

Knowre Math: **Grade 3** Curriculum

Chapter 1 Place Value

Lesson	Topic	VA MSL
1-1 Models of Numbers Less Than 10,000	A) Using Base Ten Blocks to Model Numbers	3.1.a
1-2 Place Values Less Than 1,000,000	A) Place Values Less Than Millions	3.1.a
	B) Expanded and Standard Form of Numbers	
1-3 Reading and Writing Numbers Less Than 10,000	A) Reading and Writing Three-Digit Numbers	3.1.a
	B) Reading and Writing Four-Digit Numbers	
1-4 Comparing and Ordering Numbers Less Than 10,000	A) Place Values to Compare Numbers Less Than 1,000	3.1.c
	B) Comparing Numbers Less Than 1,000	
	C) Place Values to Compare Numbers Less Than 10,000	
	D) Comparing Numbers Less Than 10,000	
	E) Ordering Numbers Less Than 10,000	
1-5 Rounding	A) Rounding Numbers to the Nearest Ten, Hundred, and Thousand on a Number Line	3.1.b, 3.3.a
	B) Rounding Numbers to the Nearest Ten, Hundred, and Thousand	

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Chapter 2 Adding and Subtracting

Lesson	Topic	VA MSL
2-1 Using Models to Add	A) Base Ten Blocks to Add when the Sum is Less Than 1,000	3.3.b
	B) Place Value Charts to Add when the Sum is Less Than 1000	
2-2 Using the Standard Algorithm to Add	A) Vertical Addition of Two Numbers with Two or Fewer Digits	3.3.b
	B) Vertical Addition of Two Numbers with Three or Fewer Digits	
	C) Vertical Addition of Two Numbers with Four or Fewer Digits	
2-3 Using Models to Subtract	A) Base Ten Blocks to Subtract when the Minuend is Less Than 1,000	3.3.b
	B) Place Value Charts to Subtract when the Minuend is Less Than 10,000	
	C) Place Value Charts to Subtract when Regrouping Over Zero	
2-4 Using the Standard Algorithm to Subtract	A) Vertical Subtraction without Regrouping when the Minuend is Less Than 10,000	3.3.b
	B) Vertical Subtraction with Regrouping when the Minuend is Less Than 10,000	
	C) Vertical Subtraction with Regrouping Over Zero when the Minuend is Less Than 10,000	
2-5 Horizontal Addition and Subtraction	A) Horizontal Addition of Two Numbers	3.3.b
	B) Horizontal Subtraction of Two Numbers	
2-6 Addition and Subtraction Relationships	A) Horizontal Addition and Subtraction of Three or More Numbers	3.3.b
	B) Relationships Between Addition and Subtraction Sentences	
	C) Missing Numbers in Addition and Subtraction Sentences	
2-7 Estimating Sums and Differences	A) Estimating Sums	
	B) Estimating Differences	

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Chapter 3 Modeling Multiplication

Lesson	Topic	VA MSL
3-1 Equal Groups	A) Describing Equal Groups	
	B) Writing Repeated Addition Expressions from Equal Groups	
	C) Finding the Total Number of Objects in Equal Groups	
3-2 The Meaning of Multiplication	A) Multiplication as Equal Groups	
	B) Repeated Addition and Multiplication Expressions	3.4.a, 3.4.b, 3.4.c
	C) Equal Groups and Multiplication Expressions	
3-3 Multiplication with Equal Groups and Addends	A) Parts of Multiplication Sentences	
	B) Repeated Addition to Multiply	3.4.a, 3.4.b, 3.4.c
	C) Equal Groups to Multiply	
3-4 Multiplication with Arrays	A) Arrays and Multiplication Sentences	3.4.a, 3.4.b, 3.4.c
	B) Arrays to Multiply	
3-5 Multiplication with Number Lines and Hundreds Charts	A) Number Lines and Multiplication Sentences	
	B) Number Lines to Multiply	3.4.a, 3.4.b, 3.4.c
	C) Hundreds Charts to Multiply	
3-6 The Order of Factors in Multiplication	A) Commutative Property of Multiplication	3.4.a, 3.4.b, 3.4.c

