IXL Skill Alignment

Grade 4 Math alignment for EngageNY Common Core Curriculum

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Module 1

Place Value, Rounding, and Algorithms for Addition and Subtraction

Topics	IXL skills
A: Place Value of Multi-Digit Whole Numbers	**A.1** Place values >> **A.3** Word names for numbers >>
B: Comparing Multi-Digit Whole Numbers	
C: Rounding Multi-Digit Whole Numbers	**A.6** Rounding >> **B.8** Estimate sums >> **B.9** Estimate sums: word problems >> **C.6** Estimate differences >> **C.7** Estimate differences: word problems >> *See also:* **D.14** Estimate products: word problems >> **F.3** Estimate sums, differences, products, and quotients: word problems >>
D: Multi-Digit Whole Number Addition	**B.1** Add numbers up to millions >> **B.2** Add numbers up to millions: word problems >> **B.5** Add 3 or more numbers up to millions >>
E: Multi-Digit Whole Number Subtraction	**C.1** Subtract numbers up to millions >>
F: Addition and Subtraction Word Problems	

Module 2

Unit Conversions and Problem Solving with Metric Measurement

Topics	IXL skills	
A: Metric Unit Conversions	**N.9**	Compare and convert metric units of length >>
	N.10	Compare and convert metric units of weight >>
	N.11	Compare and convert metric units of volume >>
B: Application of Metric Unit Conversions	**N.12**	Compare and convert metric units >>
	See also:	
	N.8	Which metric unit is appropriate? >>

Module 3

Multi-Digit Multiplication and Division

Topics	IXL skills	
A: Multiplicative Comparison Word Problems		
B: Multiplication by 10, 100, and 1,000		
C: Multiplication of up to Four Digits by Single-Digit Numbers	**D.5**	Multiply 1-digit numbers by 2-digit numbers >>
	D.6	Multiply 1-digit numbers by 3-digit or 4-digit numbers >>
	D.10	Distributive property: find the missing factor >>
	See also: **D.11**	Multiply using the distributive property >>
D: Multiplication Word Problems		
E: Division of Tens and Ones with Successive Remainders	**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 >>
F: Reasoning with Divisibility	**A.5**	Prime and composite numbers >>
	D.3	Choose the multiples of a given number up to 12 >>
	D.4	Identify factors >>

G: Division of Thousands, Hundreds, Tens, and Ones	**E.7** Divide 2-digit numbers by 1-digit numbers: interpret remainders >> **E.8** Divide larger numbers by 1-digit numbers >> **E.9** Divide larger numbers by 1-digit numbers: word problems >> **E.11** Divide larger numbers by 1-digit numbers: interpret remainders >>
H: Multiplication of Two-Digit by Two-Digit Numbers	**D.17** Multiply a 2-digit number by a 2-digit number: complete the missing steps >> **D.18** Multiply a 2-digit number by a 2-digit number >> *See also:* **D.19** Multiply a 2-digit number by a 2-digit number: word problems >>

Module 4

Angle Measure and Plane Figures

Topics	IXL skills
A: Lines and Angles	**P.13** Acute, right, obtuse, and straight angles >> **P.30** Lines, line segments, and rays >> **P.31** Parallel, perpendicular, intersecting >>
B: Angle Measurement	**P.14** Angles of 90, 180, 270, and 360 degrees >> **P.15** Measure angles with a protractor >> *See also:* **P.16** Estimate angle measurements >>
C: Problem Solving with the Addition of Angle Measures	**P.17** Adjacent angles >>
D: Two-Dimensional Figures and Symmetry	**P.2** Classify triangles by side lengths >> **P.3** Classify triangles by angles >> **P.8** Classify quadrilaterals >> **P.29** Lines of symmetry >>

Module 5

Fraction Equivalence, Ordering, and Operations

Topics	IXL skills	
A: Decomposition and Fraction Equivalence	**R.1**	Decompose fractions into unit fractions >>
	R.2	Decompose fractions >>
	R.3	Decompose fractions multiple ways >>
B: Fraction Equivalence Using Multiplication and Division	**Q.4**	Find equivalent fractions using area models >>
	Q.5	Graph equivalent fractions on number lines >>
	See also:	
	Q.6	Equivalent fractions >>
C: Fraction Comparison	**Q.10**	Benchmark fractions >>
	Q.11	Compare fractions using benchmarks >>
	Q.12	Graph and compare fractions on number lines >>
	Q.14	Compare fractions with like numerators or denominators >>
	Q.16	Compare fractions >>
	See also:	
	Q.15	Compare fractions using models >>

