IXL Skill Alignment

4th alignment for enVisionMATH Common Core Edition

Topic 1
Multiplication and Division: Meaning and Facts

Textbook section	IXL skills	
1 - 1: Meanings of Multiplication		
1 - 2: Patterns for Facts	**D.1**	Multiplication facts to 12 >>
	See also:	
	D.4	Choose the multiples of a given number up to 12 >>
1 - 3: Multiplication Properties	**D.1**	Multiplication facts to 12 >>
1 - 4: 3, 4, 6, 7, and 8 as Factors	**D.1**	Multiplication facts to 12 >>
	D.10	Properties of multiplication >>
	D.11	Distributive property: find the missing factor >>
	See also:	
	D.29	Inequalities with multiplication >>
1 - 5: Look for a Pattern	**B.8**	Addition patterns over increasing place values >>
	See also:	
	L.7	Use a rule to complete a number pattern >>
	L.8	Number patterns: word problems >>
	L.9	Number patterns: mixed review >>
1 - 6: Meanings of Division	**E.2**	Division facts to 12: word problems >>
1 - 7: Relating Multiplication and Division	**D.2**	Multiplication facts up to 12: find the missing factor >>
	See also:	
	E.12	Choose numbers with a particular quotient >>
1 - 8: Special Quotients	**E.3**	Properties of division >>

1 - 9: Using Multiplication Facts to Find Division Facts

1 - 10: Draw a Picture and Write an Equation

Topic 2
Generate and Analyze Patterns

Textbook section	IXL skills	
2 - 1: Repeating Patterns		
2 - 2: Number Sequences		
2 - 3: Extending Tables	**H.1**	Input/output tables with addition, subtraction, multiplication, and division >>
2 - 4: Writing Rules for Situations	**H.1**	Input/output tables with addition, subtraction, multiplication, and division >>
2 - 5: Geometric Patterns	**H.1**	Input/output tables with addition, subtraction, multiplication, and division >>
2 - 6: Act It Out and Use Reasoning		

Topic 3
Place Value

Textbook section	IXL skills	
3 - 1: Representing Numbers	**A.2**	Convert between standard and expanded form >>
	A.10	Write word names for numbers up to one million >>
3 - 2: Place Value Relationships	**A.4**	Convert between place values >>
3 - 3: Comparing Numbers		
3 - 4: Ordering Numbers		
3 - 5: Rounding Whole Numbers	**A.16**	Rounding >>
3 - 6: Make an Organized List	**V.12**	Combinations >>

Topic 4
Addition and Subtraction of Whole Numbers

Textbook section	IXL skills	
4 - 1: Using Mental Math to Add and Subtract		
4 - 2: Estimating Sums and Differences of Whole Numbers	**B.10**	Estimate sums >>
	B.11	Estimate sums: word problems >>
	C.8	Estimate differences >>
	C.9	Estimate differences: word problems >>
4 - 3: Adding Whole Numbers	**B.2**	Add numbers up to millions >>
	B.4	Add numbers up to millions: word problems >>
		See also:
	B.7	Add 3 or more numbers up to millions >>
4 - 4: Subtracting Whole Numbers	**C.2**	Subtract numbers up to millions >>
	C.4	Subtract numbers up to millions: word problems >>
4 - 5: Subtracting Across Zeros	**C.2**	Subtract numbers up to millions >>
	C.4	Subtract numbers up to millions: word problems >>
4 - 6: Draw a Picture and Write an Equation	**G.2**	Write variable expressions: word problems >>
	G.4	Write variable equations to represent word problems >>

Topic 5

Number Sense: Multiplying by 1-Digit Numbers

Textbook section	IXL skills	
5 - 1: Arrays and Multiplying by 10 and 100		
5 - 2: Multiplying by Multiples of 10 and 100	**D.9**	Multiplication patterns over increasing place values >>
5 - 3: Breaking Apart to Multiply	**D.11**	Distributive property: find the missing factor >>
	D.12	Multiply using the distributive property >>
5 - 4: Using Mental Math to Multiply		
5 - 5: Using Rounding to Estimate	**D.13**	Estimate products - multiply by 1-digit numbers >>
5 - 6: Reasonableness		