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Chapter 4 Multiplication Fluency

Lesson	Topic	VA MSL
4-1 Multiplying by Zero and One	A) Strategies to Multiply by One	3.4.a, 3.4.b, 3.4.c
	B) Strategies to Multiply by Zero	
4-2 Multiplying by Two and Four	A) Strategies to Multiply by Two	3.4.a, 3.4.b, 3.4.c
	B) Strategies to Multiply by Four	
4-3 Multiplying by Five and Ten	A) Strategies to Multiply by Five	3.4.a, 3.4.b, 3.4.c
	B) Strategies to Multiply by Ten	
4-4 Multiplying by Three and Six	A) Strategies to Multiply by Three	3.4.a, 3.4.b
	B) Strategies to Multiply by Six	
4-5 Multiplying by Seven, Eight, and Nine	A) Strategies to Multiply by Seven	3.4.a, 3.4.b
	B) Strategies to Multiply by Eight	
	C) Strategies to Multiply by Nine	
4-6 Basic Multiplication Facts	A) Single Digit Multiplication	3.4.a, 3.4.b
	B) Multiplying Ten and a One-Digit Number	

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Chapter 5 Modeling Division

Lesson	Topic	VA MSL
5-1 Equal Groups and Division	A) Sharing Objects into Equal Groups	3.4.a, 3.4.b
	B) Division as Equal Groups	
5-2 The Meaning of Division	A) Equal Groups and Division Expressions	3.4.a, 3.4.b
	B) Parts of Division Sentences	
	C) Equal Groups to Divide	
5-3 Division with Arrays	A) Arrays and Division Sentences	3.4.a, 3.4.b
	B) Arrays to Divide	
5-4 Division with Number Lines	A) Number Lines and Division Sentences	3.4.a, 3.4.b
	B) Number Lines to Divide	
5-5 Division as Repeated Subtraction	A) Division as Repeated Subtraction	3.4.a, 3.4.b
	B) Repeated Subtraction and Division Sentences	
	C) Repeated Subtraction to Divide	

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Chapter 6 Division Fluency

Lesson	Topic	VA MSL
6-1 Dividing by One and Two	A) Strategies to Divide by One	3.4.a, 3.4.b
	B) Strategies to Divide by Two	
6-2 Dividing by Five and Ten	A) Strategies to Divide by Five	3.4.a, 3.4.b
	B) Strategies to Divide by Ten	
6-3 Dividing by Three and Four	A) Strategies to Divide by Three	3.4.a, 3.4.b
	B) Strategies to Divide by Four	
6-4 Dividing by Six and Seven	A) Strategies to Divide by Six	3.4.a, 3.4.b
	B) Strategies to Divide by Seven	
6-5 Dividing by Eight and Nine	A) Strategies to Divide by Eight	3.4.a, 3.4.b
	B) Strategies to Divide by Nine	
6-6 Basic Division Facts	A) One-Digit Quotients When Dividing by One-Digit Numbers	3.4.a, 3.4.b
	B) One-Digit Quotients When Dividing by Ten	

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Chapter 7 Mixed Operations and Patterns