D: Fraction Addition and Subtraction	**R.4**	Add fractions with like denominators using number lines >>
	R.5	Subtract fractions with like denominators using number lines >>
	R.6	Add and subtract fractions with like denominators using number lines >>
	R.7	Add and subtract fractions with like denominators >>
	R.9	Add and subtract fractions with like denominators: word problems >>
	R.10	Add and subtract fractions with like denominators in recipes >>
	R.11	Add 3 or more fractions with like denominators >>
	S.2	Add fractions with unlike denominators >>
	See also:	
	Q.22	Convert between improper fractions and mixed numbers >>
	S.1	Add fractions with unlike denominators using models >>
E: Extending Fraction Equivalence to Fractions Greater Than 1	**J.8**	Create and interpret line plots with fractions >>
	Q.22	Convert between improper fractions and mixed numbers >>
	T.1	Multiply unit fractions by whole numbers using number lines >>
	T.5	Multiply unit fractions by whole numbers >>
F: Addition and Subtraction of Fractions by Decomposition	**R.12**	Add and subtract mixed numbers with like denominators >>

G: Repeated Addition of Fractions as Multiplication

T.10 Multiply fractions by whole numbers >>

T.12 Multiply fractions by whole numbers: word problems >>

T.13 Multiply fractions and mixed numbers by whole numbers in recipes >>

See also:

J.8 Create and interpret line plots with fractions >>

T.7 Multiply fractions by whole numbers using number lines >>

T.8 Multiply fractions by whole numbers using models >>

H: Exploring a Fraction Pattern

Module 6

Decimal Fractions

Topics	IXL skills
A: Exploration of Tenths	
B: Tenths and Hundredths	**U.1** What decimal number is illustrated? >> **U.2** Model decimals and fractions >> **U.6** Graph decimals on number lines >> **U.7** Decimal number lines >> **U.8** Graph fractions as decimals on number lines >> **U.11** Convert decimals between standard and expanded form using fractions >> *See also:* **Q.7** Fractions with denominators of 10, 100, and 1000 >>
C: Decimal Comparison	**U.13** Compare decimals on number lines >> **U.15** Put decimal numbers in order I >> **U.16** Put decimal numbers in order II >> **U.17** Compare decimals and fractions on number lines >> *See also:* **M.2** Compare money amounts >>
D: Addition with Tenths and Hundredths	**S.5** Add up to 4 fractions with denominators of 10 and 100 >> **U.20** Solve decimal problems using diagrams >>

E: Money Amounts as Decimal Numbers

M.4 Add and subtract money amounts >>

M.6 Making change >>

M.7 Price lists with addition and subtraction >>

M.8 Price lists with multiplication >>

See also:

M.1 Count coins and bills - up to $5 bill >>

Module 7

Exploring Measurement with Multiplication

Topics	IXL skills
A: Measurement Conversion Tables	**N.5** Compare and convert customary units of volume >> *See also:* **N.3** Compare and convert customary units of length >> **N.4** Compare and convert customary units of weight >> **N.6** Compare and convert customary units >> **N.14** Compare customary units by multiplying >> **O.1** Convert time units >>
B: Problem Solving with Measurement	**O.2** Add and subtract mixed time units >> *See also:* **N.14** Compare customary units by multiplying >> **N.16** Add and subtract mixed customary units >>
C: Investigation of Measurements Expressed as Mixed Numbers	

D: Year in Review

- **A.5** Prime and composite numbers >>
- **B.1** Add numbers up to millions >>
- **C.1** Subtract numbers up to millions >>
- **D.5** Multiply 1-digit numbers by 2-digit numbers >>
- **D.6** Multiply 1-digit numbers by 3-digit or 4-digit numbers >>
- **D.11** Multiply using the distributive property >>
- **D.18** Multiply a 2-digit number by a 2-digit number >>
- **E.4** Divide 2-digit numbers by 1-digit numbers >>
- **E.8** Divide larger numbers by 1-digit numbers >>
- **M.1** Count coins and bills - up to $5 bill >>
- **N.8** Which metric unit is appropriate? >>
- **N.9** Compare and convert metric units of length >>
- **N.10** Compare and convert metric units of weight >>
- **N.11** Compare and convert metric units of volume >>
- **N.12** Compare and convert metric units >>
- **P.2** Classify triangles by side lengths >>
- **P.8** Classify quadrilaterals >>
- **P.13** Acute, right, obtuse, and straight angles >>
- **P.15** Measure angles with a protractor >>
- **P.22** Area of complex figures (with all right angles) >>
- **P.23** Area between two rectangles >>
- **P.29** Lines of symmetry >>
- **P.31** Parallel, perpendicular, intersecting >>
- **Q.22** Convert between improper fractions and mixed numbers >>
- **U.6** Graph decimals on number lines >>
- **U.8** Graph fractions as decimals on number lines >>