



IXL Skill Alignment

4th grade alignment for Math in Focus (2013)



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Chapter 1

Working with Whole Numbers

Textbook section	IXL skills
1.1: Numbers to 100,000	<ol style="list-style-type: none">1. Naming numbers up to one million 6QE2. Convert between standard and expanded form M5V3. Value of a digit WLP <p><i>Also consider</i></p> <ul style="list-style-type: none">• Identify place value names Y7Q• Place value review B5N
1.2: Comparing Numbers to 100,000	<ol style="list-style-type: none">1. Compare numbers up to one hundred thousand DP22. Order numbers up to one million 94E
1.3: Adding and Subtracting Multi-Digit Numbers	<ol style="list-style-type: none">1. Add two numbers up to five digits RG22. Subtract numbers up to five digits VP2 <p><i>Also consider</i></p> <ul style="list-style-type: none">• Add and subtract numbers up to five digits CFX• Add two numbers: fill in the missing digits HZG• Subtraction: fill in the missing digits BFM

Chapter 2

Estimation and Number Theory

Textbook section	IXL skills
2.1: Estimation	<ol style="list-style-type: none"> 1. Estimate sums VMD 2. Estimate differences QJY 3. Estimate products: multiply by 1-digit numbers WDG 4. Estimate quotients using compatible numbers: 1-digit divisors CWE <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Rounding: up to thousands place Z7U • Estimate sums, differences, products, and quotients: word problems CRD • Multi-step word problems: identify reasonable answers K6X
2.2: Factors	<ol style="list-style-type: none"> 1. Identify factors 2S9 2. Find all the factor pairs of a number URL 3. Greatest common factor PMW 4. Prime and composite: up to 100 L9R <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiplication facts up to 10: find the missing factor NLU • Which number is prime or composite? C6S
2.3: Multiples	<ol style="list-style-type: none"> 1. Choose the multiples of a given number up to 12 ENC 2. Least common multiple CVK
2.4: Multiplying Using Models	<ol style="list-style-type: none"> 1. Multiply 1-digit numbers by teen numbers using grids 8UH 2. Multiply 1-digit numbers by 2-digit numbers using area models II HZX <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply 1-digit numbers by 2-digit numbers using area models I VCM

Chapter 3

Whole Number Multiplication and Division

Textbook section	IXL skills
3.1: Multiplying by a 1-Digit Number	<ol style="list-style-type: none"> 1. Multiply 1-digit numbers by 3-digit or 4-digit numbers using area models II WKL 2. Multiply 1-digit numbers by 3-digit or 4-digit numbers PPM <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 numbers by multi-digit numbers using partial products 23C
3.2: Multiplying by a 2-Digit Number	<ol style="list-style-type: none"> 1. Multiply 2-digit numbers by 2-digit numbers using area models II 8K7 2. Multiply by 2-digit numbers EK6 3. Estimate products: multiply by 2-digit numbers 2TR <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply a 2-digit number by a 2-digit number: complete the missing steps XQ8
3.3: Modeling Division with Regrouping	<ol style="list-style-type: none"> 1. Divide 3-digit numbers by 1-digit numbers PCB
3.4: Dividing by a 1-Digit Number	<ol style="list-style-type: none"> 1. Divide larger numbers by 1-digit numbers GE8 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Divide numbers ending in zeroes by 1-digit numbers 2K3 • Divide by 1-digit numbers: pick the better estimate 2FS
3.5: Real-World Problems: Multiplication and Division	<ol style="list-style-type: none"> 1. Multi-step word problems EA9 2. Multi-step word problems involving remainders SLS 3. Multi-step word problems with strip diagrams CZQ

Also consider

- Write variable equations to represent word problems 5SJ
 - Use strip diagrams to represent and solve multi-step word problems G8Z
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Chapter 4

Tables and Line Graphs

Textbook section	IXL skills
4.1: Making and Interpreting a Table	<ol style="list-style-type: none">1. Create frequency charts BVV2. Interpret frequency charts PKD <p><i>Also consider</i></p> <ul style="list-style-type: none">• Compare numbers in tables EFV
4.2: Using a Table	<ol style="list-style-type: none">1. Read a table B9R
4.3: Line Graphs	<ol style="list-style-type: none">1. Interpret line graphs 36B2. Create line graphs QX23. Choose the best type of graph 7G4

