KINDERGARTEN MATHEMATICS CURRICULUM

Course 50010

Kindergarten students will be learning the names of numbers and counting. They will explore quantities, the idea of putting together and taking apart. We will also explore and learn basics about some two and three dimensional shapes including making comparisons between different shapes. The foundations of measurement will be another topic with students engaging in concepts of length, area, weight, and time. Money concepts are also introduced in kindergarten. Students will also use a variety of tools such as number lines, counting blocks and other objects to help solidify their understanding of mathematical concepts.

KINDERGARTEN MATHEMATICS OUTLINE:

Goals	Skills	Summative Assessments	Time Frame	Main Resources
- Know number names and write and recite the count sequence. - Identify and describe two- and three-dimensional shapes. - Describe and compare attributes of length, area, weight, and capacity of everyday objects. - Classify objects and count the number of objects in each category. - Analyze, compare, create, and compose two- and three-dimensional shapes.	- Apply one-to-one correspondence to count the number of objects. - Apply the concept of magnitude to compare numbers and quantities. - Use place value to compose and decompose numbers within 19. - Extend the concepts of putting together and taking apart to add and subtract within 10.	Mid-year and End of Year Benchmark Assessments	1-year	Everyday Math 4th ed.

KINDERGARTEN MATHEMATICS MAP:

TIME FRAME	BIG IDEAS	CONCEPTS	ESSENTIAL QUESTIONS	STANDARDS	OBJECTIVES	DIFFERENTIATION	ASSESSMENT
Unit 1 (Weeks 1-4)	• Mathematical relationships among numbers can be represented, compared, and communicated. • Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations. • Patterns exhibit relationships that can be extended, described, and generalized. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Measurement attributes can be quantified, and estimated using customary and non-customary units of measure. • Mathematical relations and functions can be modeled through multiple representations and analyzed to raise answer questions. • Data can be	1. Measurement: ordering with direct and indirect comparison. 2. Patterns: Describing simple number, sequential, and growing. 3. Base-10 System Whole Numbers. 4. Base-10 System Whole Numbers. 5. Base-10 System Whole Numbers. 6. Data Analysis: By sort and resort by attributes. 7. Measurement: Ordering with direct and indirect comparison. 8. Data Analysis: By sort and resort by attributes. 9. Patterns: Describing simple number, sequential, and growing. 10. Patterns: Describing simple number, sequential, and growing. 11. Data Analysis; By sort and resort by attributes. 12. Base-10 System Whole Numbers. 13. Measurement: Ordering with direct and indirect comparison. 14. Base-10 System Whole Numbers. 15. Shapes and Solids: Describing and combining. 16. Base-10 System	• When we have more than 2 objects, how do we figure out which one is longest? Shortest? • How do we identify a pattern? • What happens when we take a group of numbers or objects apart or put them together? • How do we know which number is larger or smaller? • How do we know which number is larger or smaller? • How do we sort this group of objects? • What do we look at when you try to identify a shape? • How do we sort this group of objects? • Can you extend the pattern using sounds and motions? • How can we make this pattern grow? • How do we sort this group of objects? • How do we know which number is larger or smaller? • When we have more than two objects, how do we figure out which is longest and shortest?	CC.2.1.K.A.1 Know number names and write and recite the count sequence. CC.2.1.K.A.2 Apply one-to-one correspondence to count the number of objects. CC.2.3.K.A.1 Identify and describe two- and three-dimensional shapes. CC.2.4.K.A.1 Describe and compare attributes of length, area, weight, and capacity of everyday objects.	• Compare and contrast paper lengths. • Classify 5 different pattern blocks. • Connect the multisensory counts to numbers. • Connect the concept of zero, the word zero, and the numeral "0". • Investigate the numbers 1-9 in a variety of activities. • Compare attributes within the sorting realm. • Make observation about volume through sand and water play. • Construct and interpret a graph using birthday information. • Compare and construct patterns through multisensory, experiential activities. • Create a simple color patterns. • Organize and sort coins. • Develop a logical argument using counting skills through an oral counting game. • Compare lengths. • Identify numerals 1-10.	1.1 Comparing hand and foot sizes; Comparing block structures 1.2 Reading books about patterns and quilts; Discussing a story about patterns 1.3 Playing Simon Says 1.4 Counting down with snacks; Reading a counting story; Counting down from higher numbers 1.5 Reading counting books 1.6 Singing about attributes; Reading about attributes; Sorting nature collections 1.7 Estimating container capacity 1.8 Reading birthday stories; Representing Earth's revolution 1.9 Reading books with patterns, Singing a patterned song 1.10 Creating patterns with natural objects 1.11 Using coins in a Feely Box or Feely Bag; Playing with money and banks 1.12 Counting on using number cards; Counting in computer games 1.13 Discussing the terms long and short; Reading a	Comparing lengths of two objects. Counting up to 10 objects. Recognizing numbers 1-10. Baseline Periodic Assessment Test 1. Count on by 1s 2. Count back by 1s 3. Count objects 4. Read numbers 5. compare and order numbers 6. compare sizes of objects 7. recognize two-dimensional geometric shapes 8. identify shapes having line symmetry 9. extend a pattern 10. use a rule to sort objects

