



IXL Skill Alignment

Grade 4 alignment for enVision Mathematics Common Core



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Topic 1

Generalize Place Value Understanding

Textbook section

IXL skills

Lesson 1-1: Numbers Through One Million

1. Convert between standard and expanded form: up to 1,000,000 4R6
2. Writing numbers up to one million in words: convert digits to words 7WT

Also consider

- Writing numbers up to one million in words: convert words to digits 5G4
- Spell word names for numbers up to one million 2PZ
- Place value word problems Z47

Lesson 1-2: Place Value Relationships

1. Relationship between place values KFD
2. Value of a digit YAV

Also consider

- Convert between place values: up to hundred thousands D7G
- Identify place value names to hundred thousands J5M
- Place value review B5N

Lesson 1-3: Compare Whole Numbers

1. Compare numbers up to one million 6Y2

Also consider

- Missing digits in inequalities USN
- Order numbers up to one million 94E

Lesson 1-4: Round Whole Numbers

1. Rounding: up to hundred thousands place QV7

Also consider

- Rounding input/output tables CT2

Lesson 1-5: Construct Arguments

1. Compare numbers in tables EFV

Also consider

- Rounding puzzles XVJ
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Topic 2

Fluently Add and Subtract Multi-Digit Whole Numbers

Textbook section	IXL skills
Lesson 2-1: Finding Sums and Differences with Mental Math	<ol style="list-style-type: none">1. Add using properties D7B <p><i>Also consider</i></p> <ul style="list-style-type: none">• Properties of addition D9R• Add and subtract whole numbers up to three digits Q8M
Lesson 2-2: Mental Math: Estimate Sums and Differences	<ol style="list-style-type: none">1. Estimate sums: up to six digits DU52. Estimate differences: up to six digits 5TQ <p><i>Also consider</i></p> <ul style="list-style-type: none">• Estimate sums: word problems up to six digits 5F9• Estimate differences: word problems GWS
Lesson 2-3: Add Whole Numbers	<ol style="list-style-type: none">1. Add two numbers up to three digits DWQ2. Add two numbers up to three digits: word problems M8W
Lesson 2-4: Add Greater Numbers	<ol style="list-style-type: none">1. Add numbers up to six digits 26W2. Add two numbers up to six digits: word problems X8G3. Add three numbers up to six digits each KTH <p><i>Also consider</i></p> <ul style="list-style-type: none">• Addition: find the missing digits ERL
Lesson 2-5: Subtract Whole Numbers	<ol style="list-style-type: none">1. Subtract two numbers up to three digits FCP2. Subtract two numbers up to three digits: word problems 6SZ
Lesson 2-6: Subtract Greater Numbers	<ol style="list-style-type: none">1. Subtract numbers up to six digits TSJ2. Subtract numbers up to six digits: word problems WLN

Also consider

- Subtraction: find the missing digits YPD

Lesson 2-7: Subtract Across Zeros

1. Subtract across zeros LZZ

Lesson 2-8: Reasoning

1. Multi-step addition and subtraction word problems CZM
 2. Comparison word problems with addition and subtraction RJJ
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Topic 3

