



# IXL Skill Alignment

5th alignment for EngageNY Common Core Curriculum

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# Module 1

## Place Value and Decimal Fractions

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

**S.5** Price lists >>

*See also:*

**O.6** Add, subtract, multiply, and divide decimals: word problems >>

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## Module 2

### Multi-Digit Whole Number and Decimal Fraction Operations

Textbook section	IXL skills
<b>Topic A:</b> Mental Strategies for Multi-Digit Whole Number Multiplication	<b>C.3</b> Multiplication patterns over increasing place values >>
	<b>C.4</b> Multiply numbers ending in zeroes >>
	<b>C.5</b> Multiply numbers ending in zeroes: word problems >>
	<b>C.8</b> Estimate products >>
	<b>C.9</b> Estimate products: word problems >>
<b>Topic B:</b> The Standard Algorithm for Multi-Digit Whole Number Multiplication	<b>C.13</b> Multiply 2-digit numbers by 2-digit numbers >>
	<b>C.14</b> Multiply 2-digit numbers by 3-digit numbers >>
	<b>C.18</b> Multiply by 3-digit numbers >>
	<b>O.3</b> Write numerical expressions >>
	<i>See also:</i>
	<b>C.15</b> Multiply 2-digit numbers by larger numbers >>
	<b>C.16</b> Multiply by 2-digit numbers: word problems >>
<b>Topic C:</b> Decimal Multi-Digit Multiplication	<b>I.1</b> Estimate products of decimals >>
	<b>I.5</b> Multiply decimals and whole numbers: word problems >>
	<b>S.3</b> Multiply money amounts: word problems >>
<b>Topic D:</b> Measurement Word Problems with Whole Number and Decimal Multiplication	<b>Z.4</b> Compare and convert customary units of volume >>
	<b>Z.8</b> Compare and convert metric units of length >>
	<b>Z.9</b> Compare and convert metric units of weight >>
	<b>Z.10</b> Compare and convert metric units of volume >>
	<b>Z.11</b> Compare and convert metric units >>

*See also:*

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

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**Topic E:** Mental Strategies for Multi-Digit Whole Number Division

- D.6** Division patterns over increasing place values >>
- D.7** Divide numbers ending in zeroes >>
- D.8** Divide numbers ending in zeroes: word problems >>
- D.9** Estimate quotients >>
- D.10** Estimate quotients: word problems >>

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**Topic F:** Partial Quotients and Multi-Digit Whole Number Division

- D.11** Divide 2-digit and 3-digit numbers by 2-digit numbers >>
- D.12** Divide 2-digit and 3-digit numbers by 2-digit numbers: word problems >>
- D.13** Divide larger numbers by 2-digit numbers >>
- D.14** Divide larger numbers by 2-digit numbers: word problems >>

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**Topic G:** Partial Quotients and Multi-Digit Decimal Division

- J.2** Decimal division patterns over increasing place values >>
- J.3** Division with decimal quotients >>
- J.5** Division with decimal quotients: word problems >>
- S.4** Divide money amounts: word problems >>

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**Topic H:** Measurement Word Problems with Multi-Digit Division

- D.12** Divide 2-digit and 3-digit numbers by 2-digit numbers: word problems >>
  - D.14** Divide larger numbers by 2-digit numbers: word problems >>
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# Module 3

## Addition and Subtraction of Fractions

Textbook section	IXL skills
<b>Topic A:</b> Equivalent Fractions	<b>L.1</b> Decompose fractions multiple ways >>
	<b>M.1</b> Multiply unit fractions by whole numbers using number lines >>
	<b>M.5</b> Multiply fractions by whole numbers using number lines >>
	<i>See also:</i>
	<b>L.2</b> Add and subtract fractions with like denominators using number lines >>
	<b>L.3</b> Add and subtract fractions with like denominators >>
	<b>M.3</b> Multiples of fractions >>
	<b>M.9</b> Multiply fractions by whole numbers II >>
	<b>M.10</b> Multiply fractions by whole numbers: word problems >>
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<b>Topic B:</b> Making Like Units Pictorially	<b>L.8</b> Add fractions with unlike denominators >>
	<b>L.10</b> Subtract fractions with unlike denominators >>
	<b>L.11</b> Add and subtract fractions with unlike denominators: word problems >>
	<i>See also:</i>
	<b>L.6</b> Add fractions with unlike denominators using models >>
	<b>L.9</b> Subtract fractions with unlike denominators using models >>
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<b>Topic C:</b> Making Like Units Numerically	<b>L.8</b> Add fractions with unlike denominators >>
	<b>L.10</b> Subtract fractions with unlike denominators >>
	<b>L.11</b> Add and subtract fractions with unlike denominators: word problems >>
	<b>L.12</b> Add 3 or more fractions with unlike denominators >>
	<b>L.13</b> Add 3 or more fractions: word problems >>
	<b>L.18</b> 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 >>