	modeled and used to make inferences. • Patterns exhibit relationships that can be extended, described, and generalized. • Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization. • Mathematical relationships among numbers can be represented, compared, and communicated. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Patterns exhibit relationships that can be extended, described, and generalized.	Whole Numbers.	• How do we know which number is larger or smaller? • What do we look at when you try to identify a shape? • What happens when I take a group of numbers (objects) apart or put them together?			book and comparing heights 1.14 Counting beans; Using Ten Frames	
Unit 2 (Weeks 5-8)	• Mathematical relationships among numbers can be represented, compared, and communicated. • Mathematical relationships can be represented as expressions, equations, and inequalities in	1. Shape Collages 2. Shapes by Feel 3. Which Way Do I Go? 4. Spin a Number Game 5. Patterns All Around 6. Playful Oral Counting Games 7. Preparation for Number Writing 8. Matching Coin	• How are spatial relationships, including shapes and dimension used to draw, construct, model, and represent real situations to solve problems? • How can the application of the attributes of geometric shapes	CC.2.1.K.A.1 Know number names and write and recite the count sequence. CC.2.1.K.B.1 Use place value to compose and decompose numbers within 19. CC.2.2.K.A.1 Extend concepts of	• Differentiate between circles, triangles, squares, and rectangles. • Develop understanding of shapes using the sense of touch. • Summarize spatial vocabulary and concepts. • Investigate counting and	2.1 Reading about shapes; Looking for shapes in nature 2.2 Printing or gluing shapes; Nibbling Shapes 2.3 Reading direction stories; Singing directional songs 2.4 Counting on a life-size game mat; Playing Spin a	Identifying and naming a triangle and a circle. Counting up to 10 objects. Reading numbers 1-10. Identifying symmetrical objects.

mathematical situations. • Patterns exhibit relationships that can be extended, described, and generalized. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Measurement attributes can be quantified, and estimated using customary and non-customary units of measure. • Mathematical relations and functions can be modeled through multiple representations and analyzed to raise answer questions. • Data can be modeled and used to make inferences. • Patterns exhibit relationships that can be extended, described, and generalized. • Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization. • Mathematical relationships	Game 9. Number Board 10. Tricky Teens 11. Listen and Do (10-19) 12. Teen Partners 13. Estimation Jars 14. Number Stories: Stage 1 15. Symmetry Painting 16. Symmetry in Nature	support mathematical reasoning and problem solving? • How can data be organized and represented to provide insight into the relationships between quantities? • How is mathematics used to quantify, compare, represent, and model numbers? • How can patterns be used to describe relationships in mathematical situations? • How is mathematics used to quantify, compare, represent, and model numbers? • How is mathematics used to quantify, compare, represent, and model numbers? • How is mathematics used to quantify, compare, represent, and model numbers? • How is mathematics used to quantify, compare, represent, and model numbers? • How is mathematics used to quantify, compare,	putting together and taking apart to add and subtract within 10. CC.2.3.K.A.1 Identify and describe two- and three-dimensional shapes. CC.2.3.K.A.2 Analyze, compare, create, and compose two- and three-dimensional shapes.	reading numbers 1-10 using a game. • Analyze recognition of patterns through a pattern search activity. • Develop oral counting skills through movement activities. • Distinguish number writing through kinesthetic and tactile stroke-formation activities. • Compare coins using a game. • Connect the meaning of numbers by constructing a class number board. • Introduce and practice with counting and recognizing teen numbers. • Reinforce oral counting and recognizing teen numbers through a movement activity. • Construct the concept that teen numbers represent "10 and some more". • Formulate the concept of estimation. • Introduce addition and subtraction number stories. • Construct the concept of symmetry. • Develop understanding of symmetry by	Number on the computer 2.5 Going on a pattern hunt; Building with patterns 2.6 Singing counting songs; Reading counting books 2.7 Making sandpaper number rubbings; Preparing cookie or modeling dough 2.8 Sorting coins; Making coin rubbings 2.9 Counting with concrete materials; Reading Bat Jamboree 2.10 Playing Teen Tangle; Playing oral counting games with teens 2.11 Sequencing teen cards in the Math Center; Constructing teen buildings 2.12 Creating paper chains; Representing tens and ones 2.13 Comparing sizes to estimate; Making handful estimates 2.14 Modeling number stories; Drawing and writing number stories 2.15 Making fold-and-cut symmetrical shapes; Creating symmetrical faces 2.16 Finding symmetrical objects in books; Sorting natural objects	Baseline Periodic Assessment Test 1. Count on by 1s 2. Count back by 1s 3. Count objects 4. Read numbers 5. compare and order numbers 6. compare sizes of objects 7. recognize two-dimensional geometric shapes 8. identify shapes having line symmetry 9. extend a pattern 10. use a rule to sort objects