Topic 6
Developing Fluency: Multiplying by 1-Digit Numbers

Textbook section	IXL skills	
6 - 1: Arrays and Using an Expanded Algorithm	D.1	Multiplication facts to 12 >>
	D.6	Multiply 1-digit numbers by 2-digit numbers >>
6 - 2: Connecting the Expanded and Standard Algorithms	D.6	Multiply 1-digit numbers by 2-digit numbers >>
6 - 3: Multiplying 2-Digit by 1-Digit Numbers	D.6	Multiply 1-digit numbers by 2-digit numbers >>
6 - 4: Multiplying 3- and 4-Digit Numbers by 1-Digit Numbers	D.7	Multiply 1-digit numbers by 3-digit or 4-digit numbers >>
6 - 5: Multiplying by 1-Digit Numbers	D.6	Multiply 1-digit numbers by 2-digit numbers >>
	D.7	Multiply 1-digit numbers by 3-digit or 4-digit numbers >>
6 - 6: Missing or Extra Information	F.4	Word problems with extra or missing information >>

Topic 7

Number Sense: Multiplying by 2-Digit Numbers

Textbook section	IXL skills	
7 - 1: Arrays and Multiplying 2-Digit Numbers by Multiples of 10		
7 - 2: Using Mental Math to Multiply 2-Digit Numbers		
7 - 3: Using Rounding to Estimate	**D.14**	Estimate products - multiply by larger numbers >>
	D.15	Estimate products: word problems >>
7 - 4: Using Compatible Numbers to Estimate	**D.14**	Estimate products - multiply by larger numbers >>
	D.15	Estimate products: word problems >>
7 - 5: Multiple-Step Problems	**F.6**	Multi-step word problems >>

Topic 8
Developing Fluency: Multiplying by 2-Digit Numbers

Textbook section	IXL skills	
8 - 1: Arrays and Multiplying 2-Digit Numbers	D.16	Box multiplication >>
	D.19	Multiply a 2-digit number by a 2-digit number >>
	D.20	Multiply a 2-digit number by a 2-digit number: word problems >>
8 - 2: Arrays and an Expanded Algorithm	D.19	Multiply a 2-digit number by a 2-digit number >>
	D.20	Multiply a 2-digit number by a 2-digit number: word problems >>
	See also:	
	D.18	Multiply a 2-digit number by a 2-digit number: complete the missing steps >>
8 - 3: Multiplying 2-Digit Numbers by Multiples of 10		
8 - 4: Multiplying 2-Digit by 2-Digit Numbers	D.18	Multiply a 2-digit number by a 2-digit number: complete the missing steps >>
	D.19	Multiply a 2-digit number by a 2-digit number >>
	D.20	Multiply a 2-digit number by a 2-digit number: word problems >>
8 - 5: Two-Question Problems	F.6	Multi-step word problems >>

Topic 9
Number Sense: Dividing by 1-Digit Divisors

Textbook section	IXL skills	
9 - 1: Using Mental Math to Divide	E.1	Division facts to 12 >>
	E.2	Division facts to 12: word problems >>
	E.13	Division patterns over increasing place values >>
9 - 2: Estimating Quotients		
9 - 3: Estimating Quotients for Greater Dividends	E.15	Divide by 1-digit numbers: estimate quotients >>
9 - 4: Dividing with Remainders	E.4	Divide 2-digit numbers by 1-digit numbers >>
	E.5	Divide 2-digit numbers by 1-digit numbers: word problems >>
9 - 5: Multiplication and Division Stories	E.5	Divide 2-digit numbers by 1-digit numbers: word problems >>
9 - 6: Draw a Picture and Write an Equation	G.4	Write variable equations to represent word problems >>