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**Topic 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.9** Compare fractions using benchmarks >>
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# Module 4

## Multiplication and Division of Fractions and Decimal Fractions

Textbook section	IXL skills
<b>Topic A:</b> Line Plots of Fraction Measurements	<b>W.12</b> Create and interpret line plots with fractions >>
<b>Topic B:</b> Fractions as Division	<b>K.6</b> Convert between improper fractions and mixed numbers >>
<b>Topic C:</b> Multiplication of a Whole Number by a Fraction	<b>M.8</b> Multiply fractions by whole numbers I >> <b>M.9</b> Multiply fractions by whole numbers II >> <b>M.10</b> Multiply fractions by whole numbers: word problems >>
<b>Topic D:</b> Fraction Expressions and Word Problems	<b>L.11</b> Add and subtract fractions with unlike denominators: word problems >> <b>M.10</b> Multiply fractions by whole numbers: word problems >> <b>O.8</b> Add, subtract, multiply, and divide fractions and mixed numbers: word problems >>
<b>Topic E:</b> Multiplication of a Fraction by a Fraction	<b>I.7</b> Multiply two decimals using grids >> <b>I.8</b> Multiply two decimals >> <b>M.12</b> Multiply two unit fractions using models >> <b>M.13</b> Multiply two fractions using models: fill in the missing factor >> <b>M.14</b> Multiply two fractions using models >> <b>M.15</b> Multiply two fractions >> <b>M.16</b> Multiply two fractions: word problems >> <b>M.23</b> Multiply a mixed number by a whole number >> <b>M.24</b> Multiply a mixed number by a fraction >> <b>M.28</b> Multiply fractions and mixed numbers in recipes >>
<b>Topic F:</b> Multiplication with Fractions and Decimals as Scaling and Word Problems	<b>G.13</b> Convert mixed numbers to decimals >> <b>I.5</b> Multiply decimals and whole numbers: 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 >>
- S.3** Multiply money amounts: word problems >>

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**Topic G:** Division of Fractions and Decimal Fractions

- N.1** Divide unit fractions by whole numbers >>
- N.2** Divide whole numbers by unit fractions using models >>
- N.3** Divide whole numbers by unit fractions >>
- N.4** Divide whole numbers and unit fractions >>
- N.7** Divide unit fractions by whole numbers: word problems >>

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**Topic H:** Interpretation of Numerical Expressions

- N.7** Divide unit fractions by whole numbers: word problems >>
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# Module 5

## Addition and Multiplication with Volume and Area

Textbook section	IXL skills
<b>Topic A:</b> Concepts of Volume	<b>EE.11</b> Volume of rectangular prisms made of unit cubes >>
	<b>EE.12</b> Volume of irregular figures made of unit cubes >>
<b>Topic B:</b> Volume and the Operations of Multiplication and Addition	<b>EE.11</b> Volume of rectangular prisms made of unit cubes >>
	<b>EE.13</b> Volume of cubes and rectangular prisms >>
<b>Topic C:</b> Area of Rectangular Figures with Fractional Side Lengths	<b>M.15</b> Multiply two fractions >>
	<b>M.23</b> Multiply a mixed number by a whole number >>
	<b>M.24</b> Multiply a mixed number by a fraction >>
	<b>M.25</b> Multiply two mixed numbers >>
	<b>EE.4</b> Area of squares and rectangles >>
	<b>EE.8</b> Area between two rectangles >>
	<i>See also:</i>
	<b>EE.7</b> Area of compound figures >>
<b>EE.10</b> Area and perimeter: word problems >>	
<b>Topic D:</b> Drawing, Analysis, and Classification of Two-Dimensional Shapes	<b>AA.7</b> Measure angles with a protractor >>
	<b>BB.9</b> Classify quadrilaterals >>

