IXL Skill Alignment

4th grade alignment for Sadlier Math

Use IXL's interactive skill plan to get up-to-date skill alignments, assign skills to your students, and track progress.

www.ixl.com/math/skill-plans/sadlier-math-4th-grade

This document includes the IXL® skill alignments to William H. Sadlier, Inc's Sadlier Math curriculum. IXL provides skill alignments as a service to teachers, students, and parents. The skill alignments are provided by IXL and are not affiliated with, sponsored by, reviewed, approved or endorsed by William H. Sadlier, Inc or any other third party. IXL® and IXL Learning® are registered trademarks of IXL Learning, Inc. All other intellectual property rights (e.g., unregistered and registered trademarks and copyrights) are the property of their respective owners.

Visit IXL.com for more information

IXL Learning © 2021

Chapter 1

Place Value

Textbook section	IXL skills
1-1: Thousands	1. Writing numbers up to one million in words: convert words to digits 5G4 2. Writing numbers up to one million in words: convert digits to words 7WT 3. Spell word names for numbers up to one million 2PZ *Also consider* • Place value models 2Y7 • Place value review B5N • Place value word problems Z47
1-2: What Is One Million?	1. Convert between place values KVR 2. Relationship between place values: 10 times as much 9DJ
1-3: Millions	1. Writing numbers up to one billion in words: convert words to digits RWK 2. Writing numbers up to one billion in words: convert digits to words XGX
1-4: Expanded Form	1. Convert between standard and expanded form: up to one billion SJP *Also consider* • Value of a digit WLP
1-5: Round Whole Numbers	1. Rounding: up to millions place E6V *Also consider* • Rounding puzzles XVJ • Rounding input/output tables CT2
1-6: Compare and Order Whole Numbers	1. Compare numbers up to one billion 8ZQ 2. Order numbers up to one billion SHX

© 2021 IXL Learning. Visit IXL.com today!

Also consider

- Missing digits in inequalities USN

1-7: Problem Solving: Make a Table

1. Compare numbers in tables EFV

Also consider

- Find the order JBQ

© 2021 IXL Learning. Visit IXL.com today!

Chapter 2
Addition

Textbook section	IXL skills
2-1: Mathematical Expressions	1. Write variable addition expressions: word problems K73
2-2: Addition Properties	1. Properties of addition D9R 2. Add using properties D7B
2-3: Estimate Sums	1. Estimate sums VMD *Also consider* • Estimate sums: word problems SB9
2-4: Add Thousands	1. Add numbers up to six digits 26W 2. Add two numbers up to five digits: word problems ZPY 3. Addition: find the missing digits ERL
2-5: Add Millions	1. Add two numbers up to nine digits 6QS 2. Add two numbers up to seven digits: word problems KJU
2-6: Three or More Addends	1. Add 3 or more numbers up to millions ZMC
2-7: Problem Solving: Make an Organized List	1. Find two numbers based on sum and difference KA2 2. Combinations ESU

© 2021 IXL Learning. Visit IXL.com today!

Chapter 3
Subtraction

Textbook section	IXL skills
3-1: Estimate Differences	1. Estimate differences QJY 2. Estimate differences: word problems GWS
3-2: Subtract with One Regrouping	1. Subtract numbers up to three digits EFP
3-3: Subtract with Two Regroupings	1. Subtract numbers up to five digits VP2 2. Subtract two numbers up to four digits: word problems 7KL
3-4: Subtract Greater Numbers	1. Subtract numbers up to seven digits VPX 2. Subtract numbers up to seven digits: word problems 9X2 *Also consider* • Subtraction: fill in the missing digits UXK • Subtraction patterns over increasing place values 5SX
3-5: Zeros in Subtraction	1. Subtract across zeros LZZ
3-6: Multi-Step Problems Using Addition and Subtraction	1. Balance addition equations NZS 2. Balance subtraction equations DCB 3. Multi-step addition and subtraction word problems CZM *Also consider* • Solve one-step variable equations: addition and subtraction TBG
3-7: Problem Solving: Use a Model	1. Interpret bar graphs: multi-step problems NCJ *Also consider* • Comparison word problems with addition and subtraction RJJ • Create bar graphs WMA

© 2021 IXL Learning. Visit IXL.com today!