Use Strategies and Properties to Multiply by 1-Digit Numbers

Textbook section	IXL skills
Lesson 3-1: Multiply by Multiples of 10, 100, and 1,000	<ol style="list-style-type: none"> 1. Multiplication patterns over increasing place values: up to thousands W6B 2. Multiply by multiples of 10, 100, and 1,000 2RP
Lesson 3-2: Estimate Products	<ol style="list-style-type: none"> 1. Estimate products: multiply by 1-digit numbers WDG
Lesson 3-3: Use Arrays and Partial Products to Multiply	<ol style="list-style-type: none"> 1. Multiply 1-digit numbers by 2- or 3-digit numbers using partial products GUB <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply 1-digit numbers by teen numbers using grids 8UH
Lesson 3-4: Use Area Models and Partial Products to Multiply	<ol style="list-style-type: none"> 1. Multiply 1-digit numbers by 2-digit or 3-digit numbers: pick the model that matches NA7 2. Multiply 1-digit numbers by 2-digit or 3-digit numbers using area models SP2 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply 1-digit numbers by 2- or 3-digit numbers VR5 • Multiply 1-digit numbers by 2- or 3-digit numbers: word problems SSA
Lesson 3-5: More Use Area Models and Partial Products to Multiply	<ol style="list-style-type: none"> 1. Multiply 1-digit by 4-digit numbers using area models S5P <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply 1-digit numbers by 3-digit or 4-digit numbers using expanded form SEG • Multiply 1-digit by 4-digit numbers H7A • Multiply 1-digit by 4-digit numbers: word problems CJW

Lesson 3-6: Mental Math Strategies for Multiplication

1. Multiply using properties YR9
2. Use compensation to multiply 1-digit numbers by 2-digit numbers 5C8

Also consider

- Properties of multiplication B6N

Lesson 3-7: Choose a Strategy to Multiply

1. Multiply 1-digit numbers by 2-, 3-, or 4-digit numbers QKA
2. Multiply 1-digit numbers by 2-, 3-, or 4-digit numbers: word problems G7M

Lesson 3-8: Model with Math

Topic 4

Use Strategies and Properties to Multiply by 2-Digit Numbers

Textbook section	IXL skills
Lesson 4-1: Multiply Multiples of 10	1. Multiply two multiples of ten A6Y
Lesson 4-2: Use Models to Multiply 2-Digit Numbers by Multiples of 10	1. Multiply a two-digit number by a multiple of ten YJH
Lesson 4-3: Estimate: Use Rounding or Compatible Numbers	1. Estimate products of two-digit numbers NGV 2. Estimate products of two-digit numbers: word problems 9HH 3. Estimate products word problems: identify reasonable answers KLA
Lesson 4-4: Arrays and Partial Products	1. Multiply 2-digit numbers by 2-digit numbers using area models I ASZ
Lesson 4-5: Area Models and Partial Products	1. Multiply 2-digit numbers by 2-digit numbers using area models II 8K7 <i>Also consider</i> <ul style="list-style-type: none"> Box multiplication ERB
Lesson 4-6: Use Partial Products to Multiply by 2-Digit Numbers	1. Multiply 2-digit numbers by 2-digit numbers using partial products XLZ <i>Also consider</i> <ul style="list-style-type: none"> Multiply a 2-digit number by a 2-digit number MLC Multiply a 2-digit number by a 2-digit number: word problems GZG
Lesson 4-7: Make Sense and Persevere	

Topic 5

Use Strategies and Properties to Divide by 1-Digit Numbers

Textbook section	IXL skills
Lesson 5-1: Mental Math: Find Quotients	<ol style="list-style-type: none"> 1. Division patterns over increasing place values: up to thousands 7FH 2. Divide numbers ending in zeroes by 1-digit numbers M7J
Lesson 5-2: Mental Math: Estimate Quotients	<ol style="list-style-type: none"> 1. Estimate quotients using compatible numbers: 1-digit divisors CWE
Lesson 5-3: Mental Math: Estimate Quotients for Greater Dividends	<ol style="list-style-type: none"> 1. Estimate quotients MPG 2. Estimate quotients: word problems VC2
Lesson 5-4: Interpret Remainders	<ol style="list-style-type: none"> 1. Divide 2-digit numbers by 1-digit numbers: quotients up to 10 7BS 2. One-step word problems involving remainders PYQ
Lesson 5-5: Use Partial Quotients to Divide	<ol style="list-style-type: none"> 1. Divide 2-digit numbers by 1-digit numbers using partial quotients BTM <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Divide 2-digit numbers by 1-digit numbers using area models 7LG
Lesson 5-6: Use Partial Quotients to Divide: Greater Dividends	<ol style="list-style-type: none"> 1. Divide using partial quotients with remainders EGL <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Divide 3-digit numbers by 1-digit numbers using area models 6UL
Lesson 5-7: Use Sharing to Divide	<ol style="list-style-type: none"> 1. Write division sentences for arrays 8QG 2. Divide 2-digit numbers by 1-digit numbers using arrays M49
Lesson 5-8: Continue Sharing to Divide	<ol style="list-style-type: none"> 1. Divide 2- and 3-digit numbers by 1-digit numbers 5FE 2. Divide 2- and 3-digit numbers by 1-digit numbers: word problems JYD

