Grade 1	Unit 1: Number Computation		Suggested Length: Ongoing
Essential Questions	*Program of Studies* and Core Content	Key Terms and Vocabulary	Classroom Instruction and Assessment Student will:
1. How are numbers used in our everyday life?	***Program of Studies*** ❑ *NC-2 order groups of objects according to quantity* ❑ *NC-3 explore appropriate estimation procedures* ❑ *NC-8 order and compare numbers from 0-20, using physical models* ❑ *NC-10 read, write, count, and model whole numbers, 0-100, developing place value for hundreds.* ❑ *NC-12 explore multiples, skip counting by twos (odd, even).* ❑ *NC-13 count backwards by ones.* ❑ *NC-17 explore multiples, skip count by fives and tens* ❑ *NC-24 divide an area into thirds and fourths, naming fractional parts* ❑ *NC-31 recognize that a set of objects can be broken into parts in many ways.* ❑ *NC-32 understand concepts of subtraction.* ❑ *NC-34 develop part-part-whole relationships using numbers (e.g., 3 + 2 = 5, 1 + 4= 5).* ❑ *NC-35 explore addition and subtraction of two-digit numbers using manipulatives.* **Core Content** ❑ **MA-EP-1.1.1 Students will:** ❑ **apply multiple representations (e.g., drawings, manipulatives, base-10 blocks, number lines, expanded form, symbols) to describe whole numbers (0 to 9,999):** ❑ **apply multiple representations (e.g., drawings, manipulatives, base-10 blocks, number lines, expanded form, symbols) to describe fractions (halves, thirds, fourths);**	❑ Whole Number ❑ Digit ❑ Ones ❑ Tens ❑ Place value ❑ Odd ❑ Even ❑ Ordinal numbers ❑ Fraction ❑ Halves	❑ Count to 100 through daily calendar time using a visual guide The Hundred Number Chart. DOK 1 ❑ Students will practice writing numbers daily through guided practice, writing the day's date, matching sets and numbers, compares one and two digit numbers, orders one and two digit numbers, estimates and counts collections of items. DOK 1 ❑ Students read story problems and draw pictures that represents the problem and number sentences. This is done daily. DOK 2

Grade 1	Unit 1: Number Computation		Suggested Length: Ongoing
Essential Questions	*Program of Studies* and Core Content	Key Terms and Vocabulary	Classroom Instruction and Assessment Student will:
	❑ **apply these numbers to represent real-world problems; and** ❑ **explain how the base 10 number system relates to place value. DOK 2** ❑ MA-EP-1.1.2 Students will read, write, and rename whole numbers (0 to 9,999) and apply to real-world and mathematical problems. ❑ **MA-EP-1.1.3 Students will compare (<, >, =) and order whole numbers to whole numbers, decimals to decimals (as money only) and fractions to fractions (limited to pictorial representation). DOK 1** ❑ **MA-EP-1.2.1Students will apply and describe appropriate strategies for estimating quantities of objects and computational results (limited to addition and subtraction). DOK 2** ❑ **MA-EP-1.3.1 Students will analyze real-world problems to identify the appropriate mathematical operations, and will apply operations to solve real-world problems with the following constraints:** ❑ **add and subtract whole numbers with three digits or less;** ❑ **multiply whole numbers of 10 or less;** ❑ **add and subtract fractions with like denominators less than or equal to four and** ❑ **add and subtract decimals related to money. DOK 2** ❑ MA-EP-1.3.2 Students will skip-count forward and backward by 2s, 5s, 10s, and	❑ Equals ❑ Addition ❑ Subtraction ❑ Forward ❑ Solve ❑ Tally marks	❑ Students will identify squares in a train using terms "fewest" and "most". DOK 2 ❑ Activity: Students will estimate quantities of objects. Students will work in groups at workstations to estimate and count objects that are in containers. Students will record the data that is collected at each workstation is a specially designed booklet. DOK 2 ❑ Students are introduced to addition and subtraction through the use of strategies. (Examples: Doubles, "The Doubles Rap", doubles plus 1, The Dot Cube Game, Shake Those Beans to teach fact families, number line, touch math, skip counting) DOK 2 ❑ Practice skip counting by 2's through the use of a number line and a hundred number charts. DOK 1 ❑ Activity: Students will brainstorm a list of items that come in 2's. DOK 2