Chapter 5

Data and Probability

Textbook section	IXL skills
5.1: Average	<ol style="list-style-type: none">1. Find the mean 76J
5.2: Median, Mode, and Range	<ol style="list-style-type: none">1. Interpret line plots to find the mean, median, mode, or range 7RU <p><i>Also consider</i></p> <ul style="list-style-type: none">• Find the mode M9S• Find the median QPS• Find the range 7EE• Complete line plots with whole numbers MYD
5.3: Stem-and-Leaf Plots	<ol style="list-style-type: none">1. Create stem-and-leaf plots UDS2. Interpret stem-and-leaf plots to find the median, mode, or range 2FY <p><i>Also consider</i></p> <ul style="list-style-type: none">• Identify the outlier MMW• Interpret stem-and-leaf plots SLX
5.4: Outcomes	<ol style="list-style-type: none">1. Understanding probability SDF
5.5: Probability as a Fraction	<ol style="list-style-type: none">1. Find the probability Z8W
5.6: Real-World Problems: Data and Probability	<ol style="list-style-type: none">1. Calculate the mean, median, mode, or range: word problems GDG <p><i>Also consider</i></p> <ul style="list-style-type: none">• Make predictions 8ZA

Chapter 6

Fractions and Mixed Numbers

Textbook section	IXL skills
6.1: Adding Fractions	<ol style="list-style-type: none"> Add fractions with unlike denominators using objects T78 Add fractions with unlike denominators MW6 <p><i>Also consider</i></p> <ul style="list-style-type: none"> Identify equivalent fractions GSG Write fractions in lowest terms 3R5
6.2: Subtracting Fractions	<ol style="list-style-type: none"> Subtract fractions with unlike denominators using objects YT7 Subtract fractions with unlike denominators RF8
6.3: Mixed Numbers	<ol style="list-style-type: none"> Mixed number review T5V
6.4: Improper Fractions	<ol style="list-style-type: none"> Convert mixed numbers to improper fractions YMB
6.5: Renaming Improper Fractions and Mixed Numbers	<ol style="list-style-type: none"> Convert improper fractions to mixed numbers 93W
6.6: Renaming Whole Numbers when Adding and Subtracting Fractions	<ol style="list-style-type: none"> Add fractions with unlike denominators: sums greater than 1 Q6C Subtract fractions from whole numbers FFW
6.7: Fraction of a Set	<ol style="list-style-type: none"> Fractions of a number QB8 Multiply fractions by whole numbers 5JD
6.8: Real-World Problems: Fractions	<ol style="list-style-type: none"> Fractions of a set: word problems 7QG Add, subtract, and multiply fractions with unlike denominators: word problems XJP
6.9: Line Plots with Fractions of a Unit	<ol style="list-style-type: none"> Create and interpret line plots with fractions RA9

Chapter 7

Decimals

Textbook section

IXL skills

7.1: Understanding Tenths

1. Convert fractions and mixed numbers to decimals: denominators of 10 HTE
2. Understanding tenths expressed in words 2L4

Also consider

- Model decimals and fractions: tenths K8P

7.2: Understanding Hundredths

1. Convert fractions and mixed numbers to decimals: denominators of 100 A2U
2. What decimal number is illustrated? B7E
3. Graph decimals on number lines N93

Also consider

- Understanding decimals expressed in words LUL
- Value of a digit in a decimal number W68
- Relate decimals and money NSC
- Model decimals and fractions: hundredths MB6

7.3: Comparing Decimals

1. One-tenth or one-hundredth more or less JMW
2. Compare decimals I SWT
3. Put decimal numbers in order 4M5
4. Number sequences involving decimals EZW

Also consider

- Compare decimals on number lines T2W
- Compare decimals using models CV7
- Compare decimals II CMS

7.4: Rounding Decimals

1. Round decimals XFX

Also consider

- Round money amounts X9R

7.5: Fractions and Decimals

1. Convert fractions and mixed numbers to decimals 29Z
 2. Convert decimals to fractions and mixed numbers DBF
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Chapter 8

Adding and Subtracting Decimals

Textbook section	IXL skills
8.1: Adding Decimals	<ol style="list-style-type: none">1. Add decimal numbers ZEU <p><i>Also consider</i></p> <ul style="list-style-type: none">• Add 3 or more decimals YMM
8.2: Subtracting Decimals	<ol style="list-style-type: none">1. Subtract decimal numbers YDK <p><i>Also consider</i></p> <ul style="list-style-type: none">• Add and subtract money amounts 3Y6• Complete the addition or subtraction sentence RST• Inequalities with addition and subtraction Q9B
8.3: Real-World Problems: Decimals	<ol style="list-style-type: none">1. Add and subtract decimals: word problems 6HP2. Add and subtract money amounts: multi-step word problems UGK <p><i>Also consider</i></p> <ul style="list-style-type: none">• Solve decimal problems using diagrams WCK