Also consider

- Divide 2-digit numbers by 1-digit numbers: complete the table UFM

Lesson 5-9: Choose a Strategy to Divide

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

Lesson 5-10: Model with Math

1. Multi-step word problems involving remainders SLS

Topic 6

Use Operations with Whole Numbers to Solve Problems

Textbook section	IXL skills
Lesson 6-1: Solve Comparison Problems	<ol style="list-style-type: none"> 1. Compare numbers using multiplication GGE 2. Comparison word problems: addition or multiplication? YCW
Lesson 6-2: Continue to Solve Comparison Problems	<ol style="list-style-type: none"> 1. Compare numbers using multiplication: word problems QKB
Lesson 6-3: Model Multi-Step Problems	<ol style="list-style-type: none"> 1. Use strip diagrams to represent and solve multi-step word problems G8Z
Lesson 6-4: More Model Multi-Step Problems	<ol style="list-style-type: none"> 1. Multi-step word problems with strip diagrams CZQ
Lesson 6-5: Solve Multi-Step Problems	<ol style="list-style-type: none"> 1. Multi-step word problems I U58 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multi-step word problems: identify reasonable answers K6X • Word problems with extra or missing information X64
Lesson 6-6: Make Sense and Persevere	<ol style="list-style-type: none"> 1. Multi-step word problems II R8U

Topic 7

Factors and Multiples

Textbook section	IXL skills
Lesson 7-1: Understand Factors	1. Find a factor N6R
Lesson 7-2: Factors	1. Identify factors PWS <i>Also consider</i> <ul style="list-style-type: none">Choose numbers with a particular product U9N
Lesson 7-3: Repeated Reasoning	1. Find all the factor pairs of a number URL
Lesson 7-4: Prime and Composite Numbers	1. Prime and composite: up to 100 L9R
Lesson 7-5: Multiples	1. Choose the multiples of a given number up to 10 EFB

Topic 8

Extend Understanding of Fraction Equivalence and Ordering

Textbook section	IXL skills
Lesson 8-1: Equivalent Fractions: Area Models	1. Find equivalent fractions using area models <small>HYC</small>
Lesson 8-2: Equivalent Fractions: Number Lines	1. Graph equivalent fractions on number lines <small>WQL</small> 2. Identify equivalent fractions using number lines <small>CLW</small>
Lesson 8-3: Generate Equivalent Fractions: Multiplication	1. Equivalent fractions: find the missing numerator or denominator <small>7CY</small> 2. Patterns of equivalent fractions <small>7LH</small>
Lesson 8-4: Generate Equivalent Fractions: Division	1. Identify equivalent fractions <small>GSG</small>
Lesson 8-5: Use Benchmarks to Compare Fractions	1. Benchmark fractions <small>LUS</small> 2. Compare fractions using benchmarks <small>EHJ</small> <i>Also consider</i> • Compare fractions using benchmarks: find the missing numerator <small>UKZ</small>
Lesson 8-6: Compare Fractions	1. Graph and compare fractions using number lines <small>M8N</small> 2. Compare fractions <small>99U</small> <i>Also consider</i> • Compare fractions using models <small>7XF</small> • Graph and order fractions on number lines <small>7GK</small>
Lesson 8-7: Construct Arguments	1. Compare proper fractions in recipes <small>7C4</small>