Grade 1	Unit 1: Number Computation		Suggested Length: Ongoing
Essential Questions	*Program of Studies* and Core Content	Key Terms and Vocabulary	Classroom Instruction and Assessment Student will:
	100s. ❑ MA-EP-1.3.3 Students will divide two digit numbers by single digit divisors (with or without remainders) in real-world and mathematical problems. ❑ **MA-EP-1.5.1Students will identify and provide examples of odd numbers, even numbers, and multiples of a number and will apply these numbers to solve real-world problems. DOK 2** ❑ MA-EP-1.5.2 Students will use the commutative properties of addition and multiplication, the identity properties of addition and multiplication and the zero property of multiplication in written and mental computation.		❑ Students will count by 5's using tally marks to keep score through math computation races. DOK 1 ❑ Students will use a number line that displays multiples of five to aid assist in their counting to help memorization. DOK 1 ❑ To the tune of "BINGO" students sing a song to learn even and odd numbers. Students also will sing "Two Shoes" along with the movements to learn even and odd numbers. DOK 1 ❑ Assessments: ongoing throughout the year

Grade 1	Unit 2: Geometry/Measurement		Suggested Length: Ongoing
Essential Questions	*Program of Studies* and Core Content	Key Terms and Vocabulary	Classroom Instruction and Assessment Student will:
1. How do we use geometry and measurement in everyday life?	***Program of Studies*** ❑ *GM-1 identify, describe, and make geometric figures (e.g., circle, triangle, square, rectangle).* ❑ *GM-2 compare the size (larger/smaller) and shape of plane geometric figures*		

Grade 1	Unit 2: Geometry/Measurement		Suggested Length: Ongoing
Essential Questions	*Program of Studies* and Core Content	Key Terms and Vocabulary	Classroom Instruction and <u>Assessment</u> Student will:
	❑ *GM-4 draw two-dimensional shapes* ❑ *GM-7 determine if simple shapes are symmetrical* ❑ *GM-10 determine lines of symmetry in simple shapes.* ❑ *GM-19 compare and order by size (e.g., large/small) and length/width.* ❑ *GM-20 identify coins and bills by value.* ❑ *GM-21 tell time to the hour.* **<u>Core Content</u>** ❑ **MA-EP-2.1.1 Students will apply standard units to measure length (to the nearest half-inch or nearest centimeter) and to determine;** ❑ **weight (nearest pound);** ❑ **time (nearest quarter hour);** ❑ **money (identify coins and bills by value)and** ❑ **temperature (Fahrenheit). DOK 1** ❑ MA-EP-2.1.2 Students will use standard units to measure temperature in Fahrenheit and Celsius to the nearest degree. ❑ MA-EP-2.1.3 Students will choose appropriate tools (e.g., thermometer, scales, balances, clock, ruler) for specific measurement tasks. ❑ MA-EP-2.1.4 Students will use nonstandard and standard units of measurement to identify measurable attributes of an object (length – in, cm; weight – oz, lb) and make an estimate using appropriate units of measurement. ❑ MA-EP-2.1.5 Students will use units of measurement to describe and compare	❑ Cup ❑ Quart ❑ Gallon ❑ Liter ❑ Points ❑ Inch (es)	❑ Students identify shortest/longest lengths of line segments. DOK 1 ❑ Students draw a line segments by connecting two endpoints by use of a ruler. DOK 2 ❑ Using a variety of containers students will distinguish between which has more or less liquid thru teacher demonstration. DOK 2 ❑ Students will visualize that although the containers are different sizes the amount of liquid contained in them may look different even though each one contains the same amount. DOK 2 ❑ Through class demonstration students are introduced to the terms quart, gallon and liters. DOK 2