Chapter 4

Multiplication Concepts

Textbook section	IXL skills
4-1: Multiplication Properties	1. Properties of multiplication B6N *Also consider* • Distributive property: find the missing factor US7
4-2: Use Place-Value Models	1. Multiply 1-digit numbers by teen numbers using grids 8UH
4-3: Multiply Tens, Hundreds and Thousands	1. Multiply by 10 or 100 M2N 2. Multiply numbers ending in zeroes P42 *Also consider* • Multiplication patterns over increasing place values Y5K • Multiply by numbers ending in zeroes: find the missing number CZX
4-4: Estimate Products	1. Estimate products: multiply by 1-digit numbers WDG 2. Estimate products word problems: identify reasonable answers KLA
4-5: Multiply to Compare Numbers	1. Compare numbers using multiplication GGE
4-6: Problem Solving: Represent the Situation	1. Compare numbers using multiplication: word problems QKB *Also consider* • Multiply three or four numbers: word problems Q6K

© 2021 IXL Learning. Visit IXL.com today!

Chapter 5

Multiply by One-Digit Numbers

Textbook section	IXL skills
5-1: Multiply with Regrouping	1. Multiply 1-digit numbers by 2-digit numbers II EQ7
5-2: Use Properties to Multiply One-Digit Numbers	1. Multiply using properties YR9 *Also consider* • Multiply using the distributive property LXG
5-3: Use Area Models to Multiply One-Digit Numbers	1. Multiply 1-digit numbers by 2-digit numbers using area models II HZX *Also consider* • Multiply 1-digit numbers by 2-digit numbers using area models I VCM
5-4: Multiply Three- and Four-Digit Numbers	1. Multiply 1-digit numbers by 3-digit or 4-digit numbers PPM *Also consider* • Multiply 1-digit numbers by 3-digit or 4-digit numbers using area models II WKL • Multiply 1-digit numbers by 3-digit or 4-digit numbers using expanded form SEG
5-5: Multiplicative and Additive Comparisons	1. Comparison word problems: addition or multiplication? YCW
5-6: Problem Solving: Guess and Test	1. Solve word problems using guess-and-check PCA

© 2021 IXL Learning. Visit IXL.com today!

Chapter 6

Multiply by Two-Digit Numbers

Textbook section	IXL skills
6-1: Use Area Models to Multiply by Two-Digit Numbers	1. Multiply 2-digit numbers by 2-digit numbers using area models II 8K7 *Also consider* • Multiply 2-digit numbers by 2-digit numbers using area models I ASZ
6-2: Break Apart Numbers to Multiply	1. Multiply 2-digit numbers by 2-digit numbers using partial products XLZ
6-3: Multiply by Two-Digit Numbers: No Regrouping	1. Multiply a 2-digit number by a 2-digit number: without regrouping NAR
6-4: Multiply by Two-Digit Numbers: Regrouping	1. Multiply a 2-digit number by a 2-digit number NRF 2. Multiply 2-digit numbers by 3-digit numbers ZV2 *Also consider* • Multiply a 2-digit number by a 2-digit number: complete the missing steps XQ8 • Multiply a 2-digit number by a larger number U2S • Multiply a 2-digit number by a larger number: complete the missing steps 7KE
6-5: Multiplication Patterns	1. Multiply numbers ending in zeroes NEL 2. Multiply numbers ending in zeroes: word problems K98
6-6: Write and Solve an Equation	1. Multiply a 2-digit number by a 2-digit number: word problems GZG 2. Multiply a 2-digit number by a larger number: word problems 8NY

© 2021 IXL Learning. Visit IXL.com today!

