

Knowre Math: Grade 5 Curriculum

Chapter 1 Whole Numbers and Number Sense

Lesson	Topic	IAS
1-1 Place Value: Whole Numbers	A) Place Value Relationships	5.NS.3
	B) Expanded Form	
1-2 Products with Multiples of 10	A) Patterns in Zeros - Multiplication	5.NS.3, 5.NS.4
	B) Estimating Products	
1-3 Powers of 10	A) Exponents	5.NS.4
	B) Powers of Ten	
1-4 Number Properties	A) Commutative Property	5.C.9
	B) Associative Property	
	C) Identity Property	
	D) Multiplication and Division by Zero	
	E) Distributive Property	

Chapter 2 Whole Number Multiplication

Lesson	Topic	IAS
2-1 Multiplying by One-Digit Numbers - Tables and Partial Products	A) Multiply a One-Digit Number and a Multi-Digit Number - Table	5.C.1, 5.AT.1
	B) Multiply a One-Digit Number and a Multi-Digit Number - Partial Products	
2-2 Multiplying by One-Digit Numbers - Standard Algorithm	A) Multiply a One-Digit Number and a Multi-Digit Number - Standard Algorithm	5.C.1, 5.AT.1
	B) Horizontal Multiplication of a One-Digit Number and a Multi-Digit Number	
2-3 Multiplying Two Multi-Digit Numbers - Tables and Partial Products	A) Multiply Two Multi-Digit Numbers - Table	5.C.1, 5.AT.1
	B) Multiply Two Multi-Digit Numbers - Partial Products	
2-4 Multiplying Two Multi-Digit Numbers - Standard Algorithm	A) Multiply Two Multi-Digit Numbers - Standard Algorithm	5.C.1, 5.AT.1
	B) Horizontal Multiplication of Two Multi-Digit Numbers	

Knowre Math: Grade 5 Curriculum

Chapter 3 Whole Number Division

Lesson	Topic	IAS
3-1 Quotients with Multiples of 10	A) Patterns in Zeros - Division	5.NS.3, 5.NS.4, 5.C.2, 5.AT.1
	B) Estimating Quotients	
3-2 Dividing by One-Digit Numbers	A) Divide a Multi-Digit Number by a One-Digit Number - Partial Quotients	5.C.2, 5.AT.1
	B) Divide a Multi-Digit Number by a One-Digit Number - Standard Algorithm	
3-3 Dividing by Two-Digit Numbers	A) Divide Multi-Digit Numbers - Partial Quotients	5.C.2, 5.AT.1
	B) Divide Multi-Digit Numbers - Standard Algorithm	
3-4 Horizontal Division	A) Equivalent Forms of Division	5.NS.2, 5.C.2, 5.AT.1
	B) Horizontal Division	

Chapter 4 Expressions and the Order of Operations

Lesson	Topic	IAS
4-1 Whole Number Order of Operations	A) Order of Operations	6.C.6
4-2 Writing Expressions	A) Addition and Subtraction Expressions	5.AT.1
	B) Multiplication and Division Expressions	
	C) Power Expressions	
	D) Expressions with More Than One Operation	

Chapter 5 Decimal Number Sense

Lesson	Topic	IAS
5-1 Place Value: Decimals	A) Place Value	5.NS.3
	B) Reading and Writing Decimals	
	C) Place Value Relationships	
	D) Expanded Form	
5-2 Comparing and Ordering Decimals	A) Modeling Decimals	5.NS.1
	B) Using Models to Compare Decimals	
	C) Comparing Decimals	
5-3 Rounding Decimals and Estimating	A) Rounding Decimals	5.NS.5
	B) Estimating with Decimals by Rounding to the Nearest Whole	

Knowre Math: **Grade 5** Curriculum

Chapter 6 Adding and Subtracting Decimals

Lesson	Topic	IAS
6-1 Using Models to Add Decimals	A) Decimal Addition - Models	5.C.8, 5.AT.5
6-2 Adding Decimals	A) Adding Decimals - Standard Algorithm	5.C.8, 5.AT.5
	B) Horizontal Addition of Decimals	
6-3 Using Models to Subtract Decimals	A) Decimal Subtraction - Models	5.C.8, 5.AT.5
6-4 Subtracting Decimals	A) Subtracting Decimals - Standard Algorithm	5.C.8, 5.AT.5
	B) Horizontal Subtraction of Decimals	

Chapter 7 Multiplying and Dividing Decimals

Lesson	Topic	IAS
7-1 Multiplying a Decimal and a Power of Ten	A) Patterns in Zeros - Decimal Multiplication	5.NS.4, 5.C.8, 5.AT.5
7-2 Multiplying Decimals	A) Patterns in Zeros - Decimal Multiplication	5.C.8, 5.AT.5
	B) Decimal Multiplication - Standard Algorithm	
	C) Horizontal Multiplication of Decimals	
7-3 Dividing a Decimal and a Power of Ten	A) Patterns in Zeros - Decimal Division	5.NS.4, 5.C.8, 5.AT.5
7-4 Dividing Decimals	A) Dividing by a Whole Number	5.C.8, 5.AT.5
	B) Dividing by a Decimal	
	C) Horizontal Division of Decimals	