	among numbers can be represented, compared, and communicated. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Patterns exhibit relationships that can be extended, described, and generalized.		represent, and model numbers? • How is mathematics used to quantify, compare, represent, and model numbers? • How is mathematics used to quantify, compare, represent, and model numbers? • What does it mean to estimate or analyze numerical quantities? • Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations. • How are relationships represented mathematically? • How are relationships represented mathematically?		looking for symmetry in natural objects.		
Unit 3 (Weeks 9-12)	• Mathematical relationships among numbers can be represented, compared, and communicated. • Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations. • Patterns exhibit relationships that	1. Number Books 2. Macaroni Necklaces 3. Roll and Record 4. The Pan Balance 5. Domino Concentration Game 6. Monster Squeeze Game 7. Measurement with Objects 8. Pocket Problems 9. Number Card Games 10. Probability Stories 11. Probability Tray	• How is mathematics used to quantify, compare, represent, and model numbers? • How can patterns be used to describe relationships in mathematical situations? • How is mathematics used to quantify, compare, represent, and	CC.2.1.K.A.1 Know number names and write and recite the count sequence. CC.2.1.K.A.2 Apply one-to-one correspondence to count the number of objects. CC.2.1.K.B.1 Use place value to compose and decompose numbers within 19.	• Practice writing and representing numbers. • Practice creating and describing patterns through an art project. • Construct a graph by reviewing counting and number recognition. • Distinguish that a pan balance is a tool used to compare weights of objects.	3.1 Writing on backs; Writing on slates 3.2 Making pattern prints; Creating pattern strips 3.3 Varying Roll and Record; Playing Dice Race 3.4 Understanding heavier and lighter; Comparing weights of natural objects; Predicting and testing weights of objects 3.5 Matching	Drawing correct quantities of items to represent numbers. Creating, describing, and extended patterns. Counting 1-12 objects. Recognizing numbers. Counting numbers 11-20.

can be extended, described, and generalized. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Measurement attributes can be quantified, and estimated using customary and non-customary units of measure. • Mathematical relations and functions can be modeled through multiple representations and analyzed to raise answer questions. • Data can be modeled and used to make inferences. • Patterns exhibit relationships that can be extended, described, and generalized. • Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization. • Mathematical relationships among numbers can be represented, compared, and	12. Pan Balance 2: Leveling 13. Train Games 14. Favorite Colors Graph 15. Count by 10s 16. Teen Frame Game	model numbers? • What makes a tool and/or strategy appropriate for a given task? • How is mathematics used to quantify, compare, represent, and model numbers? • What makes a tool and/or strategy appropriate for a given task? • Why does "what" we measure influence "how" we measure? • How is mathematics used to quantify, compare, represent, and model numbers? • How is mathematics used to quantify, compare, represent, and model numbers? • How can probability and data analysis be used to make predictions? • How can probability and data analysis be used to make predictions? • What makes a tool and/or strategy appropriate for a given task? • How is mathematics used to quantify, compare, represent, and model numbers?	CC.2.2.K.A.1 Extend concepts of putting together and taking apart to add and subtract within 10. CC.2.4.K.A.1 Describe and compare attributes of length, area, weight, and capacity of everyday objects. CC.2.4.K.A.4 Classify objects and count the number of objects in each category.	• Match numbers of dots to written numbers by playing a game. • Distinguish number relationships and number recognition through playing a game. • Use measuring techniques by using nonstandard measuring devices. • The student will gain understanding of addition and subtraction using concrete experiences. • The student will count and sequence numbers 0-20 through game play. • The student will interpret basic probability language. • Develop understanding of probability through select activities. • Use the pan balance to weigh and balance objects. • Practice counting and concrete addition and subtraction through game play. • Construct and analyze a bar graph. • The student will skip count by 10's. • Practice teen numbers through game play.	dominoes and number cards; Playing dominoes 3.6 Making symmetrical monsters; Playing Monster Squeeze (Mini Version) 3.7 Reading about measurement; Measuring blue whales with body measures; Measuring with different units 3.8 Playing with pockets and counters; Playing addition and subtraction computer games 3.9 Playing with number cards; Tracing numbers 3.10 Understanding certain and impossible; Using probability vocabulary; Creating class probability collages 3.11 Playing Stick Pick-Up 3.12 Reading a book about weight; Weighing objects with nonstandard units 3.13 Making a train of children; Counting passengers on a train 3.14 Graphing hat colors; Learning color names in different languages 3.15 Reading a book about counting by 10s; Counting to rhythms and music 3.16 Using a 10 die	Comparing numbers 11-20.