Chapter 7
Division Concepts

Textbook section	IXL skills
7-1: Division Rules	
7-2: Relate Multiplication and Division	1. Properties of division TNJ
7-3: Estimate Quotients	1. Estimate quotients using compatible numbers: 1-digit divisors CWE 2. Estimate quotients: word problems VC2 *Also consider* • Estimate quotients RCU
7-4: Use Models to Divide	1. Divide 2-digit numbers by 1-digit numbers using area models 7LG *Also consider* • Division facts to 12 R95 • Divide using the distributive property GDX
7-5: Number Patterns	1. Complete the input/output tables DCC *Also consider* • Complete the input/output table D98 • Input/output tables with addition, subtraction, multiplication, and division HDS • Use a rule to complete a number pattern 5P2
7-6: Problem Solving: Work Backwards	1. Multi-step word problems EA9 *Also consider* • Multi-step word problems: identify reasonable answers K6X

© 2021 IXL Learning. Visit IXL.com today!

Chapter 8

Divide by One-Digit Numbers

Textbook section	IXL skills
8-1: One-Digit Quotients	1. Divide 2-digit numbers by 1-digit numbers: quotients up to 10 7BS 2. One-step word problems involving remainders PYQ *Also consider* • Divide 2-digit numbers by 1-digit numbers using arrays M49
8-2: Divisibility	1. Divisibility rules for 2, 3, 5, and 10 WWS *Also consider* • Divisibility rules: word problems ZG8
8-3: Two-Digit Quotients	1. Divide 2-digit numbers by 1-digit numbers 4T7 2. Divide 2-digit numbers by 1-digit numbers: word problems QMT *Also consider* • Divide 2-digit numbers by 1-digit numbers using area models 7LG
8-4: Zeros in Quotient	1. Divide 3-digit numbers by 1-digit numbers TJS *Also consider* • Divide 3-digit numbers by 1-digit numbers using area models 6UL
8-5: More Quotients	1. Divide larger numbers by 1-digit numbers GE8 2. Divide larger numbers by 1-digit numbers: word problems DKK *Also consider* • Divide larger numbers by 1-digit numbers: complete the table 2UB • Divide larger numbers by 1-digit numbers: interpret remainders J8D

© 2021 IXL Learning. Visit IXL.com today!

8-6: Order of Operations	1. Perform multiple operations with whole numbers 9HE *Also consider* • Evaluate numerical expressions with parentheses 6WS • Evaluate variable expressions 88L
8-7: Multi-Step Problems Using Multiplication and Division	1. Multi-step word problems involving remainders SLS *Also consider* • Write variable equations to represent word problems: multiplication and division 72G
8-8: Problem Solving: Use a Model	1. Use strip diagrams to represent and solve multi-step word problems G8Z 2. Multi-step word problems with strip diagrams CZQ

© 2021 IXL Learning. Visit IXL.com today!

Chapter 9

Factors and Multiples

Textbook section	IXL skills
9-1: Factors	1. Identify factors 2S9 2. Choose numbers with a particular product U9N
9-2: Factor Pairs	1. Find all the factor pairs of a number URL
9-3: Prime and Composite Numbers	1. Prime and composite: up to 100 L9R *Also consider* • Which number is prime or composite? C6S • Divisibility rules for numbers up to 100 2XJ
9-4: Multiples	1. Choose the multiples of a given number up to 12 ENC 2. Divisibility rules: word problems ZG8
9-5: Common Multiples	1. Least common multiple CVK
9-6: Problem Solving: Four-Step Process	

© 2021 IXL Learning. Visit IXL.com today!

Chapter 10

Fraction Concepts

Textbook section	IXL skills
10-1: Fractions of a Set	1. Fractions of a number QB8 2. Fractions of a number: word problems 73D *Also consider* • Fractions review YPL • Fractions of a group: word problems WZP
10-2: Equivalent Fractions: Number Line Diagrams	1. Equivalent fractions: find the missing numerator or denominator WQM 2. Identify equivalent fractions using number lines CLW *Also consider* • Identify equivalent fractions GSG • Graph equivalent fractions on number lines WQL
10-3: Write Equivalent Fractions: Use Models	1. Find equivalent fractions using area models HYC *Also consider* • Are the fractions equivalent? CRS
10-4: Write Equivalent Fractions: Use Multiplication and Division	1. Patterns of equivalent fractions 7LH 2. Equivalent fractions: word problems 5ZG
10-5: Fractions: Lowest Terms	1. Write fractions in lowest terms YHA
10-6: Compare Fractions: Use Benchmarks	1. Compare fractions using one-half as a benchmark WJL *Also consider* • Benchmark fractions LUS • Compare fractions using benchmarks: find the missing numerator UKZ

© 2021 IXL Learning. Visit IXL.com today!

