



IXL Skill Alignment

Grade 5 Math alignment for EngageNY Common Core Curriculum

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Module 1

Place Value and Decimal Fractions

Topics	IXL skills
A: Multiplicative Patterns on the Place Value Chart	<p>I.2 Multiply a decimal by a power of ten >></p> <p>Y.8 Compare and convert metric units of length >></p> <p><i>See also:</i></p> <p>G.4 Place values in decimal numbers >></p> <p>J.1 Divide by powers of ten >></p>
B: Decimal Fractions and Place Value Patterns	<p>G.5 Convert decimals between standard and expanded form >></p> <p><i>See also:</i></p> <p>G.3 Understanding decimals expressed in words >></p> <p>G.4 Place values in decimal numbers >></p> <p>G.10 Compare decimal numbers >></p> <p>G.11 Put decimal numbers in order >></p>
C: Place Value and Rounding Decimal Fractions	
D: Adding and Subtracting Decimals	<p>H.1 Add decimal numbers >></p> <p>H.2 Subtract decimal numbers >></p> <p>H.3 Add and subtract decimal numbers >></p> <p>H.4 Add and subtract decimals: word problems >></p> <p><i>See also:</i></p> <p>B.3 Add and subtract money amounts >></p> <p>B.4 Add and subtract money: word problems >></p>
E: Multiplying Decimals	Coming soon!

F: Dividing Decimals**B.4** Add and subtract money: word problems >>**H.4** Add and subtract decimals: word problems >>**R.1** Price lists >>*See also:***O.6** Add, subtract, multiply, and divide decimals: word problems >>

Module 2

Multi-Digit Whole Number and Decimal Fraction Operations

Topics	IXL skills
A: Mental Strategies for Multi-Digit Whole Number Multiplication	C.3 Multiplication patterns over increasing place values >>
	C.4 Multiply numbers ending in zeroes >>
	C.5 Multiply numbers ending in zeroes: word problems >>
	C.8 Estimate products >>
	C.9 Estimate products: word problems >>
B: The Standard Algorithm for Multi-Digit Whole Number Multiplication	C.13 Multiply 2-digit numbers by 2-digit numbers >>
	C.14 Multiply 2-digit numbers by 3-digit numbers >>
	C.18 Multiply by 3-digit numbers >>
	O.3 Write numerical expressions >>
	<i>See also:</i>
	C.15 Multiply 2-digit numbers by larger numbers >>
	C.16 Multiply by 2-digit numbers: word problems >>
C: Decimal Multi-Digit Multiplication	I.1 Estimate products of decimals >>
	I.5 Multiply decimals and whole numbers: word problems >>
	I.6 Multiply money amounts: word problems >>

D: Measurement Word Problems with Whole Number and Decimal Multiplication

- Y.4** Compare and convert customary units of volume >>
- Y.8** Compare and convert metric units of length >>
- Y.9** Compare and convert metric units of weight >>
- Y.10** Compare and convert metric units of volume >>
- Y.11** Compare and convert metric units >>

See also:

- Y.2** Compare and convert customary units of length >>
- Y.3** Compare and convert customary units of weight >>
- Y.5** Compare and convert customary units >>
- Y.13** Compare customary units by multiplying >>
- X.1** Convert time units >>

E: Mental Strategies for Multi-Digit Whole Number Division

- D.6** Estimate quotients: word problems >>
- D.7** Division patterns over increasing place values >>
- D.8** Divide numbers ending in zeroes >>
- D.9** Divide numbers ending in zeroes: word problems >>
- D.15** Estimate quotients >>

F: Partial Quotients and Multi-Digit Whole Number Division

- D.10** Divide 2-digit and 3-digit numbers by 2-digit numbers >>
- D.11** Divide 2-digit and 3-digit numbers by 2-digit numbers: word problems >>
- D.12** Divide larger numbers by 2-digit numbers >>
- D.13** Divide larger numbers by 2-digit numbers: word problems >>