Unit	Big Ideas	Content	Essential Questions	Standards	Objectives	Activities	Assessment
	communicated. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Patterns exhibit relationships that can be extended, described, and generalized.		• How can data be organized and represented to provide insight into the relationship between quantities? • How is mathematics used to quantify, compare, represent, and model numbers? • How is mathematics used to quantify, compare, represent, and model numbers?				
Unit 4 (Weeks 13-16)	• Mathematical relationships among numbers can be represented, compared, and communicated. • Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations. • Patterns exhibit relationships that can be extended, described, and generalized. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Measurement attributes can be quantified, and	1. Number Line Mathematics 2. Top-It Card Games 3. The Pattern-Block Template 4. The Addition Symbol (+) 5. Follow My Pattern 6. Interrupted Counts 7. Meet the Calculator 8. Roll and Record with Two Dice 9. Body and Rope Shapes 10. Shape Comparisons 11. The Subtraction Symbols (-) 12. Slate Activities 13. Introduction to Attribute Blocks 14. "What's My Rule?" Fishing Game 15. Number Stories, Stage 2 16. Two-Digit Numbers	• What makes a tool and/or strategy appropriate for a given task? • How is mathematics used to quantify, compare, represent, and model numbers? • How can patterns be used to describe relationships in mathematical situations? • How can recognizing repetition or regularity assist in solving problems more efficiently? • How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problems?	CC.2.1.K.A.1 Know number names and write and recite the count sequence. CC.2.2.K.A.1 Extend concepts of putting together and taking apart to add and subtract within 10. CC.2.3.K.A.1 Identify and describe two- and three-dimensional shapes. CC.2.3.K.A.2 Analyze, compare, create, and compose two- and three-dimensional shapes. CC.2.4.K.A.4 Classify objects and count the number of objects in each category.	• Develop addition and subtraction strategies using a walk-on number line. • Make number comparisons through game play. • Identify and use pattern block template. • Use the addition symbol using counters constructing number stories. • Create, extend, and describe patterns. • Practice interrupted counting. • Practice using the calculator by reading and entering numbers. • Construct a graph using probability and addition. • Deepen understanding of shapes through	4.1 Playing number line games; Playing Hopscotch 4.2 Playing Addition Top-It; Playing number card games 4.3 Creating Pattern-Block Template creatures 4.4 Reading "The Gingerbread Boy"; Playing the Growing Train Game 4.5 Playing Pattern Cover Up 4.6 Saying an interrupted alphabet; Playing oral counting games 4.7 Practicing 2-digit number recognition; Investigating the solar cell; Playing with calculators 4.8 Drawing a 10-part bug 4.9 Reviewing basic shapes; Creating shape outlines 4.10 Reading Grandfather Tang's Story; Using	Compare numbers 0-20. Creating, extending, and describing patterns. Counting by 1's to 30. Counting backward. Recognizing and naming basic shapes. Sorting according to color, shape, and size. Mid-Year periodic Assessment 1. Count on by 1s. 2. Count back by 1s. 3. Count on by 5s and 10s. 4. Count objects. 5. Estimate the number of objects in the collection. 6. Model numbers