10-7: Compare Fractions with the Same Denominator	1. Graph and compare fractions with like denominators on number lines NAQ 2. Compare fractions with like denominators F67
10-8: Compare Fractions	1. Compare fractions 99U 2. Compare fractions: find the missing numerator or denominator KPU *Also consider* • Compare fractions using models 7XF • Find smaller or larger fractions PDJ
10-9: Mixed Numbers	1. Identify mixed numbers UX6
10-10: Compare Mixed Numbers	1. Compare mixed numbers 5TV
10-11: Order Fractions and Mixed Numbers	1. Order fractions MSB *Also consider* • Graph and order fractions on number lines 7GK
10-12: Problem Solving: Four-Step Process	1. Compare fractions in recipes U2K

© 2021 IXL Learning. Visit IXL.com today!

Chapter 11

Fractions: Addition and Subtraction

Textbook section	IXL skills
11-1: Use Models to Add Fractions	1. Add fractions with like denominators using strip models Z63 2. Add fractions using number lines QGU *Also consider* • Add fractions with like denominators using area models Y5W • Add fractions with like denominators: pick the model EMQ
11-2: Add Fractions: Like Denominators	1. Add fractions 2JP
11-3: Decompose Fractions as Sums of Unit Fractions	1. Decompose fractions into unit fractions using models QG2 2. Write a fraction as a sum of unit fractions 5WM 3. Write a fraction as a sum of fractions EAH 4. Write a fraction as a sum of fractions in multiple ways 7KM
11-4: Use Models to Subtract Fractions	1. Subtract fractions with like denominators using strip models QAS 2. Subtract fractions using number lines YAB *Also consider* • Subtract fractions with like denominators using area models P99 • Subtract fractions with like denominators: pick the model PXZ
11-5: Subtract Fractions: Like Denominators	1. Subtract fractions with like denominators AVF *Also consider* • Add and subtract fractions 68J • Add and subtract fractions with like denominators: complete the equation DNV • Add and subtract fractions with like denominators: word problems XBR

Visit IXL's interactive skill plan at www.ixl.com/math/skill-plans/sadlier-math-4th-grade

© 2021 IXL Learning. Visit IXL.com today!

11-6: Write Mixed Numbers as Equivalent Fractions	1. Convert between improper fractions and mixed numbers JFE
11-7: Add Mixed Numbers: Like Denominators	1. Add mixed numbers AXT
11-8: Subtract Mixed Numbers: Like Denominators	1. Subtract mixed numbers SLQ
11-9: Problem Solving: Compare Strategies	1. Add and subtract mixed numbers with like denominators: word problems 6KM

© 2021 IXL Learning. Visit IXL.com today!

Chapter 12

Fractions: Multiply by a Whole Number

Textbook section	IXL skills
12-1: Add Unit Fractions to Multiply	1. Multiples of unit fractions: find the missing numbers VYG
12-2: Model Multiplying a Unit Fraction and a Whole Number	1. Multiply unit fractions by whole numbers using models 8J3 *Also consider* • Multiply unit fractions by whole numbers using number lines XKJ
12-3: Multiply a Unit Fraction and a Whole Number	1. Multiply unit fractions by whole numbers EXQ *Also consider* • Multiply unit fractions by whole numbers: word problems DSB • Multiply unit fractions by whole numbers: sorting VGC
12-4: Model Multiplying a Fraction and a Whole Number	1. Multiply fractions by whole numbers using models Y5C 2. Multiply fractions by whole numbers using models: complete the equation CZ7 *Also consider* • Multiply fractions by whole numbers using number lines Q7B
12-5: Multiply a Fraction and a Whole Number	1. Multiply fractions by whole numbers 5JD *Also consider* • Multiply fractions by whole numbers: sorting X48 • Multiples of fractions: find the missing numbers RSY
12-6: Represent Situations Involving Multiplying a Fraction and a Whole Number	1. Multiply fractions by whole numbers: word problems VVT

© 2021 IXL Learning. Visit IXL.com today!

