



Math Mammoth Curriculum Scope and Sequence



Fall 2024

Topic

Place Value	Grade							
	1	2	3	4	5	6	7	8
Numbers 0-100	x							
Numbers 0-1000		x						
Numbers 0-10,000			x	x				
Numbers 0-1,000,000				x				
Numbers 0-1,000,000,000,000					x			
Numbers 0-1,000,000,000,000,000						x		
Using the calculator					x			
Exponents and powers					x	x	x	
Rounding to the nearest ten			x	x				
Rounding to the nearest 100				x				
Rounding to the nearest 1000				x				
Rounding to any place					x	x		
Estimation			x	x	x	x		
Scientific notation							(x)	x
Significant digits								x

Addition and Subtraction

	1	2	3	4	5	6	7	8
Within 0-10	x							
Addition and subtraction facts within 0-10	x							
Addition and subtraction facts within 0-18		x						
Mental addition & subtraction (2-digit)	x	x	x					
Mental addition & subtraction (3-digit)		x	x					
Mental addition & subtraction (4-digit)				x				
Regrouping in addition (2-digit)		x						
Regrouping in addition (3-digit)		x	x					
Regrouping in addition (4-digit)			x	x				
Regrouping in addition (5+ digit)				x				
Regrouping in subtraction (2-digit)		x						
Regrouping in subtraction (3-digit)		x	x					
Regrouping in subtraction (4-digit)			x	x				
Regrouping in subtraction (5+digit)				x				

Time

	1	2	3	4	5	6	7	8
Telling time – whole and half hours	x							
Telling time – five-minute intervals		x						
Telling time to the minute			x					
Elapsed time		x	x	x				
Calendar	x	x	x					
Conversions between units of time				x				
24-hour clock				x				

Money

	1	2	3	4	5	6	7	8
Counting coins	x	x	x					
Figuring out totals		x	x					
Figuring out change		x	x					
Money word problems		x	x	x				

Measurement	1	2	3	4	5	6	7	8
Measuring length	x	x	x	x	x			
Customary units of length		x	x	x				
Metric units of length		x	x	x				
Conversions between units of length				x	x	x		
Measuring weight		x	x	x				
Customary units of weight		x	x	x				
Metric units of weight		x	x	x				
Conversions between units of weight				x	x			
Measuring volume			x	x				
Customary units of volume			x	x				
Metric units of volume			x	x				
Conversions between units of volume				x	x			
The metric system (prefixes)					x	x		

Multiplication	1	2	3	4	5	6	7	8
Concept of multiplication		x	x					
Multiplication tables			x					
Partial products			x	x	x			
Multiply numbers with zeros (20 x 300 etc)			x	x	x			
Multi-digit multiplication				x	x			

Division	1	2	3	4	5	6	7	8
Division concept			x					
Division facts			x					
Remainder			x	x	x			
Long division (1-digit divisor)				x	x			
Long division (2-digit divisor)					x	x		

Geometry	1	2	3	4	5	6	7	8
Basic 2-D shapes	x	x						
Patterns with shapes	x	x						
Basic 3-D shapes		x						
Right angle			x					
Classifying shapes			x		x	x		
Area of rectangles			x					
Perimeter			x	x	x	x		
Angles				x	x			
Volume of a rectangular prism					x	x		
Volume of other solids							x	x
Area of triangle						x		
Area of a parallelogram						x		
Area of polygons						x	x	
Area of circumference of circle							x	
Nets and surface area						x	x	
Converting between units of area						x	x	
Angle relationships							x	x
Drawing geometric figures							x	
Cross-sections							x	
Geometric transformations								x
Scale drawings/similar figures							x	x
The Pythagorean Theorem							(x)	x