# Module 6

## Problem Solving with the Coordinate Plane

Textbook section	IXL skills	
<b>Topic A:</b> Coordinate Systems	<b>G.8</b> <a href="#">Decimal number lines &gt;&gt;</a>	
	<b>U.1</b> <a href="#">Objects on a coordinate plane &gt;&gt;</a>	
	<b>U.3</b> <a href="#">Coordinate planes as maps &gt;&gt;</a>	
	<b>AA.5</b> <a href="#">Parallel, perpendicular, and intersecting lines &gt;&gt;</a>	
	<i>See also:</i>	
	<b>G.9</b> <a href="#">Compare decimals on number lines &gt;&gt;</a>	
	<b>K.8</b> <a href="#">Graph and compare fractions on number lines &gt;&gt;</a>	
	<b>U.4</b> <a href="#">Follow directions on a coordinate plane &gt;&gt;</a>	
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	<b>Topic B:</b> Patterns in the Coordinate Plane and Graphing Number Patterns from Rules	<b>C.22</b> <a href="#">Multiplication input/output tables &gt;&gt;</a>
<b>C.23</b> <a href="#">Multiplication input/output tables: find the rule &gt;&gt;</a>		
<b>M.11</b> <a href="#">Multiply fractions by whole numbers: input/output tables &gt;&gt;</a>		
<b>V.9</b> <a href="#">Complete a table from a graph &gt;&gt;</a>		
<i>See also:</i>		
<b>V.10</b> <a href="#">Graph a two-variable relationship &gt;&gt;</a>		
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<b>Topic C:</b> Drawing Figures in the Coordinate Plane	<b>AA.5</b> <a href="#">Parallel, perpendicular, and intersecting lines &gt;&gt;</a>	
	<b>CC.1</b> <a href="#">Lines of symmetry &gt;&gt;</a>	
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<b>Topic D:</b> Problem Solving in the Coordinate Plane	<b>W.2</b> <a href="#">Interpret line graphs &gt;&gt;</a>	
	<b>W.3</b> <a href="#">Create line graphs &gt;&gt;</a>	
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<b>Topic E:</b> Multi-Step Word Problems	<b>O.3</b> <a href="#">Write numerical expressions &gt;&gt;</a>	
	<b>O.4</b> <a href="#">Evaluate numerical expressions &gt;&gt;</a>	
	<b>P.1</b> <a href="#">Multi-step word problems &gt;&gt;</a>	
	<b>P.2</b> <a href="#">Word problems with extra or missing information &gt;&gt;</a>	
	<b>P.3</b> <a href="#">Guess-and-check problems &gt;&gt;</a>	

*See also:*

**P.4** Find the order >>

**Topic F:** The Years In Review: A Reflection on A Story of Units

**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.11** Divide 2-digit and 3-digit numbers by 2-digit numbers >>

**H.1** Add decimal numbers >>

**H.2** Subtract decimal numbers >>

**I.3** Multiply a decimal by a one-digit whole number >>

**I.8** Multiply two decimals >>

**K.6** Convert between improper fractions and mixed numbers >>

**M.8** Multiply fractions by whole numbers I >>

**M.9** Multiply fractions by whole numbers II >>

**M.15** Multiply two fractions >>

**N.1** Divide unit fractions by whole numbers >>

**N.3** Divide whole numbers by unit fractions >>

**S.1** Add and subtract money amounts >>

**AA.5** Parallel, perpendicular, and intersecting lines >>

**AA.6** Types of angles >>

**AA.7** Measure angles with a protractor >>

**BB.9** Classify quadrilaterals >>

**EE.11** Volume of rectangular prisms made of unit cubes >>

**EE.13** Volume of cubes and rectangular prisms >>

*See also:*

**G.10** Compare decimal numbers >>

**K.7** Least common denominator >>

**BB.4** Parallel sides in quadrilaterals >>

**DD.1** Identify three-dimensional figures >>

**DD.2** Count vertices, edges, and faces >>