Math Mammoth Grade 5 (2023 ed.)
Alignment to the Common Core Standards

The table below lists each lesson in the two student worktexts, 5-A and 5-B, and next to it the relevant Common Core Standard (CCS). This document applies to the 2023 edition.

Math Mammoth Grade 5-A

Chapter 1: The Four Operations

Note: The CCS do not include prime factorization; however I feel it is an important enough topic that it should be included.

Lesson	page	Standards
Warm Up: Mental Math		
The Order of Operations		5.OA.1 5.OA.2
Equations		5.OA.2
Review: Addition and Subtraction		5.OA.2
Review: Multiplication and Division		5.OA.2
Partial Products, Part 1		5.OA.2
Partial Products, Part 2		
The Multiplication Algorithm		5.NBT.5
More Multiplication		5.NBT.5
Review of Long Division		5.NBT.6
A Two-Digit Divisor		5.NBT.6
More Long Division		5.NBT.6
Division with Mental Math		5.NBT.6
Long Division and Repeated Subtraction (optional)		5.NBT.6
Divisibility and Factors		
More on Divisibility		
Primes and Finding Factors		4.OA.4
Prime Factorization		
Chapter 1 Review		5.OA.1 5.OA.2 5.NBT.5 5.NBT.6

Chapter 2: Large Numbers and the Calculator

Note: there is no numbered standard for adding and subtracting whole numbers in 5th grade, but the standards document states in the introduction part for 5th grade that students "finalize fluency with multi-digit addition, subtraction, multiplication, and division."

Also, while rounding and estimating are not mentioned in the standards for 5th grade, since students learn and use bigger numbers in this chapter than they did in 4th grade, I feel it is good to review and practice those topics one more time.

Lesson	page	Standards
A Little Bit of Millions		5.NBT.1
Exponents and Powers		5.NBT.2
The Place Value System		5.NBT.1
Multiplying Numbers by Powers of Ten		5.NBT.2
Adding and Subtracting Large Numbers		4.NBT.4
Rounding		4.NBT.3
The Calculator		(MP5)
When to Use the Calculator		(MP5)
Mixed Review Chapter 2		5.NBT.2 5.NBT.6
Review		5.NBT.1 5.NBT.2

Chapter 3: Problem Solving

Note: Problem solving or word problems are not mentioned in any of the numbered individual standards for 5th grade. However, obviously word problems are to be included in 5th grade mathematics; for example the recommended mathematical practices in the Common Core Standards include that students are to "Make sense of problems and persevere in solving them."

Lesson	page	Standards
Balance Problems and Equations, Part 1		6.EE.6 6.EE.7
Balance Problems and Equations, Part 2		6.EE.6 6.EE.7
Problem Solving with Bar Models 1		5.OA.2 5.NBT.6 5.NBT.7 (MP1)
Problem Solving with Bar Models 2		(MP1)
Problem Solving with Bar Models 3		5.OA.2 5.NBT.6 5.NBT.7 (MP1)
Problem Solving with Bar Models 4		5.OA.2 5.NBT.6 5.NBT.7 (MP1)
Miscellaneous Problems		(MP1)
Mixed Review Chapter 3		5.OA.1 5.NBT.2 5.NBT.5 5.NBT.6
Chapter 3 Review		5.NBT.6 5.NBT.7

Chapter 4: Decimals, Part 1

Lesson	page	Standards
Review: Tenths and Hundredths		5.NBT.1
More Decimals: Thousandths		5.NBT.1 5.NBT.3
Decimals on a Number Line		5.NBT.1 5.NBT.3
Add and Subtract Decimals—Mental math		5.NBT.7 5.NBT.1
Add and Subtract Decimals in Columns		5.NBT.7
Comparing Decimals		5.NBT.3
Rounding Decimals		5.NBT.4
Multiply a Decimal by a Whole Number		5.NBT.7
More on Multiplying Decimals		5.NBT.7 5.OA.1
More Practice and Review		5.NBT.3 5.NBT.7
Divide Decimals by Whole Numbers 1		5.NBT.7
Divide Decimals by Whole Numbers 2		5.NBT.7
Mixed Review Chapter 4		5.OA.1 5.NBT.1 5.NBT.6
Review		5.NBT.1 5.NBT.2 5.NBT.3 5.NBT.4 5.NBT.7