Topic 9

Understand Addition and Subtraction of Fractions

Textbook section	IXL skills
Lesson 9-1: Model Addition of Fractions	<ol style="list-style-type: none"> 1. Add fractions with like denominators: pick the model EMQ 2. Add fractions with like denominators using strip models Z63 3. Add fractions with like denominators using number lines 6QH <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Add fractions with like denominators using area models Y5W
Lesson 9-2: Decompose Fractions	<ol style="list-style-type: none"> 1. Decompose fractions N2Z 2. Decompose fractions multiple ways UEW <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Identify mixed numbers UX6
Lesson 9-3: Add Fractions with Like Denominators	<ol style="list-style-type: none"> 1. Add fractions with like denominators PDU
Lesson 9-4: Model Subtraction of Fractions	<ol style="list-style-type: none"> 1. Subtract fractions with like denominators: pick the model PXZ 2. Subtract fractions with like denominators using strip models QAS 3. Subtract fractions with like denominators using number lines MJX <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Subtract fractions with like denominators using area models P99
Lesson 9-5: Subtract Fractions with Like Denominators	<ol style="list-style-type: none"> 1. Subtract fractions with like denominators AVF
Lesson 9-6: Add and Subtract Fractions with Like Denominators	<ol style="list-style-type: none"> 1. Add and subtract fractions with like denominators using number lines GAK 2. Add and subtract fractions with like denominators FXD

Lesson 9-7: Model Addition and Subtraction of Mixed Numbers

1. Add and subtract mixed numbers with like denominators I CSJ

Lesson 9-8: Add Mixed Numbers

1. Add mixed numbers AXT

Lesson 9-9: Subtract Mixed Numbers

1. Subtract mixed numbers SLQ

Also consider

- Add and subtract mixed numbers with like denominators II QRB
- Break apart fractions and mixed numbers to add or subtract S9V

Lesson 9-10: Model with Math

1. Add and subtract fractions with like denominators: word problems XBR
2. Add and subtract mixed numbers with like denominators: word problems 6KM
3. Add and subtract mixed numbers with like denominators in recipes YB5

Topic 10

Extend Multiplication Concepts to Fractions

Textbook section	IXL skills
<p>Lesson 10-1: Fractions as Multiplies of Unit Fractions</p>	<ol style="list-style-type: none"> 1. Multiply unit fractions by whole numbers using number lines XKJ 2. Multiples of unit fractions: find the missing numbers VYG 3. Multiply unit fractions by whole numbers EXQ <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply unit fractions by whole numbers using models 8J3 • Multiply unit fractions by whole numbers: word problems DSB
<p>Lesson 10-2: Multiply a Fraction by a Whole Number: Use Models</p>	<ol style="list-style-type: none"> 1. Multiply fractions by whole numbers using number lines Q7B 2. Multiply fractions by whole numbers using models Y5C 3. Multiply fractions by whole numbers using models: complete the equation CZ7
<p>Lesson 10-3: Multiply a Fraction by a Whole Number: Use Symbols</p>	<ol style="list-style-type: none"> 1. Multiply fractions by whole numbers JLH <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply fractions by whole numbers: sorting X48
<p>Lesson 10-4: Solve Time Problems</p>	<ol style="list-style-type: none"> 1. Convert units of time QDA 2. Convert mixed time units K2S 3. Add and subtract mixed time units VD2
<p>Lesson 10-5: Model with Math</p>	<ol style="list-style-type: none"> 1. Multiply fractions by whole numbers: word problems LX8 2. Multiply fractions and mixed numbers by whole numbers in recipes 7B3 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Write variable equations to represent word problems 5SJ

Topic 11

Represent and Interpret Data on Line Plots

Textbook section	IXL skills
Lesson 11-1: Read line plots	1. Interpret line plots G8K
Lesson 11-2: Create line plots	1. Create line plots with fractions G5S
Lesson 11-3: Use Line Plots to Solve Problems	1. Create and interpret line plots with fractions I 6JV
Lesson 11-4: Critique Reasoning	1. Create and interpret line plots with fractions II 4D9