Chapter 9

Angles

Textbook section	IXL skills
9.1: Understanding and Measuring Angles	<ol style="list-style-type: none">1. Points, lines, line segments, rays, and angles 9MK2. Measure angles with a protractor NCN3. Acute, right, and obtuse angles W6Z <p><i>Also consider</i></p> <ul style="list-style-type: none">• Estimate angle measurements LUJ
9.2: Drawing Angles To 180°	<ol style="list-style-type: none">1. Draw angles with a protractor R9K
9.3: Turns and Angle Measures	<ol style="list-style-type: none">1. Angles of 90, 180, 270, and 360 degrees UQV2. Adjacent angles VJY <p><i>Also consider</i></p> <ul style="list-style-type: none">• Use fractions to find the measure of an angle Q68• Complementary and supplementary angles: find the missing measure BBB• Angle measures: word problems YUA

Chapter 10

Perpendicular and Parallel Line Segments

Textbook section	IXL skills
10.1: Drawing Perpendicular Line Segments	1. Identify perpendicular lines PMT
10.2: Drawing Parallel Line Segments	1. Identify parallel lines SDQ 2. Identify parallel, perpendicular, and intersecting lines DSU
10.3: Horizontal and Vertical Lines	

Chapter 11

Squares and Rectangles

Textbook section	IXL skills
11.1: Squares and Rectangles	1. Identify rectangles GHH
11.2: Properties of Squares and Rectangles	1. Square angles: find the missing measure 9R6

Chapter 12

Conversion of Measurements

Textbook section	IXL skills
12.1: Length	<ol style="list-style-type: none"> 1. Compare and convert metric units of length GZM 2. Compare and convert customary units of length A89 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Conversion tables: metric units of length 73K • Conversion tables: customary units of length T8A
12.2: Mass, Weight, and Volume	<ol style="list-style-type: none"> 1. Conversion tables - metric units YTJ 2. Conversion tables - customary units LSP 3. Convert customary units involving fractions 8CD 4. Convert mixed measures with customary units 5L3 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Which metric unit is appropriate? FPM • Which customary unit is appropriate? YYA
12.3: Time	<ol style="list-style-type: none"> 1. Convert time units PS8 2. Convert mixed time units ZSJ 3. Fractions of time units A8H <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Compare units of time V47 • Add and subtract mixed time units VD2
12.4: Real-World Problems: Measurement	<ol style="list-style-type: none"> 1. Multi-step measurement word problems A2E 2. Find start and end times: multi-step word problems ZQP <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Measurement word problems with fractions UST • Elapsed time: word problems VCC

Chapter 13

Area and Perimeter

Textbook section	IXL skills
13.1: Area of a Rectangle	<ol style="list-style-type: none">1. Multiply to find the area of a rectangle made of unit squares 79B2. Area of rectangles F2G <p><i>Also consider</i></p> <ul style="list-style-type: none">• Tile a rectangle and find the area FV6• Create rectangles with a given area BMV
13.2: Rectangles and Squares	<ol style="list-style-type: none">1. Find the perimeter of rectangles using formulas KGJ2. Find the missing side length of a rectangle UPZ <p><i>Also consider</i></p> <ul style="list-style-type: none">• Find the area or missing side length of a rectangle 9E6
13.3: Composite Figures	<ol style="list-style-type: none">1. Area of complex figures (with all right angles) 38W2. Perimeter of rectilinear shapes H9D
13.4: Using Formulas for Area and Perimeter	<ol style="list-style-type: none">1. Area and perimeter: word problems LTP2. Area between two rectangles GY2 <p><i>Also consider</i></p> <ul style="list-style-type: none">• Use area and perimeter to determine cost 5GF

Chapter 14

Symmetry

Textbook section	IXL skills
14.1: Identifying Lines of Symmetry	<ol style="list-style-type: none">1. Identify lines of symmetry 9FD2. Count lines of symmetry MWS <p><i>Also consider</i></p> <ul style="list-style-type: none">• Introduction to line symmetry NS7• Draw lines of symmetry SQF
14.2: Rotational Symmetry	<ol style="list-style-type: none">1. Rotational symmetry MP8
14.3: Making Symmetric Shapes and Patterns	

Chapter 15

Tesselations

Textbook section	IXL skills
15.1: Identifying Tessellations	
15.2: More Tessellations	