTENT / EXPECTATION	**11.**	**• Use various strategies to add and subtract fluently within 1000.** **Gold Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations f. Applies number combinations and mental number strategies in mathematical operations** **Objective 20f.8 Adds and subtracts whole numbers fluently within 1,000; multiplies and divides whole numbers fluently within 100 using previously learned mental strategies, the relationships between addition/subtraction and multiplication/division, and algorithms based on place value; identifies the products of all one-digit numbers from memory**
RELATED CONTENT / EXPECTATION	**12.**	**• Use concrete materials and pictorial models based on place value and properties of operations to find the product of a one-digit whole number by a multiple of ten (from 10 to 90).** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations e. Applies properties of mathematical operations and relationships** **Objective 20e.8 Solves, represents, and explains two-step word problems of various types (equal-sized groups, arrays, measurement quantities) using properties of whole number operations and multiplication/division inverse relationships; uses estimation strategies (mental number line, rounding) to determine if answers are reasonable**

STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Operations with Numbers: Fractions**
STANDARD		**Develop understanding of fractions as numbers.**
RELATED CONTENT / EXPECTATION	**13.**	**• Demonstrate that a unit fraction represents one part of an area model or length model of a whole that has been equally partitioned; explain that a numerator greater than one indicates the number of unit pieces represented by the fraction.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations b. Quantifies** **Objective 20b.14 Compares fractions and explains them using physical models, pictorial representations, and number lines**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Operations with Numbers: Fractions**
STANDARD		**Develop understanding of fractions as numbers.**
RELATED CONTENT / EXPECTATION	**14.**	**Interpret a fraction as a number on the number line; locate or represent fractions on a number line diagram.**
GRADE EXPECTATION	**14**	**• Represent a unit fraction (1/b) on a number line by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts as specified by the denominator.** **• Represent a fraction (a/b) on a number line by marking off a lengths of size (1/b) from zero.** **Gold Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations b. Quantifies** **Objective 20b.14 Compares fractions and explains them using physical models, pictorial representations, and number lines**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Operations with Numbers: Fractions**
STANDARD		**Develop understanding of fractions as numbers.**
RELATED CONTENT / EXPECTATION	**15.**	**Explain equivalence and compare fractions by reasoning about their size using visual fraction models and number lines.**

GRADE EXPECTATION	**15**	**• Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers.** **• Compare two fractions with the same numerator or with the same denominator by reasoning about their size (recognizing that fractions must refer to the same whole for the comparison to be valid). Record comparisons using < , >, or = and justify conclusions.** ***GOLD*® Objectives for Development and Learning** **• Objective 20 Uses number concepts and operations b. Quantifies** **Objective 20b.14 Compares fractions and explains them using physical models, pictorial representations, and number lines**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Data Analysis**
STANDARD		**Represent and interpret data.**
RELATED CONTENT / EXPECTATION	**16.**	**For a given or collected set of data, create a scaled (one-to-many) picture graph and scaled bar graph to represent a data set with several categories.**
GRADE EXPECTATION	**16**	**• Determine a simple probability from a context that includes a picture.** **• Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled graphs.** **Gold Objectives for Development and Learning** **• Objective 22 Compares and measures c. Represents and analyzes data** **Objective 22c.10 Reads and creates scaled picture or bar graphs where each picture/bar represents more than one data point; uses the graph to ask and answer questions**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Data Analysis**
STANDARD		**Represent and interpret data.**
RELATED CONTENT / EXPECTATION	**17.**	**• Measure lengths using rulers marked with halves and fourths of an inch to generate data and create a line plot marked off in appropriate units to display the data.** ***GOLD*® Objectives for Development and Learning** **• Objective 22 Compares and measures a. Measures objects** **Objective 22a.14 Solves one-step word problems related to measurement of liquid volume, mass, area, and perimeter**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Measurement**
STANDARD		**Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.**
RELATED CONTENT / EXPECTATION	**18.**	**Tell and write time to the nearest minute; measure time intervals in minutes (within 90 minutes.)**