Grade 1	Unit 2: Geometry/Measurement		Suggested Length: Ongoing
Essential Questions	*Program of Studies* and Core Content	Key Terms and Vocabulary	Classroom Instruction and Assessment Student will:
	attributes of objects to include length (in, cm), width, height, money (cost), temperature (F), and weight (oz, lb), and sort objects and compare attributes by shape, size, and color.		
	❑ MA-EP-2.1.6 Students will estimate weight, length, perimeter, area, angles, and time using appropriate units of measurement.		❑ Students will measure a variety of objects using non-standard units of measurement such as linking cubes. DOK 2
	❑ MA-EP-2.2.1 Students will describe, define, give examples of and use to solve real-world and mathematical problems nonstandard and standard (U.S. Customary, metric) units of measurement to include length (in., cm.), time, money, temperature (Fahrenheit) and weight (oz., lb.).		
	❑ MA-EP-2.2.2 Students will determine elapsed time by half hours.		
	❑ MA-EP-2.2.3 Students will convert units within the same measurement system including money (dollars, cents), time (minutes, hours, days, weeks, months), weight (ounce, pound), and length (inch, foot).		
	❑ **MA-EP-3.1.1 Students will describe and provide examples of basic geometric elements and terms (sides, edges, faces, bases, vertices, angles), and will apply these elements to solve real-world and mathematical problems. DOK 2**	❑ Angles ❑ Point ❑ Segment ❑ Sides ❑ Edges ❑ Length ❑ Width	❑ Given a particular shape, students will identify and classify objects found in the classroom/school by their characteristics. DOK 2
	❑ **MA-EP-3.1.2 Students will describe and provide examples of basic two-dimensional shapes (circles, triangles, squares, rectangles, trapezoids, rhombuses,**	❑ Circle ❑ Square ❑ Rectangle	❑ Students will cover a design using pattern blocks and then create their own design using different shapes. DOK 2

Grade 1	Unit 2: Geometry/Measurement		Suggested Length: Ongoing
Essential Questions	*Program of Studies* and Core Content	Key Terms and Vocabulary	Classroom Instruction and Assessment Student will:
	hexagons), and will apply these shapes to solve real-world and mathematical problems. DOK 2 ❑ **MA-EP-3.1.3 Students will describe and provide examples of basic three-dimensional objects (spheres, cones, cylinders, pyramids, cubes), and will apply the attributes to solve real-world and mathematical problems. DOK 1** ❑ MA-EP-3.1.5 Students will identify and describe congruent figures in real-world and mathematical situations. ❑ **MA-EP-3.2.1 Students will describe and provide examples of line symmetry in real-world and mathematical problems or will apply one line of symmetry to construct a simple geometric design. DOK 2** ❑ MA-EP-3.3.1 Students will locate points on a grid representing a positive coordinate system.	❑ Triangle ❑ Hexagon ❑ Cones ❑ Spheres ❑ Congruent	❑ Through teacher demonstration students are introduced to the terms cone and sphere and name similar objects. They will be shown a drumstick ice cream and the globe to make a real-life connection. DOK 2 ❑ Thru comparing and contrasting different shapes and teacher demonstration students will identify which shapes are congruent. DOK 2

Grade 1	Unit 3:Probability/Statistics		Suggested Length: Ongoing
Essential Questions	*Program of Studies* and Core Content	Key Terms and Vocabulary	Classroom Instruction and Assessment Student will:
1. How can understanding probability help you analyze information?	***Program of Studies*** ❑ *PS-4 read data displayed on pictographs (a display of information using symbols or pictures).* ❑ *PS-5 display data on a bar graph.* ❑ *PS-6 read and compare data on bar graph.* ❑ *PS-7 explore chance as illustrated in games and experiences*		