Topic 10
Developing Fluency: Dividing by 1-Digit Divisors

Textbook section	IXL skills	
10 - 1: Using Objects to Divide: Division as Repeated Subtraction	**E.1**	Division facts to 12 >>
	E.2	Division facts to 12: word problems >>
10 - 2: Division as Repeated Subtraction		
10 - 3: Using Objects to Divide: Division as Sharing	**E.4**	Divide 2-digit numbers by 1-digit numbers >>
	E.5	Divide 2-digit numbers by 1-digit numbers: word problems >>
10 - 4: Dividing 2-Digit by 1-Digit Numbers	**E.4**	Divide 2-digit numbers by 1-digit numbers >>
	E.5	Divide 2-digit numbers by 1-digit numbers: word problems >>
	E.7	Divide 2-digit numbers by 1-digit numbers: interpret remainders >>
10 - 5: Dividing 3-Digit by 1-Digit Numbers	**E.8**	Divide larger numbers by 1-digit numbers >>
	E.9	Divide larger numbers by 1-digit numbers: word problems >>
10 - 6: Deciding Where to Start Dividing	**E.8**	Divide larger numbers by 1-digit numbers >>
	E.9	Divide larger numbers by 1-digit numbers: word problems >>
10 - 7: Dividing 4-Digit Numbers by 1-Digit Numbers	**E.8**	Divide larger numbers by 1-digit numbers >>
	E.9	Divide larger numbers by 1-digit numbers: word problems >>
10 - 8: Multiple-Step Problems	**F.6**	Multi-step word problems >>

Topic 11
Fraction Equivalence and Ordering

Textbook section	IXL skills	
11 - 1: Factors	**D.2**	Multiplication facts up to 12: find the missing factor >>
	D.5	Identify factors >>
11 - 2: Prime and Composite Factors	**A.14**	Prime and composite - up to 20 >>
11 - 3: Multiples	**D.4**	Choose the multiples of a given number up to 12 >>
11 - 4: Equivalent Fractions	**P.5**	Find equivalent fractions using area models >>
	P.7	Equivalent fractions >>
	See also:	
	P.9	Patterns of equivalent fractions >>
11 - 5: Number Lines and Equivalent Fractions	**P.6**	Graph equivalent fractions on number lines >>
11 - 6: Comparing Fractions	**P.11**	Compare fractions with like numerators or denominators using models >>
	P.12	Graph and compare fractions with like numerators or denominators on number lines >>
	P.13	Compare fractions with like numerators or denominators >>
	P.14	Compare fractions using models >>
	P.16	Compare fractions using benchmarks >>
	P.17	Compare fractions >>
11 - 7: Ordering Fractions	**P.19**	Graph and order fractions on number lines >>
	P.20	Order fractions with like numerators or denominators >>
	P.21	Order fractions >>
11 - 8: Writing to Explain		

IXL

Topic 12
Adding and Subtracting Fractions and Mixed Numbers with Like Denominators

Textbook section	IXL skills	
12 - 1: Modeling Addition of Fractions		
12 - 2: Adding Fractions with Like Denominators		
12 - 3: Modeling Subtraction of Fractions		
12 - 4: Subtraction Fractions with Like Denominators	**Q.9**	Add and subtract fractions with like denominators >>
	Q.11	Add and subtract fractions with like denominators: word problems >>
12 - 5: Adding and Subtraction on the Number Line	**Q.4**	Add fractions with like denominators using number lines >>
	Q.6	Subtract fractions with like denominators using number lines >>
	Q.9	Add and subtract fractions with like denominators >>
	Q.11	Add and subtract fractions with like denominators: word problems >>
12 - 6: Improper Fractions and Mixed Numbers	**P.4**	Mixed number review >>
	P.23	Convert between improper fractions and mixed numbers >>
12 - 7: Modeling Addition and Subtraction of Mixed Numbers	**Q.14**	Add and subtract mixed numbers with like denominators >>
12 - 8: Addition of Mixed Numbers		
12 - 9: Subtraction of Mixed Numbers		
12 - 10: Decomposing and Composing Fractions	**Q.1**	Decompose fractions into unit fractions >>
	Q.2	Decompose fractions >>
	See also:	
	Q.3	Decompose fractions multiple ways >>