G: Partial Quotients and Multi-Digit Decimal Division

D.14 Divide money amounts: word problems >>

J.2 Decimal division patterns over increasing place values >>

J.3 Division with decimal quotients >>

J.5 Division with decimal quotients: word problems >>

H: Measurement Word Problems with Multi-Digit Division

D.11 Divide 2-digit and 3-digit numbers by 2-digit numbers: word problems >>

D.13 Divide larger numbers by 2-digit numbers: word problems >>

Module 3

Addition and Subtraction of Fractions

Topics	IXL skills
A: Equivalent Fractions	L.1 Decompose fractions multiple ways >>
	M.1 Multiply unit fractions by whole numbers using number lines >>
	M.6 Multiply fractions by whole numbers using number lines >>
	<i>See also:</i>
	L.2 Add and subtract fractions with like denominators using number lines >>
	L.3 Add and subtract fractions with like denominators >>
	M.3 Multiples of fractions >>
	M.8 Multiply fractions by whole numbers II >>
	M.10 Multiply fractions by whole numbers: word problems >>
	<hr/>
B: Making Like Units Pictorially	L.8 Add fractions with unlike denominators >>
	L.10 Subtract fractions with unlike denominators >>
	L.11 Add and subtract fractions with unlike denominators: word problems >>
	<i>See also:</i>
	L.6 Add fractions with unlike denominators using models >>
	L.9 Subtract fractions with unlike denominators using models >>
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C: Making Like Units Numerically

- L.8** Add fractions with unlike denominators >>
- L.10** Subtract fractions with unlike denominators >>
- L.11** Add and subtract fractions with unlike denominators: word problems >>
- L.12** Add 3 or more fractions with unlike denominators >>
- L.13** Add 3 or more fractions: word problems >>
- L.18** Add mixed numbers with unlike denominators >>
- L.19** Subtract mixed numbers with unlike denominators >>
- L.20** Add and subtract mixed numbers: word problems >>
- L.21** Add and subtract fractions in recipes >>

D: Further Applications

- L.14** Compare sums and differences of unit fractions >>
- L.15** Complete addition and subtraction sentences with fractions >>
- L.16** Inequalities with addition and subtraction of fractions >>
- L.22** Complete addition and subtraction sentences with mixed numbers >>
- L.23** Inequalities with addition and subtraction of mixed numbers >>

See also:

- K.8** Compare fractions using benchmarks >>

Module 4

Multiplication and Division of Fractions and Decimal Fractions

Topics	IXL skills
A: Line Plots of Fraction Measurements	V.12 Create and interpret line plots with fractions >>
B: Fractions as Division	K.5 Convert between improper fractions and mixed numbers >>
C: Multiplication of a Whole Number by a Fraction	M.5 Multiply fractions by whole numbers I >> M.8 Multiply fractions by whole numbers II >> M.10 Multiply fractions by whole numbers: word problems >>
D: Fraction Expressions and Word Problems	L.11 Add and subtract fractions with unlike denominators: word problems >> M.10 Multiply fractions by whole numbers: word problems >> O.8 Add, subtract, multiply, and divide fractions and mixed numbers: word problems >>
E: Multiplication of a Fraction by a Fraction	I.8 Multiply two decimals using grids >> I.9 Multiply two decimals >> M.12 Multiply two unit fractions using models >> M.13 Multiply two fractions using models: fill in the missing factor >> M.14 Multiply two fractions using models >> M.15 Multiply two fractions >> M.16 Multiply two fractions: word problems >> M.23 Multiply a mixed number by a whole number >> M.24 Multiply a mixed number by a fraction >> M.28 Multiply fractions and mixed numbers in recipes >>

F: Multiplication with Fractions and Decimals as Scaling and Word Problems

- G.12** Convert fractions to decimals >>
- I.5** Multiply decimals and whole numbers: word problems >>
- I.6** Multiply money amounts: word problems >>
- M.10** Multiply fractions by whole numbers: word problems >>
- M.16** Multiply two fractions: word problems >>
- M.17** Scaling whole numbers by fractions >>
- M.18** Scaling fractions by fractions >>

G: Division of Fractions and Decimal Fractions

- N.1** Divide unit fractions by whole numbers >>
- N.2** Divide whole numbers by unit fractions >>
- N.3** Divide whole numbers and unit fractions >>
- N.6** Divide unit fractions by whole numbers: word problems >>
- N.7** Divide whole numbers by unit fractions using models >>