estimated using customary and non-customary units of measure. • Mathematical relations and functions can be modeled through multiple representations and analyzed to raise answer questions. • Data can be modeled and used to make inferences. • Patterns exhibit relationships that can be extended, described, and generalized. • Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization. • Mathematical relationships among numbers can be represented, compared, and communicated. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Patterns exhibit relationships that can be extended, described, and generalized.					cooperative movement activity. • Compare and contrast 2-D shapes. • Practice using the subtraction symbol using counters and number stories. • Show number writing using slate boards or paper. • Classify attribute blocks. • Investigate objects using sorting rule(s). • Use addition and subtraction symbols to create number stories. • Read and represent 2-digit numbers.	geoboards and tangrams 4.11 Solving subtraction pocket problems; Playing the Disappearing Train Game 4.12 Learning number-writing songs and thymes; Practicing with spinners and dice; Playing with slates 4.13 Reading 3 Little Firefighters; Playing Simon Says 4.14 Playing Who Am I Thinking Of?; Playing "What's My Rule?" Fishing with attribute blocks 4.15 Acting out number stories; Playing the Growing and Disappearing Train Game 4.16 Building numbers with 10s and 1s; Playing Bingo; Reading calculator numbers	with manipulatives. 7. Read and write (or dictate) two digit numbers. 8. Compare and order numbers. 9. Solve number stories. Identify, join, and take away situations. 10. Describe events using basic probability terms. 11. Use non-standard tools and techniques to estimate and compare weight and length. 12. Identify plane (2-dimensional) figures. 13. Identify shapes having line symmetry. 14. Extend, describe, and create patterns. 15. Use a rule to sort objects.

| Unit 5 (Weeks 17-20) | • Mathematical relationships among numbers can be represented, compared, and communicated.
• Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations.
• Patterns exhibit relationships that can be extended, described, and generalized.
• Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools.
• Measurement attributes can be quantified, and estimated using customary and non-customary units of measure.
• Mathematical relations and functions can be modeled through multiple representations and analyzed to raise answer questions.
• Data can be modeled and used to make inferences.
• Patterns exhibit relationships that | 1. Order of Daily Events
2. Patterns with Craft Sticks
3. Find The Block Game
4. Guess My Number Game
5. Count with calculators
6. Measurement with Children's Feet
7. How Big Is a Foot?
8. Count by 5s
9. Introduction of Tally Marks
10. The Raft Game
11. Standard and Nonstandard Feet
12. Tools for Measuring Length
13. Pet Bar Graph
14. Attribute Spinner Game
15. Introduction to the Number Grid
16. Number-Grid Search Game | • How is mathematics used to quantify, compare, represent, and model numbers?
• What makes a tool and/or strategy appropriate for a given task?
• Why does "what" we measure influence "how" we measure?
• How can mathematics support effective communication? | CC.2.1.K.A.1 Know number names and write and recite the count sequence.

CC.2.1.K.A.3 Apply the concept of magnitude to compare numbers and quantities.

CC.2.3.K.A.2 Analyze, compare, create, and compose two- and three-dimensional shapes.

CC.2.4.K.A.1 Describe and compare attributes of length, area, weight, and capacity of everyday objects.

CC.2.4.K.A.4 Classify objects and count the number of objects in each category. | • Sequence daily events
• Create, extend, and describe visual patterns
• Distinguish multiple attributes to identify and describe objects
• Develop awareness of equivalent names for numbers through game play
• Count forward and backward using a calculator
• Measure objects using feet
• Develop understanding of standard measurement units through activities
• Skip count by 5's
• Count and record groups of 5 using tally marks
• Count by 5's through game play
• Construct need for using standard units of measurement
• Distinguish different measuring tools
• Construct and interpret bar graph
• Distinguish multiple attributes of attribute blocks
• Illustrate number grid
• Use number grid to develop understanding of number sequence and patterns | 5.1 Comparing schedules; Making life timelines
5.2 Finding patterns in a book; Making toothpick patterns; Working with patterns on the computer
5.3 Reading I Spy books; Playing I Spy
5.4 Creating a number tree; Playing a missing number game
5.5 Reading about a "Quack-U-Lator"
5.6 Measuring with paces; Measuring block buildings
5.7 Reading about animal feet; Comparing feet
5.8 Reading about counting by 5s; Making a handprint display; Listening and counting with nickels
5.9 Telling the "Sleepy Snake" story; Counting with tally cards
5.10 Playing a beans and planks game; Playing Penny-Nickel Exchange
5.11 Reading Inch by Inch; Measuring outside
5.12 Reading Building a House; Measuring long chains
5.13 Researching pets; Writing pet stories
5.14 Describing blocks with multiple attributes; Making attribute trains | Sequencing and describing time periods of the day.