Chapter 5: Graphing

Math Mammoth Grade 5-B

Chapter 6: Decimals, Part 2

Lesson	page	Standards
Multiply and Divide by Powers of Ten 1	13	5.NBT.1 5.NBT.7
Multiply and Divide by Powers of Ten 2	16	5.NBT.2 5.NBT.7
Multiply and Divide by Powers of Ten 3	19	5.NBT.6 5.NBT.7
Multiply Decimals by Decimals 1	21	5.NBT.7
Multiply Decimals by Decimals 2	23	5.NBT.7
Multiplication as Scaling	26	5.NF.5
Decimal Multiplication—More Practice	30	5.OA.1 5.NBT.7 5.NF.5
Dividing Decimals—Mental Math	32	5.OA.2 5.NBT.7
More Division with Decimals	35	5.OA.2 5.NBT.7
The Metric System 1	38	5.MD.1
The Metric System 2	42	5.MD.1
Divide Decimals by Decimals 1	45	5.NBT.7
Divide Decimals by Decimals 2	48	5.NBT.4 5.NBT.7
Converting Between Customary Units of Measurement	53	5.NBT.4 5.MD.1
Problem Solving	57	5.NBT.7
Mixed Review Chapter 6	61	5.NBT.1 5.NBT.3 5.G.2
Chapter 6 Review	63	5.NBT.4 5.NBT.7 5.NF.5 5.MD.1

Chapter 7: Fractions: Add and Subtract

Note: The topic of equivalent fractions is not mentioned in the standards per say, but it is a necessary prerequisite for adding and subtracting unlike fractions. That is why the standard 5.NF.1 is mentioned in parentheses for those two lessons.

Lesson	page	Standards
Review: Mixed Numbers	70	
Adding Mixed Numbers	73	4.NF.3
Subtracting Mixed Numbers 1	76	4.NF.3
Subtracting Mixed Numbers 2	80	4.NF.3
Equivalent Fractions 1	82	(5.NF.1)
Equivalent Fractions 2	85	(5.NF.1)
Adding and Subtracting Unlike Fractions	87	5.NF.1
Finding the (Least) Common Denominator	90	5.NF.1
Add and Subtract: More Practice	93	5.NF.1
Adding and Subtracting Mixed Numbers	96	5.NF.1 5.NF.2
Comparing Fractions	99	
Word Problems	104	5.NF.2
Measuring in Inches	106	
Line Plots and More Measuring	109	5.NF.2 5.MD.2
Mixed Review Chapter 7	112	5.OA.3 5.NBT.4 5.NBT.6 5.NBT.7 5.MD.1 5.G.2
Review	115	5.NF.1 5.NF.2 5.MD.2

Chapter 8: Fractions: Multiply and Divide

Note: While simplification of fractions is not mentioned in the Common Core Standards, it is a necessary part of fraction arithmetic, and thus it is included in the curriculum.

Lesson	page	Standards
Simplifying Fractions 1	121	
Simplifying Fractions 2	124	
Multiply Fractions and Whole Numbers 1	127	5.NF.4 5.NF.6 5.MD.2
Multiply Fractions and Whole Numbers 2	129	5.NF.4 5.NF.6
Multiply Fractions by Fractions 1	131	5.NF.4 5.NF.6
Multiply Fractions by Fractions 2	134	5.NF.4 5.NF.6
Fraction Multiplication and Area	136	5.NF.4 5.NF.6
Simplifying Before Multiplying	142	5.NF.4 5.NF.6
Multiplying Mixed Numbers	145	5.NF.6
Multiplication as Scaling/Resizing	148	5.NF.5
Fractions Are Divisions	151	5.NF.3
Dividing Fractions: Sharing Divisions	155	5.NF.7
Dividing Fractions: Fitting the Divisor	158	5.NF.7
Dividing Fractions: Summary	161	5.NF.7
Dividing Fractions: the Shortcut	163	6.NS.1
Mixed Review Chapter 8	166	5.NF.1 5.NBT.1 5.NBT.7 5.MD.1 5.NBT.6
Review	169	5.NF.3 5.NF.4 5.NF.5 5.NF.6 5.NF.7

Chapter 9: Geometry

Note: The lessons on angles and area & perimeter review topics from 4th grade.

Lesson	page	Standards
Review: Angles	176	4.MD.5 4.MD.6
Polygons	180	4.MD.6 5.G.4
Classifying Quadrilaterals 1	183	5.G.3 5.G.4
Classifying Quadrilaterals 2	186	5.G.3 5.G.4
Classifying Quadrilaterals 3	189	5.G.3 5.G.4
Classifying Triangles 1	191	5.G.4
Classifying Triangles 2	194	5.G.4
Volume	196	5.MD.3 5.MD.4
Volume of Rectangular Prisms (Cuboids)	201	5.MD.5
Volume is Additive	204	5.MD.5
Area and Perimeter Problems	207	4.MD.3
Star Polygons	212	
Mixed Review Chapter 9	214	5.NBT.6 5.NBT.7 5.NF.1 5.NF.4 5.NF.7 5.NF.6 5.OA.3
Review	217	5.MD.4 5.MD.5 5.G.3 5.G.4