H: Interpretation of Numerical Expressions

- N.6** Divide unit fractions by whole numbers: word problems >>

Module 5

Addition and Multiplication with Volume and Area

Topics	IXL skills
A: Concepts of Volume	Z.23 Volume of rectangular prisms made of unit cubes >>
	Z.24 Volume of irregular figures made of unit cubes >>
B: Volume and the Operations of Multiplication and Addition	Z.23 Volume of rectangular prisms made of unit cubes >>
	Z.25 Volume of cubes and rectangular prisms >>
C: Area of Rectangular Figures with Fractional Side Lengths	M.15 Multiply two fractions >>
	M.23 Multiply a mixed number by a whole number >>
	M.24 Multiply a mixed number by a fraction >>
	M.25 Multiply two mixed numbers >>
	Z.16 Area of squares and rectangles >>
	Z.20 Area between two rectangles >>
	<i>See also:</i> Z.19 Area of compound figures >> Z.22 Area and perimeter: word problems >>
D: Drawing, Analysis, and Classification of Two-Dimensional Shapes	Z.7 Classify quadrilaterals >>
	Z.13 Measure angles with a protractor >>

Module 6

Problem Solving with the Coordinate Plane

Topics	IXL skills
A: Coordinate Systems	<p>G.8 Decimal number lines >></p> <p>T.1 Coordinate graphs review - whole numbers only >></p> <p>T.4 Coordinate graphs as maps >></p> <p>Z.31 Parallel, perpendicular, intersecting >></p> <p><i>See also:</i></p> <p>G.9 Compare decimals on number lines >></p> <p>K.7 Graph and compare fractions on number lines >></p> <p>T.5 Relative coordinates: follow directions >></p>
B: Patterns in the Coordinate Plane and Graphing Number Patterns from Rules	<p>C.22 Multiplication input/output tables >></p> <p>C.23 Multiplication input/output tables: find the rule >></p> <p>M.11 Multiply fractions by whole numbers: input/output tables >></p> <p>U.9 Complete a table from a graph >></p> <p><i>See also:</i></p> <p>U.10 Graph a two-variable relationship >></p>
C: Drawing Figures in the Coordinate Plane	<p>Z.28 Lines of symmetry >></p> <p>Z.31 Parallel, perpendicular, intersecting >></p>
D: Problem Solving in the Coordinate Plane	<p>V.2 Interpret line graphs >></p> <p>V.3 Create line graphs >></p>

E: Multi-Step Word Problems

- O.3** Write numerical expressions >>
- O.4** Perform multiple operations with whole numbers >>
- P.1** Multi-step word problems >>
- P.2** Word problems with extra or missing information >>
- P.3** Guess-and-check problems >>

See also:

- P.4** Find the order >>
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F: The Years In Review: A Reflection on *A Story of Units*

- B.3** Add and subtract money amounts >>
- C.3** Multiplication patterns over increasing place values >>
- C.4** Multiply numbers ending in zeroes >>
- C.13** Multiply 2-digit numbers by 2-digit numbers >>
- C.14** Multiply 2-digit numbers by 3-digit numbers >>
- D.10** Divide 2-digit and 3-digit numbers by 2-digit numbers >>
- H.1** Add decimal numbers >>
- H.2** Subtract decimal numbers >>
- I.9** Multiply two decimals >>
- K.5** Convert between improper fractions and mixed numbers >>
- M.5** Multiply fractions by whole numbers I >>
- M.8** Multiply fractions by whole numbers II >>
- M.15** Multiply two fractions >>
- N.1** Divide unit fractions by whole numbers >>
- N.2** Divide whole numbers by unit fractions >>
- Z.7** Classify quadrilaterals >>
- Z.12** Types of angles >>
- Z.13** Measure angles with a protractor >>
- Z.23** Volume of rectangular prisms made of unit cubes >>
- Z.25** Volume of cubes and rectangular prisms >>
- Z.31** Parallel, perpendicular, intersecting >>

See also:

- G.10** Compare decimal numbers >>
- K.6** Least common denominator >>
- Z.1** Identify 2-dimensional and 3-dimensional shapes >>
- Z.6** Which figure is being described? >>
- Z.9** Count and compare sides, edges, faces, and vertices >>