Fractions	1	2	3	4	5	6	7	8
Halves and quarters	x							
Halves, thirds, and fourths		x						
All basic fractions			x					
Comparing fractions		x	x	x	x			
Fractions on a number line			x					
Equivalent fractions			x	x	x			
Mixed numbers				x	x			
Add and subtract fractions (same denominator)				x	x			
Add and subtract fractions (different denominator)					x	x		
Multiply a fraction and a whole number				x	x			
Add and subtract mixed numbers (same denominator)				x	x			
Add and subtract mixed numbers (different denominator)					x			
Simplifying (reducing) fractions					x	x		
Multiply a fraction by a fraction					x	x		
Multiply mixed numbers					x	x		
Divide fractions (special cases)					x			
Divide fractions						x		
Complex fractions							x	
Arithmetic with negative fractions							x	
Fractions to decimals					x	x	x	x

Decimals	1	2	3	4	5	6	7	8
Decimal numbers (up to 2 decimal digits)				x				
Decimal numbers (up to 3 decimal digits)					x			
Decimal numbers (4 or more decimal digits)						x		
Decimals on a number line				x	x			
Comparing decimals					x	x		
Rounding decimals					x	x		
Add and subtract decimals with mental math				x	x	x		
Add and subtract decimals in columns				x	x	x		
Multiply a decimal and a whole number					x	x		
Multiply and divide by powers of ten					x	x		
Multiply decimals by decimals					x	x		
Multiply and divide decimals - mental math					x	x		
Long division with decimals					x	x		
Divide decimals by decimals					x	x		
Arithmetic with negative decimals							x	

Number Theory	1	2	3	4	5	6	7	8
Divisibility				x	x			
Find factors of a number				x	x			
Prime numbers				x	x			
Prime factorization					x	x		
GCF						x		
LCM						x		

Problem solving	1	2	3	4	5	6	7	8
Word problems	x	x	x	x	x	x	x	x
Problem solving with bar models			x	x	x	x		

Graphing	1	2	3	4	5	6	7	8
The coordinate grid					x	x		
Patterns in the coordinate grid					x	x		
Graphing linear equations							x	x
Slope							(x)	x
Slope-intercept equation								x
The standard form of a linear equation								x
Horizontal and vertical lines								x

Statistical graphs and statistics	1	2	3	4	5	6	7	8
Bar graphs		x	x	x				
Pictographs		x	x					
Line graphs				x	x			
Average (mean)				x	x	x		
median and mode						x		
Range and interquartile range						x		
Mean absolute deviation						x		
Boxplots, histograms, stem-and-leaf plots						x		
Statistical distributions						x		
Random sampling							x	
Comparing two populations or samples							x	
Scatter plots								x
Two-way tables								x

Ratios and proportions	1	2	3	4	5	6	7	8
Ratio						x	x	
Unit rate						x	x	
Equivalent rates						x	x	
Aspect ratio						x		
Using ratios to convert measurement units						x		
Proportions							x	
Proportional relationships							x	x
Scale drawings/similar figures							x	x

Percent	1	2	3	4	5	6	7	8
Concept of percent						x	x	
What percentage						x	x	
Find a percentage of a number						x	x	
Discounts						x	x	
Percentage of change							x	
Simple interest							x	
Equations with percent							x	
Percent proportion							x	

Integers	1	2	3	4	5	6	7	8
Integers – basic concepts						x	x	
Adding and subtracting integers						x	x	x
Multiplying and dividing integers							x	

Algebra	1	2	3	4	5	6	7	8
Order of operations			x	x	x	x	x	x
Solving simple equations with logical reasoning	x	x	x	x	x	x		
Expressions						x	x	x
The distributive property						x	x	x
Solving one-step equations algebraically						x	x	
Solving multi-step linear equations algebraically							x	x
Inequalities							x	
Exponent rules								x
Formulas							x	x
Equation word problems							x	x
Number of solutions								x
Concept of a function								x
Linear functions								x
Systems of linear equations								x

Number system / misc	1	2	3	4	5	6	7	8
Square roots							(x)	x
Cube roots								x
Rational numbers							x	x
Irrational numbers								x