Topic 12

Understand and Compare Decimals

Textbook section

IXL skills

Lesson 12-1: Fractions and Decimals

1. Model decimals and fractions TPV
2. Convert fractions and mixed numbers to decimals - denominators of 10 and 100 6P7

Also consider

- What decimal number is illustrated? B7E

Lesson 12-2: Fractions and Decimals on the Number Line

1. Graph decimals on number lines N93
2. Decimal number lines EWY
3. Graph fractions as decimals on number lines 2N9

Lesson 12-3: Compare Decimals

1. Compare decimals using models CV7
2. Compare decimal numbers DY5

Also consider

- Compare money amounts EAL
- Compare decimals on number lines T2W

Lesson 12-4: Add Fractions with Denominators of 10 or 100

1. Add fractions: denominators 10 and 100 9RJ

Also consider

- Identify fraction expressions with a particular sum: denominators of 10 and 100 TZH

Lesson 12-5: Solve Word Problems Involving Money

1. Add and subtract money amounts: word problems JMM
2. Find the change, price, or amount paid RTE

Also consider

- Price lists with addition and subtraction 92H

Lesson 12-6: Look For and Use Structure

1. Decimal number lines II K5N



Also consider

- Add and subtract money amounts: multi-step word problems UGK
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Topic 13

Measurement: Find Equivalence in Units of Measure

Textbook section	IXL skills
<p>Lesson 13-1: Equivalence with Customary Units of Length</p>	<p>1. Compare and convert customary units of length <small>M97</small></p> <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Conversion tables: customary units of length <small>T8A</small>
<p>Lesson 13-2: Equivalence with Customary Units of Capacity</p>	<p>1. Compare and convert customary units of capacity <small>WGQ</small></p> <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Conversion tables: customary units of capacity <small>WND</small>
<p>Lesson 13-3: Equivalence with Customary Units of Weight</p>	<p>1. Compare and convert customary units of weight <small>TVC</small></p> <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Conversion tables: customary units of weight <small>SVP</small> • Which customary unit is appropriate? <small>MKS</small>
<p>Lesson 13-4: Equivalence with Metric Units of Length</p>	<p>1. Convert metric units of length <small>Z5S</small></p> <p>2. Which metric unit of length is appropriate? <small>NWG</small></p> <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Conversion tables: metric units of length <small>STH</small>
<p>Lesson 13-5: Equivalence with Metric Units of Capacity and Mass</p>	<p>1. Convert metric units of mass and capacity <small>ZXS</small></p> <p>2. Which metric unit of volume is appropriate? <small>UJW</small></p> <p>3. Which metric unit of weight is appropriate? <small>4W9</small></p> <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Conversion tables: metric units of mass and capacity <small>WZY</small>



Lesson 13-6: Solve Perimeter and Area Problems

1. Find the missing side length of a rectangle UPZ
2. Find the missing side length of a rectangle: word problems HNX

Lesson 13-7: Precision

1. Multi-step measurement word problems A2E
 2. Measurement word problems with fractions UST
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Topic 14

Algebra: Generate and Analyze Patterns

Textbook section

IXL skills

Lesson 14-1: Number Sequences

1. Use a rule to complete an addition or subtraction pattern DWF

Also consider

- What is true about the given pattern? C9H
- What is true about the pattern made by the rule? 35J

Lesson 14-2: Patterns: Number Rules

1. Use a rule to complete a multiplication or division input/output table UZ6

Also consider

- Input/output tables with addition, subtraction, multiplication, and division HDS