Grade 1	Unit 3:Probability/Statistics		Suggested Length: Ongoing
Essential Questions	*Program of Studies* and Core Content	Key Terms and Vocabulary	Classroom Instruction and Assessment Student will:
	❑ *PS-10 compare chance (probability) as two separate events (e.g., likely/unlikely outcomes).* **Core Content** ❑ **MA-EP-4.1.1 Students will analyze and make inferences from data displays (drawings, tables/charts, tally tables, pictographs, bar graphs, circle graphs with two or three sectors, line plots, two-circle Venn diagrams). DOK 3** ❑ MA-EP-4.1.2 Students will collect data. ❑ MA-EP-4.1.3 Students will organize and display data. ❑ MA-EP-4.2.1 Students will determine the mode (of set of data with no more than one mode) and the range of a set of data. ❑ MA-EP-4.3.1 Students will pose questions that can be answered by collecting data ❑ MA-EP-4.4.3 Students will describe and give examples of the probability of an unlikely event (near zero) and a likely event (near one).	❑ Pictograph ❑ Bar graph ❑ Data ❑ Predictions	❑ Each student will be given a penny and a tally sheet to compile their data on how many times they flipped head or tails. Students will discuss their results. DOK 2 ❑ Daily student helper will use tally marks to record each student ‘s lunch choice and the results will be sent to the cafeteria. DOK 2 ❑ Students will predict which number on the dot cube ❑ that they will roll the most on the dot cube. They will play the dot cube game and record their data on their graph. DOK 2 ❑ The class will compile the data from the dot cube game to design a class bar graph. DOK 2 ❑ Students will be given an apple and they will count apple seeds. They will be given apple cutouts to display their data on a graph. DOK2 ❑ Student will create questions/statements concerning data collected. DOK 3 ❑ Make a list of likely/unlikely events. DOK 2

Grade 1	Unit 4:Algebraic Ideas		Suggested Length: Ongoing
Essential Questions	*Program of Studies* and Core Content	Key Terms and Vocabulary	Classroom Instruction and Assessment Student will:
	Program of Studies		

Grade 1	Unit 4:Algebraic Ideas		Suggested Length: Ongoing
Essential Questions	*Program of Studies* and Core Content	Key Terms and Vocabulary	Classroom Instruction and <u>Assessment</u> Student will:
1. How does understanding patterns/missing addends help us to problem solve daily?	❑ *A-4 create, reproduce, and extend patterns of movements and sounds.* ❑ *A-5 identify and describe patterns in real life, numerical, and geometric situations.* ❑ A-8 solve simple equations (e.g., ___ - 2 = 7). **<u>Core Content</u>** ❑ **MA-EP-5.1.1Students will extend simple patterns (e.g., 2,4,6,8,…;◊Δ◊Δ…). DOK 2**		❑ Students will be given a choice to create a pattern that would represent the ABB, ABAB, AAB pattern/rule, etc., by using pattern blocks. Students will then be asked to identify a partner's pattern. DOK 2 ❑ A teacher - generated pattern will be placed on the board and the teacher will demonstrate how to extend the pattern to students. After many modeled samples, students will be asked to identify the 15th shape if the pattern was extended. DOK 3
	❑ **MA-EP-5.1.2 Students will describe functions (input-output) through pictures and words. DOK 2** ❑ MA-EP-5.1.3 Students will determine the value of an output given a function rule and an input value.		❑ Students will construct algebraic number sentences along with pictures to determine the functions. DOK 2
	❑ **MA-EP-5.3.1 Students will model real-world and mathematical problems with simple number sentences (equations and inequalities) with a missing value (e.g., 2 + ? =7, __< 6), and apply simple number sentences to solve real-world problems. DOK 2**	❑ Commutative ❑ Associative ❑ Sum ❑ Equations	❑ Using mats and coins, students will find the missing addend for combinations of sums of 10. DOK 2