

Learning Goals	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9
Counting and cardinality	Know number names and the count sequence	Extend the count sequence							
	Count to tell the number of objects								
	Compare numbers		Add and subtract within 20 with fluency						
Number and Operations in Base 10	Work with numbers 11-19 to gain foundations for place value	Understand place value	Understand place value to 1000	Use place value understanding and properties of operations to perform multi-digit arithmetic	Generalize place value understanding for multi-digit whole numbers	Understand the place value system	Understand ratio concepts and use ratio reasoning to solve problems	Analyze proportional relationships and use them to solve real-world and mathematical problems	
		Use place value understanding and properties of operations to add and subtract	Use place value understanding and properties of operations to add and subtract within 100		Use place value understanding and properties of operations to perform multi-digit arithmetic	Perform operations with multi-digit whole numbers and with decimals to hundredths	Compute fluently with multi-digit numbers and find common factors and multiples	Apply and extend previous understandings of operations with fractions to add, subtract and divide rational numbers	Know that there are numbers that are not rational, and approximate them by rational numbers
						Apply and extend previous understandings of numbers to the system of rational numbers	Know that there are numbers that are not rational and approximate them by rational numbers		
Number and Operations - Fractions				Develop understanding of fractions as numbers	Extend understanding of fraction equivalence and ordering	Use equivalent fractions as a strategy to add and subtract fractions			
					Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers		Apply and extend previous understandings of multiplication and division to multiply and divide fractions	Apply and extend previous understandings of multiplication and division to divide fractions by fractions	
					Understand decimal notation for fractions, and compare decimal fractions				

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Operations and Algebraic Thinking	Understand addition as putting together and adding to and subtraction as taking apart and taking from	Represent and solve problems involving addition and subtraction	Represent and solve problems involving addition and subtraction within 100	Represent and solve problems involving multiplication and division			Reason about and solve one-variable equations and inequalities								
		Understand and apply properties of operations and the relationship between addition and subtraction	Work with equal groups of objects to gain foundations for multiplication	Understand properties of multiplication and the relationship between multiplication and division											
		Add and subtract within 20		Multiply and divide within 100 with fluency	Gain familiarity with factors and multiples				Work with radicals and integer exponents						
		Work with addition and subtraction equations		Solve problems involving the four operations, and identify and explain patterns in arithmetic	Use the four operations with whole numbers to solve problems				Write and interpret numerical expressions				Apply and extend previous understandings of arithmetic to algebraic expressions	Use properties of operations to generate equivalent expressions	Understand the connection between proportional relationships, lines, and linear equations
					Generate and analyze patterns				Analyze patterns and relationships				Represent and analyze quantitative relationships between dependent and independent variables	Solve real-life and mathematical problems using numerical and algebraic expressions and equations	Analyze and solve linear equations and pairs of simultaneous linear equations
Functions									Define, evaluate, and compare functions						
									Use functions to model relationships between quantities						

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Measurement and Data	Describe and compare measurable attributes	Represent and interpret data up to 3 categories	Represent and interpret data up to 4 categories	Represent and interpret data with several categories	Represent and interpret data – line plots	Represent and interpret data – line plots	Develop understanding of statistical variability	Use random sampling to draw inferences about a population	Investigate patterns of association in bivariate data	
							Summarize and describe distributions	Draw informal comparative inferences about two populations		
								Investigate chance processes and develop, se, and evaluate probability models		
		Measure lengths indirectly and by iterating length units	Measure, estimate, add and subtract lengths in standard units	Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects						
			Relate addition and subtraction to length							
	Classify objects and count the number of objects in each category		Work with money							
	Demonstrate an understanding of time concepts and tools that measure time	Tell and write time	Work with time							
				Understand concepts of area and relate area to multiplication and division	Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit	Convert like measurement units within a given measurement system				
				Recognize perimeter as an attribute of plane figures and distinguish between linear and area measures	Understand concepts of angle and measure angles	Understand concepts of volume and relate volume to multiplication and addition				
	Geometry	Identify and describe shapes	Reason with shapes and their attributes – defining and non-defining, compose and decompose	Reason with shapes and their attributes – angles, faces and partitioning	Reason with shapes and their attributes – categories and equal areas	Draw and identify lines and angles, and classify shapes by properties of their lines and angles	Classify two-dimensional figures into categories based on their properties	Solve real-world and mathematical problems involving area, surface area, and volume	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume	Understand the Pythagorean Theorem
Analyze, compare, create and compose shapes		Solve real-life and mathematical problems involving volume of cylinders, cones and spheres							Solve real-world and mathematical problems involving volume of cylinders, cones and spheres	
		Draw, construct and describe geometrical figures and describe the relationships between them							Understand congruence and similarity using physical models, transparencies, or geometry software	