12-7: Problem Solving: Choose a Strategy

1. Fractions of a number: word problems 73D

Also consider

- Add, subtract, and multiply fractions: word problems W8H
- Multiply fractions by whole numbers in recipes 5HJ

© 2021 IXL Learning. Visit IXL.com today!

Chapter 13

Fractions and Decimals

Textbook section	IXL skills
13-1: Equivalent Fractions: Rename Tenths as Hundredths	1. Fractions with denominators of 10 and 100 VLP
13-2: Add and Subtract Fractions with Denominators of 10 and 100	1. Add and subtract fractions: denominators of 10 and 100 DRS *Also consider* • Identify fraction expressions with a particular sum: denominators of 10 and 100 TZH
13-3: Tenths and Hundredths as Fractions and Decimals	1. Convert between decimals and fractions HRD 2. Word names for decimal numbers 6JR *Also consider* • Model decimals and fractions less than 1 7Q5
13-4: Decimals Greater Than One	1. What decimal number is illustrated? B7E 2. Convert mixed numbers to decimals: denominators of 10 and 100 PYD *Also consider* • Model decimals and fractions TPV • Graph fractions as decimals on number lines 2N9
13-5: Decimal Place Value	1. Place values in decimal numbers UFR 2. Understanding decimals expressed in words LUL *Also consider* • Expanded form for decimals 5BM
13-6: Compare Decimals with Models and Symbols	1. Compare decimals using models CV7 2. Compare decimal numbers DY5 *Also consider* • Compare decimals on number lines T2W

© 2021 IXL Learning. Visit IXL.com today!

- Compare decimals using place value blocks APL
- Compare decimals and fractions TB7

13-7: Order Decimals

1. Put decimal numbers in order using a number line VLX
2. Put decimal numbers in order I LVX
3. Put decimal numbers in order II WFD

Also consider

- Put decimal numbers in order using models MDB
- Put decimal numbers less than one in order YDC

13-8: Problem Solving: Find a Pattern

1. Addition number patterns: word problems II B8H
2. Number patterns: word problems C62

Also consider

- Addition number patterns: word problems I QDZ
- Number patterns: mixed review E77
- Use a rule to complete a number pattern 5P2
- Number sequences involving decimals EZW

© 2021 IXL Learning. Visit IXL.com today!

Chapter 14

Measurement

Textbook section	IXL skills
14-1: Measure with Inches	1. Measure using an inch ruler EDW
14-2: Customary Units of Length	1. Convert customary units of length GYU *Also consider* • Compare customary units of length 6F6
14-3: Customary Units of Capacity	1. Convert customary units of volume F8V 2. Compare customary units of volume QGX 3. Conversion tables: customary units of capacity WND
14-4: Customary Units of Weight	1. Convert customary units of weight L7G 2. Compare customary units of weight YV8 *Also consider* • Which customary unit is appropriate? MKS
14-5: Operations with Customary Units	1. Convert mixed customary units L9Q 2. Measurement word problems: customary units 6FW *Also consider* • Add and subtract mixed measures with customary units TTA
14-6: Metric Units of Length	1. Convert metric units of length Z5S *Also consider* • Measuring using a centimeter ruler K5W • Compare metric units of length WMR
14-7: Metric Units of Capacity	1. Compare and convert metric units of capacity YRY

© 2021 IXL Learning. Visit IXL.com today!

14-8: Metric Units of Mass	1. Compare and convert metric units of mass LYK *Also consider* • Which metric unit is appropriate? FPM
14-9: Operations with Metric Units	1. Convert metric mixed units YP2 *Also consider* • Add and subtract metric mixed units WAL
14-10: Problem Solving: Make a Table	1. Multi-step measurement word problems A2E *Also consider* • Measurement word problems 2PY • Compare customary units by multiplying 8U7

© 2021 IXL Learning. Visit IXL.com today!