Lesson 14-3: Patterns: Repeating Shapes

1. Find the next shape in a pattern KG8
2. Complete a repeating pattern FNW

Also consider

- Make a repeating pattern V68

Lesson 14-4: Look For and Use Structure

1. Shape patterns NVV

Topic 15

Geometric Measurement: Understand Concepts of Angles and Angle Measurement

Textbook section	IXL skills
Lesson 15-1: Lines, Rays, and Angles	<ol style="list-style-type: none">1. Points, lines, line segments, rays, and angles 9MK2. Acute, right, obtuse, and straight angles R5K
Lesson 15-2: Understand Angles and Unit Angles	<ol style="list-style-type: none">1. Angles as fractions of a circle N722. Use fractions to find the measure of an angle Q68
Lesson 15-3: Measure with Unit Angles	<ol style="list-style-type: none">1. Measure angles on a circle RK82. Estimate angle measurements LUJ
Lesson 15-4: Measure and Draw Angles	<ol style="list-style-type: none">1. Measure angles with a protractor NCN2. Draw angles with a protractor R9K
Lesson 15-5: Add and Subtract Angle Measures	<ol style="list-style-type: none">1. Adjacent angles VJY2. Angle measures: word problems YUA
Lesson 15-6: Use Appropriate Tools	<ol style="list-style-type: none">1. Choose the appropriate measuring tool JBL

Topic 16

Lines, Angles, and Shapes

Textbook section	IXL skills
Lesson 16-1: Lines	<ol style="list-style-type: none">1. Parallel, perpendicular, and intersecting lines JL7 <p><i>Also consider</i></p> <ul style="list-style-type: none">• Identify parallel, perpendicular, and intersecting lines DSU
Lesson 16-2: Classify Triangles	<ol style="list-style-type: none">1. Acute, obtuse, and right triangles 7QK2. Scalene, isosceles, and equilateral triangles 5UV3. Classify triangles U59
Lesson 16-3: Classify Quadrilaterals	<ol style="list-style-type: none">1. Classify quadrilaterals A6V2. Pick all the names for a quadrilateral 6CT <p><i>Also consider</i></p> <ul style="list-style-type: none">• Sides and angles of quadrilaterals PTK• Parallel sides in quadrilaterals 58M
Lesson 16-4: Line Symmetry	<ol style="list-style-type: none">1. Identify lines of symmetry 9FD2. Count lines of symmetry MWS
Lesson 16-5: Draw Shapes with Line Symmetry	<ol style="list-style-type: none">1. Draw lines of symmetry SQF
Lesson 16-6: Critique Reasoning	<ol style="list-style-type: none">1. Describe relationships among quadrilaterals C982. Relationship between area and perimeter SKK

Topic 17

Step-Up to Grade 5

Textbook section	IXL skills
Lesson 17-1: Understand Decimal Place Value	<ol style="list-style-type: none"> Convert decimals between standard and expanded form 5QD Equivalent decimals BZ2
Lesson 17-2: Compare Decimals	<ol style="list-style-type: none"> Compare and order decimals K2F
Lesson 17-3: Use Models to Add and Subtract Decimals	<ol style="list-style-type: none"> Add decimals using blocks 6TF Add and subtract decimals 9SL
Lesson 17-4: Estimate the Product of a Decimal and a Whole Number	<ol style="list-style-type: none"> Estimate products of whole numbers and decimals EDG
Lesson 17-5: Find Common Denominators	<ol style="list-style-type: none"> Least common denominator 72R
Lesson 17-6: Add Fractions with Unlike Denominators	<ol style="list-style-type: none"> Add fractions with unlike denominators using models 6PM Add fractions with unlike denominators 7BJ
Lesson 17-7: Subtract Fractions with Unlike Denominators	<ol style="list-style-type: none"> Subtract fractions with unlike denominators using models D7F Subtract fractions with unlike denominators KKS
Lesson 17-8: Multiply a Whole Number by a Fraction	<ol style="list-style-type: none"> Multiply fractions by whole numbers II NJE
Lesson 17-9: Divide Whole Numbers by Unit Fractions	<ol style="list-style-type: none"> Divide whole numbers by unit fractions using area models QXJ Divide whole numbers by unit fractions EY2
Lesson 17-10: Model Volume	<ol style="list-style-type: none"> Volume YD2