GRADE EXPECTATION	**18.a.**	**• Solve real-world problems involving addition and subtraction of time intervals in minutes by representing the problem on a number line diagram.** ***GOLD*® Objectives for Development and Learning** **• Objective 22 Compares and measures b. Measures time and money** **Objective 22b.12 Solves one-step word problems related to time to the nearest minute**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Measurement**
STANDARD		**Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.**
RELATED CONTENT / EXPECTATION	**19.**	**Estimate and measure liquid volumes and masses of objects using liters (l), grams (g), and kilograms (kg).**
GRADE EXPECTATION	**19.a.**	**• Use the four operations to solve one-step word problems involving masses or volumes given in the same metric units.** **Gold Objectives for Development and Learning** **• Objective 22 Compares and measures a. Measures objects** **Objective 22a.14 Solves one-step word problems related to measurement of liquid volume, mass, area, and perimeter**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Measurement**
STANDARD		**Geometric measurement: understand concepts of area and relate area to multiplication and to addition.**
RELATED CONTENT / EXPECTATION	**20.**	**• Find the area of a rectangle with whole number side lengths by tiling without gaps or overlays and counting unit squares.** ***GOLD*® Objectives for Development and Learning** **• Objective 22 Compares and measures a. Measures objects** **Objective 22a.14 Solves one-step word problems related to measurement of liquid volume, mass, area, and perimeter**
RELATED CONTENT / EXPECTATION	**21.**	**• Count unit squares (square cm, square m, square in, square ft, and improvised or non-standard units) to determine area.** ***GOLD*® Objectives for Development and Learning** **• Objective 22 Compares and measures a. Measures objects** **Objective 22a.14 Solves one-step word problems related to measurement of liquid volume, mass, area, and perimeter**

RELATED CONTENT / EXPECTATION	**22.**	**• Relate area to the operations of multiplication using real-world problems, concrete materials, mathematical reasoning, and the distributive property.** ***GOLD*® Objectives for Development and Learning** **• Objective 22 Compares and measures a. Measures objects** **Objective 22a.14 Solves one-step word problems related to measurement of liquid volume, mass, area, and perimeter**
RELATED CONTENT / EXPECTATION	**23.**	**• Decompose rectilinear figures into smaller rectangles to find the area, using concrete materials.** ***GOLD*® Objectives for Development and Learning** **• Objective 22 Compares and measures a. Measures objects** **Objective 22a.14 Solves one-step word problems related to measurement of liquid volume, mass, area, and perimeter**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Measurement**
STANDARD		**Geometric measurement: Recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.**
RELATED CONTENT / EXPECTATION	**24.**	**• Construct rectangles with the same perimeter and different areas or the same area and different perimeters.** ***GOLD*® Objectives for Development and Learning** **• Objective 22 Compares and measures a. Measures objects** **Objective 22a.14 Solves one-step word problems related to measurement of liquid volume, mass, area, and perimeter**
RELATED CONTENT / EXPECTATION	**25.**	**• Solve real-world problems involving perimeters of polygons, including finding the perimeter given the side lengths and finding an unknown side length of rectangles.** **Gold Objectives for Development and Learning** **• Objective 22 Compares and measures a. Measures objects** **Objective 22a.14 Solves one-step word problems related to measurement of liquid volume, mass, area, and perimeter**
STRAND / DOMAIN		**Grade 3 Content Standards**
OBJECTIVE / CATEGORY		**Geometry**
STANDARD		**Reason with shapes and their attributes.**
RELATED CONTENT / EXPECTATION	**26.**	**Recognize and describe polygons (up to 8 sides), triangles, and quadrilaterals (rhombuses, rectangles, and squares) based on the number of sides and the presence or absence of square corners.**

GRADE EXPECTATION	**26.a.**	**• Draw examples of quadrilaterals that are and are not rhombuses, rectangles, and squares.** **Gold Objectives for Development and Learning** **• Objective 21 Explores and describes spatial relationships and shapes b. Understands shapes** **Objective 21b.12 Uses essential attributes to label and create quadrilaterals, pentagons, hexagons, and cubes; visualizes and predicts the results of combining and taking apart two-dimensional and three-dimensional shapes**