Topics	Kindergarten	1st Grade	2nd Grade	3rd Grade
	 Count to 100 by 1s and 10s. 	o Count on by 1's, 2's, 5's, and 10's past 100 and backwards by	 Count with understanding and recognize "how many" in sets of objects 	
	 Begin to count by 5s toward 100 	1 S	• Use multiple models to develop initial	 Read and write numbers up to 1,000,000
	 Count forward beginning from a given number within the 	estimate number objects in a collection	base-ten number system	 Read and write number words
	known sequence (instead of having to begin at 1)	o Use manipulatives and drawings to model beloes thirds	 Understand the meanings, uses and representations of numbers 	 Recognize roman numerals to X
	$_{\odot}$ Count back by 1s from 20	and fourths as equal parts of a region or collection	 Say place value up to the thousands 	 Use a number line and number chart to recognize patterns
	$_{\odot}$ Count collections up to 3	o Identify and model odd and even numbers	 Develop a sense of whole numbers and represent and use them in flexible 	 Recognize and use ordinal numbers
	 Read numbers to 31 	a Compare and order whole	ways	 Order numbers to the millions place
Numbers & Numeration	 Correctly write numbers 1-10 	numbers up to 1,000	 Understand and use equivalent names for numbers 	$_{\odot}$ Use place value to the millions place
	 Demonstrate understanding that teen numbers represent 10 and some more 1s 		o Make reasonable estimations	 Study and compare fractions. Represent fractions with physical objects and numbers.
	Begin to demonstrate an		$\circ~$ Understand and represent commonly used fractions, such as 1/4, 1/3, and $\frac{1}{2}$	 Recognize fractions and use when reporting in measurement
	 Use manipulatives and 		 Draw and use manipulatives to model fractions 	 Use numerical expressions to find and represent equivalent names for numbers
	drawings to model halves of a region or collection		 Discover equivalent fractions understand the value of coins and can 	 Use numerical expressions involving two arithmetic operations
	 Begin to use ordinal numbers correctly 		accurately exchange coins for equal amounts	
	 Compare numbers to determine more, less, and equal 	o Demonstrate proficiency with sum-equals-ten addition and subtraction facts such as 10-7=3	 Compute accurately when adding and subtracting whole numbers 	 Demonstrate automaticity with basic addition and subtraction facts
Operations & Compu	 Use language such as combine, add, take away, and give to describe joining situations 	o Use manipulatives, number grids, tally marks, and mental	 Model place value of ones, tens and hundreds 	 Perform addition and subtraction of whole
-tation	(addition) and separating	arithmetic to solve problems		numbers using a variety of methods, including

	 Begin to solve joining and separating puzzles using manipulatives, representations, number lines, graphs, numbers, and mental math 	 Identify comparisons and parts-and-total situations Compare the values of combinations of coins 		 Use properties of addition such as commutative property and associative property Use carrying and borrowing when adding and subtracting multi digit numbers Know and use mental addition and subtraction facts up to 10+10 Understand multiplication- with quick recall of 2-5 and 9-10 facts Explore the concept of division and its relation to multiplication Follow steps to solve word/story problems Estimate using ballpark estimates and rounding
Data & Chance	 Begin to collect and organize data to create tally charts, bar graphs, and line graphs Use graphs to answer simple questions Begin to use basic probability terms such as certain, possible, likely 	 o Collect and organize data to create tally charts, tables, and bar graphs o Use graphs to answer simple questions and draw conclusions o Describe events using basic probability terms such as <i>certain, unlikely, impossible, etc.</i> 	 Pose questions and gather data about themselves and their surroundings Sort and classify objects according to their attributes and organize data about the objects Represent data using concrete objects, pictures, and graphs 	 Collect data and build tables, charts and graphs Analyze tables, charts and graphs to recognize trends and draw conclusions Understand median, range and mean Recognize, identify, and create patterns, and use them to make predictions Begin exploring probability terms
Measure- ment & Reference Frames	 Demonstrate understanding that measuring is a way of describing things and comparing things in terms of such qualities as size, weight, and capacity Describe measurements using appropriate vocabulary, such as: longer, shorter, hotter, colder, higher, lower, heavier, lighter Begin to use a calendar to describe measures of time such as day, week, month, year, and season 	 o Use standard and nonstandard tools and techniques to estimate and compare weight and length o Know and compare the value of pennies, nickels, dimes, quarters and dollar bills. Make exchanges between coins o Identify a thermometer as a tool for measuring temperature and read to the nearest 10 degrees o Use a calendar to identify 	 Recognize the attributes of length, volume, weight, and time Compare and order objects according to these attributes Understand how to measure using nonstandard and standard units Select an appropriate unit and tool for the attribute being measured 	 Identify appropriate units to use when measuring various objects Use standard and non-standard units to measure and estimate measurements of various objects Time: Tell time on a clock to the minute. Manipulate a clock to show a specified time Time: Explore the concept of a.m. and p.m. Time: Explore elapsed time

		days, weeks, months and dates; tell and show time to the nearest half and quarter hour		 Calendar: Use calendar effectively. Show specified days on the calendar. Know and use the order of the months Money: Read and write prices. Count coins. Show various combinations of coins for the same price (i.e. five nickels + 1 penny is the same as two dimes + 1 nickel + 1 penny). Make change for simple "purchases." Temperature: read Fahrenheit and Celsius temperatures on thermometers and thermometer models
Geometry	 Identify shapes as flat or solid Identify and describe 2- dimensional shapes: circle, oval, triangle, square, rectangle Identify and describe 3- dimensional shapes: sphere, cube Demonstrate understanding of symmetry: identify symmetrical shapes and designs; complete and create symmetrical shapes and designs Demonstrate understanding of positional and directional vocabulary including: in, out, on, off, under, above, behind, between 	o Identify and describe plan and solid figures including circles, triangles, spheres, cylinders, prisms, etc.	 recognize, name, build, draw, compare, and sort two- and three- dimensional shapes describe attributes and parts of two- and three-dimensional shapes investigate and predict the results of putting together and taking apart two- and three-dimensional shapes 	 Identify line segments, rays, lines, parallel and perpendicular lines and lines of symmetry Identify angles Identify common 2-D shapes Identify, manipulate, and know characteristics of common three-dimensional shapes, such as sphere, cube, cylinder, prism, and pyramid Combine shapes to arrive at new shapes Explore geometric concepts such as area, perimeter, and circumference
Patterns, Functions & Algebra	 Recognize and name similarities and differences between things Sort and classify according to specific attributes Identify, extend and create patterns with objects, actions, movements, sounds, and words Engage in math activities and games based on specific rules (such as how the amount is being manipulated or altered). 	 Extend, describe and create numeric, visual and create patterns Read, write, and explain expressions and number sentences using the symbols +,-, and = and the symbols < and >with cues; solve addition and subtraction equations 	 sort, classify, and order objects by size, number, and other properties recognize, describe, and extend patterns such as sequences of sounds and shapes or simple numeric patterns and translate from one representation to another analyze how both repeating and growing patterns are generated 	 Describe extend and make generalizations about geometric and numeric patterns Model problem situations with objects and use representations such as graphs, tables and equations to draw conclusions

 o Be sente and = 	Begin to read and write number tences using the symbols +, -, I =			
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