Reading and writing 2-digit numbers.

Making responsible estimates.

Answering questions based on a graph.

Mid-Year periodic Assessment

1. Count on by 1s.
2. Count back by 1s.
3. Count on by 5s and 10s.
4. Count objects.
5. Estimate the number of objects in the collection.
6. Model numbers with manipulatives.
7. Read and write (or dictate) two digit numbers.
8. Compare and order numbers.
9. Solve number stories. Identify, join, and take away situations.
10. Describe events using basic probability terms.
11. Use non-standard tools and techniques to estimate and compare weight and length.
12. Identify plane (2-dimensional) figures.
13. Identify shapes having line symmetry.
14. Extend, describe, and create patterns. |

	can be extended, described, and generalized. • Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization. • Mathematical relationships among numbers can be represented, compared, and communicated. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Patterns exhibit relationships that can be extended, described, and generalized.					5.15 Reading How the Stars Fell into the Sky; Using write on/wipe off number grids 5.16 Playing the Number-Grid Game; Playing a mini Number-Grid Search Game	15. Use a rule to sort objects.
Unit 6 (Weeks 21-24)	• Mathematical relationships among numbers can be represented, compared, and communicated. • Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations. • Patterns exhibit relationships that can be extended, described, and	1. Introduction of the Penny 2. Introduction of the Nickel 3. Solid Shape Museum 4. Counts to Measure Time 5. Surveys and Graphs 6. I Spy with Shapes 7. Introduction of the Dime 8. Coin Exchanges 9. Comparison Number Stories 10. Count by 2s 11. Divide Groups in Half	• What characteristics do we use to identify coins? • How is a 2-dimensional shape differ from a 3-dimensional shape? • When given a graph how do we interpret the information provided? • What does it mean to skip count and can you provide an example?	CC.2.1.K.A.1 Know number names and write and recite the count sequence. CC.2.3.K.A.1 Identify and describe two- and three-dimensional shapes. CC.2.4.K.A.4 Classify objects and count the number of objects in each category.	• Classify the penny • Classify the nickel • Categorize three dimensional shapes • Count to measure time • Conduct a survey and graph results • Distinguish 2-D and 3-D shapes through game play • Classify the dime • Exchange pennies, nickels, and dimes • Compare using number stories • Skip count by 2's • Divide groups in	6.1 Reading about pennies; Making penny rubbings; Buying penny snacks 6.2 Making nickel rubbings; Playing Penny-Nickel Exchange; Playing store 6.3 Reading a 3-dimensional adventure; Playing Stand Up If...; Identifying block shapes 6.4 Discussing "The Tortoise and the Hare"; Timing other	Counting by 10's Identifying pennies, nickels, dimes Using nonstandard measuring tools and units to measure length Using attribute rules to find objects Using basic probability terms

	generalized. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Measurement attributes can be quantified, and estimated using customary and non-customary units of measure. • Mathematical relations and functions can be modeled through multiple representations and analyzed to raise answer questions. • Data can be modeled and used to make inferences. • Patterns exhibit relationships that can be extended, described, and generalized. • Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization. • Mathematical relationships among numbers can be represented, compared, and communicated. • Numerical	12. Read My Mind Game 13. Tools for Measuring Time 14. Skip Count with Calculators 15. Symbolic Representations of Patterns 16. Division of Whole Objects into Halves	• What are the different parts of a clock and what do they tell us? • How do I skip count with a calculator?		half • Organize attribute clues and rules through game play • Measure short periods of time using tools • Skip count using a calculator • Compare and construct patterns using symbols • Divide whole objects into half	activities 6.5 Making concrete graphs; Reading about surveys 6.6 Going on a shape scavenger hunt; Making a solid shapes book; Feeling for shapes 6.7 Making dime rubbings; Playing Penny-Dime Exchange; Comparing coins by feel 6.8 Playing exchange games and making an exchange chart; Making and recording coin exchanges 6.9 Acting out comparison stories; Solving comparison pocket problems 6.10 Reading and counting by 2s; Marking "2s" on write on/wipe off number grids 6.11 Sharing cookies equally; Playing Cover Half 6.12 Making attribute collages; Playing Guess Who? 6.13 Exploring tooks for timing; Timing minutes and half minutes 6.14 Solving problems using skip counting; Skip counting by other numbers 6.15 Playing instrument patterns; Making a pattern book	

	quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Patterns exhibit relationships that can be extended, described, and generalized.					6.16 Reading about dividing things; Making half-and-half pizzas	
Unit 7 (Weeks 25-28)	• Mathematical relationships among numbers can be represented, compared, and communicated. • Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations. • Patterns exhibit relationships that can be extended, described, and generalized. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Measurement attributes can be quantified, and estimated using customary and non-customary units of measure. • Mathematical relations and	1. Money Cube Game 2. Class Collections 3. Class Number Story Book 4. Marshmallow and Toothpick Shapes 5. Introduction of the Quarter 6. Dice Addition Games 7. Late-in-the-Year Counting 8. 10s and 1s with Craft Sticks 9. Name Collections with Craft Sticks 10. Number Scrolls 11. Decade Count 12. Plus or Minus Game 13. Double Digits with Dice 14. Numbers in Sequence 15. "What's My Rule?" with Patterns 16. Bead String Name Collections	• How can we create a graph based on the data that we have received from a survey? • What happens when we take a group of numbers or objects apart or put them together? • How do I sort these coins? • How is mathematics used to quantify, compare, represent, and model numbers? • Why does "what" we measure influence "how" we measure?	CC.2.1.K.A.1 Know number names and write and recite the count sequence. CC.2.1.K.A.2 Apply one-to-one correspondence to count the number of objects. CC.2.1.K.A.3 Apply the concept of magnitude to compare numbers and quantities. CC.2.1.K.B.1 Use place value to compose and decompose numbers within 19. CC.2.2.K.A.1 Extend concepts of putting together and taking apart to add and subtract within 10. CC.2.3.K.A.2 Analyze, compare, create, and compose two- and three-dimensional shapes.	• Practice and show how to exchange coins • Show how to collect data • Create a class number story book • Build 2-D and 3-D shapes • Classify a quarter • Modify addition skills through game play • Reinforce counting skills through oral counts • Use craft sticks to represent place value • Explore equivalent names for numbers • Create a number scroll • Count and record through routine • Identify addition and subtraction symbols through game play • Compare and build 2-digit numbers through game play • Order numbers • Compare and identify pattering rules through game play	7.1 Reviewing coin exchanges; Playing Money Grid; Using coins in games 7.2 Collecting recyclables; Making an art project 7.3 Reading a book of number stories; Writing number models for pocket problems and train games; Making individual number story books 7.4 Drawing with shapes; Making shapes with straws 7.5 Playing Money Cube with quarters; Making quarter rubbings; Comparing coins by feel 7.6 Reading an addition story; Playing Dice Race 7.7 Skip counting; Playing counting games 7.8 Using coins to represent 10s and 1s; Generating and representing numbers 7.9 Playing Guess My Number; Representing numbers with	Identifying names and values of coins Identifying addition and subtraction stories Using +, -, and = symbols to represent number stories Modeling half of a collection Adding small numbers Using manipulatives to model numbers and make exchanges Comparing and ordering numbers

					• Use objects to show equivalent names for numbers	connecting cubes 7.10 Playing games on the number grid; Number scrolling; "Counting On" using calculators 7.11 Representing decade counts with sticks; Using a computer game to explore place value 7.12 Playing Plus and Minus Steps; Playing Clear the Board and Cover the Board 7.13 Building Numbers as 10s and 1s; Playing Number-Grid Grab; Entering and comparing numbers on the calculator 7.14 Playing High, Low; Making a grocery list 7.15 Making movement patterns in a song; Identifying patterns in stories and songs 7.16 Reading about name collections; Making different buildings with the same number of blocks	
	• functions can be modeled through multiple representations and analyzed to raise answer questions. • Data can be modeled and used to make inferences. • Patterns exhibit relationships that can be extended, described, and generalized. • Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization. • Mathematical relationships among numbers can be represented, compared, and communicated. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Patterns exhibit relationships that can be extended, described, and generalized.						
Unit 8 (Weeks 29-32)	• Mathematical relationships among numbers can be represented, compared, and	1. Ones, Tens, Hundreds Game 2. How Long is an Hour? 3. The Hour-Hand Clock	• What different ways can we show an hour? • What is the purpose and how can I use a	CC.2.1.K.A.1 Know number names and write and recite the count sequence. CC.2.1.K.A.2	• Distinguish place value through game play • Interpret time to the hour • Compare analog	8.1 Practicing making bundles; Playing Paper Money Exchange Game 8.2 Ordering time	Exchanging 1s for 10s for 100s Representing equivalent names for numbers