Lesson	Topic	VA MSL
7-1 Multiplication and Division Relationships	A) Relationships Between Multiplication and Division Sentences	3.4.a, 3.4.b
	B) Missing Numbers in Multiplication and Division Sentences	
7-2 Expressions and Equations	A) Addition and Subtraction Expressions	3.4.a, 3.4.b
	B) Multiplication and Division Expressions	
	C) Expressions with More Than One Operation	
7-3 Mixed Operations	A) Multiplying Three or More Numbers	3.4.a
	B) Dividing Three or More Numbers	
	C) Expressions with More Than One Operation	
7-4 Patterns	A) Repeating Patterns	3.16, 3.17
	B) Patterns and Rules	
	C) Even and Odd Numbers	
7-5 Multiplying by Multiples of Ten	A) Base Ten Blocks to Multiply a One-Digit Number and a Multiple of Ten	3.4.d, 3.16
	B) Place Value to Multiply a One-Digit Number and a Multiple of Ten	
	C) Multiplying a One-Digit Number and a Multiple of Ten	
7-6 Distributive Property to Multiply	A) Using Arrays to Model the Distributive Property	3.4.d
	B) Equal Expressions with Split Factors	
	C) Using the Distributive Property to Multiply	

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Chapter 8 Fractions

Lesson	Topic	VA MSL
8-1 Fraction Basics	A) Equal Parts	3.2.a
	B) Parts of Fractions	
	C) Reading and Writing Fractions	
8-2 Fractions as Shaded Parts	A) Modeling Fractions with Fraction Bars	3.2.a, 3.2.b
	B) Unit Fractions	
8-3 Fractions on Number Lines	A) Modeling Fractions on Number Lines	3.2.a, 3.2.b
8-4 Equivalent Fractions	A) Models to Write Equivalent Fractions	
	B) Models to Simplify Fractions	
8-5 Comparing Fractions	A) Comparing Fractions with the Same Denominator	3.2.c
	B) Comparing Fractions with the Same Numerator	
	C) Ordering Fractions with the Same Numerator or Denominator	

Chapter 9 Measurement

Lesson	Topic	VA MSL
9-1 Inches and Feet	A) Using Inches to Measure Objects	3.7.a
	B) Using Feet to Measure Objects	
9-2 Volume and Mass	A) Estimating Metric Units of Volume	3.7.b
	B) Estimating Metric Units of Mass	
9-3 Clocks	A) Clockwise and Counterclockwise	3.9.a
	B) Telling Time on an Analog Clock	
9-4 Elapsed Time	A) Time in a Given Number of Hours and Minutes	3.9.a, 3.9.b
	B) Time a Given Number of Hours and Minutes Age	
	C) Elapsed Time	
9-5 Money	A) Values of Sets of Mixed Coins	3.9.a, 3.9.b
	B) Values of Sets of Bills and Coins	

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Chapter 10 Data

Lesson	Topic	VA MSL
10-1 Pictographs	A) Making Scaled Pictographs	3.15.a, 3.15.b
	B) Using Scaled Pictographs to Make Tally and Frequency Tables	
	C) Reading Scaled Pictographs	
10-2 Bar Graphs	A) Using Scaled Bar Graphs to Make Tally and Frequency Tables	3.15.a, 3.15.b
	B) Making Scaled Bar Graphs	
	C) Reading Scaled Bar Graphs	
10-3 Line Plots	A) Understanding Line Plots	
	B) Using Line Plots to Make Tally and Frequency Tables	
	C) Making Line Plots	
	D) Reading Line Plots	

Chapter 11 Two-Dimensional Figures

Lesson	Topic	VA MSL
11-1 Attributes of Two-Dimensional Figures	A) Sides, Angles, and Vertices of Two-Dimensional Figures	3.11, 3.12.b
	B) Attributes of Figures Given Their Names	
	C) Identifying Figures with Given Attributes	
11-2 Quadrilaterals	A) Defining Quadrilaterals	3.12.a
	B) Attributes of Rectangles, Rhombuses, and Squares	
11-3 Perimeter	A) Perimeter on a Grid	3.8.a
	B) Perimeters of Figures with All Side Lengths Given	
	C) Perimeters of Rectangles and Squares	
11-4 Area	A) Area on a Grid	3.8.b
	B) Areas of Rectangles and Squares	
11-5 Area Extensions	A) Shapes with Equal Perimeters or Areas	3.8.a
	B) Areas of Figures Composed of Rectangles and Squares	