Chapter 15

Measurement and Data

Textbook section	IXL skills
15-1: Represent Measures on a Number Line	1. Compare and convert customary units UCE
15-2: Use Multiplication to Rename Measures	1. Conversion tables - customary units LSP 2. Conversion tables - metric units YTJ
15-3: Elapsed Time	1. Elapsed time TUH 2. Elapsed time: word problems VCC 3. Find start and end times: multi-step word problems ZQP
15-4: Temperature	1. Read a thermometer 6ZN
15-5: Line Graphs	1. Interpret line graphs 36B *Also consider* • Create line graphs QX2
15-6: Line Plots	1. Create line plots with whole numbers LV7 2. Interpret line plots G8K
15-7: Surveys and Line Plots	1. Create and interpret line plots with fractions QQB
15-8: Choose an Appropriate Display	1. Choose the best type of graph 7G4 2. Create bar graphs WMA 3. Interpret bar graphs 48Z
15-9: Problem Solving: Use Logical Reasoning	1. Find the order JBQ 2. Find two numbers based on sum, difference, product, and quotient RLS

© 2021 IXL Learning. Visit IXL.com today!

Chapter 16
Lines and Angles

Textbook section	IXL skills
16-1: Points, Lines, Line Segments, Rays, and Angles	1. Points, lines, line segments, rays, and angles 9MK
16-2: Angle Measure	1. Acute, right, obtuse, and straight angles R5K 2. Angles of 90, 180, 270, and 360 degrees UQV *Also consider* • Angles as fractions of a circle N72 • Use fractions to find the measure of an angle Q68
16-3: Measure Angles	1. Measure angles with a protractor NCN 2. Draw angles with a protractor R9K
16-4: Unknown Angle Measures	1. Adjacent angles KGM *Also consider* • Angle measures: word problems YUA
16-5: Parallel and Perpendicular Lines	1. Parallel, perpendicular, and intersecting lines 8VQ 2. Identify parallel, perpendicular, and intersecting lines DSU
16-6: Problem Solving: Use a Diagram	

© 2021 IXL Learning. Visit IXL.com today!

Chapter 17
Polygons

Textbook section	IXL skills
17-1: Polygons	1. Is it a polygon? MCE 2. Identify the number of sides in polygons 6PL
17-2: Quadrilaterals	1. Classify quadrilaterals A6V 2. Pick all the names for a quadrilateral 6CT 3. Draw quadrilaterals L5Y *Also consider* • Parallel sides in quadrilaterals 58M • Describe relationships among quadrilaterals C98
17-3: Triangles	1. Acute, obtuse, and right triangles 7QK 2. Scalene, isosceles, and equilateral triangles 5UV 3. Classify triangles U59
17-4: Symmetry	1. Identify lines of symmetry 9FD 2. Draw lines of symmetry SQF *Also consider* • Line symmetry HB9 • Count lines of symmetry MWS
17-5: Shape Patterns	1. Find the next shape in a pattern KG8 2. Complete a repeating pattern FNW 3. Shape patterns NVV *Also consider* • Make a repeating pattern V68
17-6: Use Perimeter Formulas	1. Find the perimeter of rectangles using formulas KGJ 2. Perimeter of rectangles: word problems KPB *Also consider* • Perimeter of polygons HLW

Visit IXL's interactive skill plan at www.ixl.com/math/skill-plans/sadlier-math-4th-grade

© 2021 IXL Learning. Visit IXL.com today!

17-7: Use Area Formulas

1. Find the area of rectangles using formulas JBF
2. Create rectangles with a given area BMV
3. Area of rectangles: word problems 8DC

Also consider

- Find the missing side length of a rectangle UPZ
- Area of complex figures (with all right angles) 38W

17-8: Problem Solving: Draw a Picture

1. Area and perimeter: word problems LTP
2. Use area and perimeter to determine cost 5GF

Also consider

- Area between two rectangles GY2
- Rectangles: relationship between perimeter and area word problems S9M

© 2021 IXL Learning. Visit IXL.com today!