	communicated. • Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations. • Patterns exhibit relationships that can be extended, described, and generalized. • Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. • Measurement attributes can be quantified, and estimated using customary and non-customary units of measure. • Mathematical relations and functions can be modeled through multiple representations and analyzed to raise answer questions. • Data can be modeled and used to make inferences. • Patterns exhibit relationships that can be extended, described, and generalized. • Geometric relationships can be described,	4. High Roller Game 5. Introduction to Function Machines 6. Number Gymnastics Game 7. Introduction of the $1 Bill 8. One-Dollar Game 9. Name Collection Posters 10. "What's My Rule?" With Numbers 11. Hour-Hand, Minute-Hand Story 12. Time Match Game 13. Missing Number Problems 14. Number Stories with Calculators 15. Pan Balance with Uniform Weights 16. Introduction of the $10 Bill	function machine box? • When we have more than two objects, how do we figure out which is heaviest and lightest?	Apply one-to-one correspondence to count the number of objects. CC.2.1.K.A.3 Apply the concept of magnitude to compare numbers and quantities. CC.2.1.K.B.1 Use place value to compose and decompose numbers within 19. CC.2.2.K.A.1 Extend concepts of putting together and taking apart to add and subtract within 10. CC.2.4.K.A.1 Describe and compare attributes of length, area, weight, and capacity of everyday objects. CC.2.4.K.A.4 Classify objects and count the number of objects in each category.	and digital clocks • Count with addition through game play • Use and show how a function machine works • Manipulate numbers through game play • Exchange coins through game play • Interpret equivalent number names through activity • Identify function rules through game play • Practice with minute hand • Practice telling time through game play • Find missing number through game play • Show number stories using a calculator • Use nonstandard units with a pan balance • Classify 10$ bill	intervals; Marking time in different ways 8.3 Drawing daily events; Reading The Groucy Leadybug; Playing Walk around the Clock; Making a human clock 8.4 Playing High Roller; Playing High Roller with calculators 8.5 Acting as function machines; Applying skip-counting rules; Using function machines 8.6 Placing Number-Grid Grab; Recording Number Gymnastics Numbers 8.7 Reading a dollar story; Making exchanges 8.8 Reading money stories; Playing exchange games 8.9 Reading about equivalent names for numbers; Finding equivalent dominoes 8.10 Solving "What's My Rule?" with a partner 8.11 Exploring the length of a minute; Adding clocks to the daily schedule 8.12 Playing Time Match with cards faceup; Studying clocks; Playing Time Match 8.13 Modeling missing-number problems on a walk-on number line; Using number-model cards	Applying rules to complete number pairs Identifying 2-and 3-dimensional shapes Identifying addition and subtraction situations Using +, -, and = symbols to model number stories Generating equivalent names for numbers Using addition and subtratction to generate equivalent names for numbers End-of-year Periodic Assessment 1. Count on by 1s 2. Count back by 1s 3. Count on by 2s, 5s, and 10s 4. Count objects 5. Estimate the number of onbjects in a collection 6. Model numbers with manipulatives 7. Exchange 1s for 10s and 10s for 100 8. Read and write (or dictate) 2-digit numbers

						8.14 Creating number stories for pictures; Reading the class number story book 8.15 Illustrating heavier and lighter; Weighing dry or wet sponges; Weighing snack food; Using other nonstandard weights 8.16 Playing the Advanced Paper Money Exchange Game; Adding dollar amounts on a calculator	9. Use manipulatives to model half of a region or collection

- analyzed, and classified based on spatial reasoning and/or visualization.
- Mathematical relationships among numbers can be represented, compared, and communicated.
- Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools.
- Patterns exhibit relationships that can be extended, described, and generalized.

9. Use manipulatives to model half of a region or collection

10. Give equivalent names for numbers

11. Compare and order numbers

12. Solve number stories. Identify join and take-away situations. Read and write expressions and number sentences using the symbols +, -, and =.

13. Use graphs to answer simple questions

14. Describe events using basic probability terms

15. Use nonstandard tools and techniques to estimat and compare weight and length

16. Identify pennies, nickles, dimes, quarters, and dollar bills.

17. Identify standard measuring tools.

18. Describe and use time periods relative to a day and week.

19. Identify 2-dimensional shapes

| | | | | | | | and 3-dimensional solids

20. Identify shapes having line symmetry

21. Extend, describe, and create patterns

22. Use a rule to sort objects

23. Use rules for "What's My Rule?' Fishing. |
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