Knowre Math: **Grade 5** Curriculum

Chapter 8 Fraction Basics

Lesson	Topic	IAS
8-1 Simplifying Fractions	A) Factors of Numbers	6.NS.7
	B) Greatest Common Factor	
	C) Simplifying Fractions	
8-2 LCM and Equivalent Fractions	A) Multiples	6.NS.7
	B) Least Common Multiple	
	C) Equivalent Fractions	
8-3 Comparing and Ordering Fractions	A) Comparing Fractions	5.NS.1
	B) Ordering Fractions	
8-4 Fraction/Decimal Equivalents	A) Using Place Value to Write Decimals as Fractions	5.NS.2
	B) Using Place Value to Write Fractions as Decimals	

Knowre Math: **Grade 5** Curriculum

Chapter 9 Fraction Operations

Lesson	Topic	IAS
9-1 Adding Fractions	A) Add Fractions - Common Denominators	5.C.4, 5.AT.2
	B) Add Whole Numbers and Fractions	
	C) Add Mixed Numbers - Common Denominators	
	D) Add Fractions - Different Denominators	
	E) Add Mixed Numbers - Different Denominators	
9-2 Subtracting Fractions	A) Subtract Fractions - Common Denominators	5.C.4, 5.AT.2
	B) Subtract Whole Numbers from Mixed Numbers	
	C) Subtract Mixed Numbers - Common Denominators	
	D) Subtract Fractions - Different Denominators	
	E) Subtract Fractions from Mixed Numbers - Different Denominators	
	F) Subtract a Fraction from a Whole Number	
9-3 Using Models and Reasoning to Multiply Fractions	A) Compare Size of Product to Size of Factor	5.C.3, 5.C.5, 5.C.6, 5.AT.3, 5.M.2
	B) Fraction Multiplication - Models	
9-4 Multiplying Fractions	A) Multiplying Fractions	5.AT.3
	B) Multiplying Fractions and Whole Numbers	
	C) Multiplying with Mixed Numbers	
9-5 Dividing Fractions	A) Compare Size of Quotient to Size of Dividend	5.C.7, 5.AT.4
	B) Fraction Division - Models	
	C) Relationship Between Multiplication and Division	
	D) Reciprocals	
	E) Division with Unit Fractions	

Knowre Math: Grade 5 Curriculum

Chapter 10 Conversions

Lesson	Topic	IAS
10-1 Customary Length Conversions	A) Customary Length Conversions	5.M.1
10-2 Customary Volume and Weight Conversions	A) Customary Volume Conversions	5.M.1
	B) Customary Weight Conversions	
10-3 Metric Length Conversions	A) Metric Length Conversions	5.M.1
10-4 Metric Volume and Mass Conversions	A) Metric Volume Conversions	5.M.1
	B) Metric Mass Conversions	
10-5 Time Conversions	A) Time Conversions	5.M.1

Chapter 11 Coordinate Planes and Line Plots

Lesson	Topic	IAS
11-1 Coordinate Planes	A) Parts of the Coordinate Plane	5.AT.6
	B) Graphing Points on the Coordinate Plane	
	C) Writing Points as Ordered Pairs	
11-2 Patterns and Graphing	A) Tables and Ordered Pairs	5.AT.7, 5.AT.8
	B) Writing Rules from Patterns	
	C) Using Rules to Complete Tables and Graphs	
	D) Using Patterns to Complete Tables and Graphs	
	E) Writing Rules from Tables and Graphs	
11-3 Line Plots	A) Line Plots and Data Sets	5.DA.1
	B) Interpreting Data in Line Plots	

Knowre Math: **Grade 5** Curriculum

Chapter 12 Polygons and Prisms

Lesson	Topic	IAS
12-1 Classifying Polygons	A) Polygons	
	B) Congruent Segments and Angles	5.G.2
	C) Regular Polygons	
12-2 Classifying Triangles	A) Using Angle Measures to Classify Triangles	5.G.1, 5.G.2
	B) Using Side Lengths to Classify Triangles	
12-3 Classifying Quadrilaterals	A) Attributes of Special Quadrilaterals	
	B) Classifying Parallelograms	5.G.2
	C) Classifying Quadrilaterals	
12-4 Volumes of Rectangular Prisms	A) Using Unit Cubes to Find the Volume of a Solid	
	B) Multiplying Length, Width, and Height to Find the Volume of a Rectangular Prism	5.M.4, 5.M.5, 5.M.6
	C) Multiplying Area of Base and Height to Find the Volume of a Rectangular Prism	