12 - 11: Draw a Picture and Write an Equation

Topic 13
Extending Fraction Concepts

Textbook section	IXL skills	
13 - 1: Fractions as Multiple of Unit Fractions: Using Models	**S.1**	Multiply unit fractions by whole numbers using number lines >>
13 - 2: Multiplying a Fraction by a Whole Number: Using Models	**S.7**	Multiply fractions by whole numbers using number lines >>
	S.13	Multiply fractions and mixed numbers by whole numbers in recipes >>
13 - 3: Multiplying a Fraction by a Whole Number: Using Symbols	**S.5**	Multiply unit fractions by whole numbers >>
	S.6	Multiply unit fractions by whole numbers: word problems >>
	S.10	Multiply fractions by whole numbers >>
	S.12	Multiply fractions by whole numbers: word problems >>
	S.13	Multiply fractions and mixed numbers by whole numbers in recipes >>
13 - 4: Fractions and Decimals	**T.1**	What decimal number is illustrated? >>
	See also:	
	T.11	Convert decimals to fractions and mixed numbers >>
13 - 5: Fractions and Decimals on a Number Line	**T.6**	Graph decimals on number lines >>
	T.7	Decimal number lines >>
	T.8	Graph fractions as decimals on number lines >>
13 - 6: Equivalent Fractions and Decimals	**T.10**	Convert fractions and mixed numbers to decimals >>
	T.11	Convert decimals to fractions and mixed numbers >>
	See also:	
	T.8	Graph fractions as decimals on number lines >>
	T.19	Compare decimals and fractions >>

Topic 14
Measurement Units and Conversions

Textbook section	IXL skills	
14 - 1: Using Customary Units of Length		
14 - 2: Customary Units of Capacity		
14 - 3: Units of Weight	**N.2**	Which customary unit is appropriate? >>
14 - 4: Changing Customary Units	**N.3**	Compare and convert customary units of length >>
	N.4	Compare and convert customary units of weight >>
	N.5	Compare and convert customary units of volume >>
	N.6	Compare and convert customary units >>
	N.8	Compare customary units by multiplying >>
	See also:	
	N.7	Conversion tables - customary units >>
14 - 5: Writing to Explain		
14 - 6: Using Metric Units of Length		
14 - 7: Metric Units of Capacity		
14 - 8: Units of Mass	**N.11**	Which metric unit is appropriate? >>
14 - 9: Changing Metric Units	**N.12**	Compare and convert metric units of length >>
	N.13	Compare and convert metric units of weight >>
	N.14	Compare and convert metric units of volume >>
	N.15	Compare and convert metric units >>
	See also:	
	N.16	Conversion tables - metric units >>

Topic 15
Solving Measurement Problems

Textbook section	IXL skills	
15 - 1: Solving Perimeter and Area Problems	BB.1	Perimeter >>
	BB.10	Relationship between area and perimeter >>
	BB.14	Use area and perimeter to determine cost >>
15 - 2: Solving Measurement Problems		
15 - 3: Solving Problems Involving Money	M.6	Making change >>
15 - 4: Solving Problems Involving Line Plots	J.6	Interpret line plots >>
	J.7	Create line plots >>
15 - 5: Solve a Simpler Problem and Make a Table		

Topic 16
Lines, Angles and Shapes

Textbook section	IXL skills	
16 - 1: Points, Lines and Planes	**W.5**	Parallel, perpendicular, and intersecting lines >>
16 - 2: Line Segments, Rays, and Angles	**W.4**	Lines, line segments, and rays >>
	Z.1	Acute, right, obtuse, and straight angles >>
16 - 3: Understanding Angles and Unit Angles	**Z.2**	Angles of 90, 180, 270, and 360 degrees >>
16 - 4: Measuring with Unit Angles		
16 - 5: Measuring Angles	**Z.3**	Measure angles with a protractor >>
		See also:
	Z.4	Estimate angle measurements >>
16 - 6: Adding and Subtracting Angle Measures	**Z.5**	Adjacent angles >>
16 - 7: Polygons	**W.3**	Number of sides in polygons >>
	X.4	Parallel sides in quadrilaterals >>
16 - 8: Triangles	**X.1**	Acute, obtuse, and right triangles >>
	X.2	Scalene, isosceles, and equilateral triangles >>
	X.3	Classify triangles >>
16 - 9: Quadrilaterals	**X.9**	Classify quadrilaterals >>
16 - 10: Line Symmetry	**Y.1**	Identify lines of symmetry >>
16 - 11: Make and Test Generalizations		