



IXL Skill Alignment

2nd Grade alignment for Math Expressions Common Core



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Unit 1

Addition and Subtraction Within 20

Big Idea 1: Strategies for Addition and Subtraction

Textbook section	IXL skills
1-1: Represent Addition and Subtraction	1. Addition and subtraction - ways to make a number - up to 20 PD7 <i>Also consider</i> <ul style="list-style-type: none"> Add one-digit numbers 5C6 Write addition sentences to describe pictures - sums to 20 L2M Write subtraction sentences to describe pictures - up to 18 F8W
1-2: Relate Addition and Subtraction	1. Related addition facts YDX 2. Related subtraction facts P6Y 3. Fact families NSN
1-3: Make-a-Ten Strategies	<ul style="list-style-type: none"> <i>Coming soon:</i> Make 10 to add
1-4: Relate Unknown Addends and Subtraction	1. Complete the addition sentence - sums to 20 8XR <i>Also consider</i> <ul style="list-style-type: none"> Subtract a one-digit number from a two-digit number up to 18 HSU
1-5: More Practice with Unknown Addends and Teen Totals	1. Relate addition and subtraction sentences PRS <i>Also consider</i> <ul style="list-style-type: none"> Balance addition equations - sums to 20 6LC
1-6: Odd and Even Numbers	1. Skip-counting sequences - count by twos YJ8 2. Even or odd 54Z 3. Add doubles - complete the sentence S46 <i>Also consider</i> <ul style="list-style-type: none"> Skip-counting by twos LK2

1-7: Strategies Using Doubles

1. Add doubles 8Z7
2. Subtract doubles VK7
3. Add using doubles plus or minus one A8U

1-8: Equations, Equation Chains, and Vertical Form

1. Add and subtract numbers up to 20 QQP
2. Complete the subtraction sentence - up to 20 HR7

Also consider

- Addition and subtraction sentences up to 20: which is true? KP6

1-9: Add Three or Four Addends

1. Add three one-digit numbers YCC
2. Add four one-digit numbers 3D2

Big Idea 2: Addition and Subtraction Situations

Textbook section	IXL skills
1-10: Add To and Take From Word Problems	<ol style="list-style-type: none"> 1. Addition and subtraction word problems with pictures - up to 10 2F4 2. Addition and subtraction word problems - up to 10 TLG
1-11: Add To and Take From Problems — Unknown in All Positions	<ol style="list-style-type: none"> 1. Addition word problems - sums to 20 EN6 2. Subtraction word problems - up to 18 2FD
1-12: Put Together/Take Apart Problems	<ol style="list-style-type: none"> 1. Addition sentences for word problems - sums to 20 VSF 2. Subtraction sentences for word problems - up to 18 AZ8
1-13: Special Put Together/Take Apart Problems	<ol style="list-style-type: none"> 1. Ways to make a number with addition - sums to 20 9NA 2. Ways to subtract - up to 20 89K <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Ways to make a number with addition - sums to 10 KKE • Ways to subtract - up to 10 RHJ
1-14: Compare Word Problems	

1-15: More Compare Word Problems**1-16:** Mixed Word Problems

1. Addition and subtraction word problems - up to 20 75R

Big Idea 3: More Complex Situations**Textbook section****IXL skills****1-17:** Problems with Not Enough, Extra, or Hidden Information**1-18:** More Complex Compare Problems**1-19:** Two-Step Word Problems

1. Add three one-digit numbers: word problems VJ9

Also consider

- Addition and subtraction - balance equations - up to 20 F99

1-20: Mixed Word Problems

1. Addition and subtraction sentences for word problems - up to 20 KKC

Also consider

- Add four or more one-digit numbers: word problems 8NS

1-21: Focus on Mathematical Practices

1. Interpret data in tables LH7

Unit 2

Addition Within 200

Big Idea 1: Use Place Value

Textbook section	IXL skills
2-1: Ones, Tens, Hundreds	1. Hundreds chart LHN
2-2: Draw Quick Tens and Quick Hundreds	1. Add multiples of 10 NPQ
2-3: Represent Numbers in Different Ways	1. Place value models up to 120 TCY 2. Convert to/from a number - tens and ones GDN 3. Writing numbers up to 100 in expanded form LH2 4. Writing numbers up to 100 in words - convert words to digits 2FT 5. Writing numbers up to 100 in words - convert digits to words VPG
2-4: Combine Ones, Tens, and Hundreds	1. Add 1 or 10 EZG 2. Input/output tables - add 10 ABR <i>Also consider</i> <ul style="list-style-type: none"> Count by tens and hundreds Z8G
2-5: Compare Numbers Within 200	1. Comparing numbers up to 100 G7F <i>Also consider</i> <ul style="list-style-type: none"> Put numbers up to 100 in order LK6

Big Idea 2: Add 2-Digit Numbers

Textbook section	IXL skills
2-6: Explore 2-Digit Addition	1. Addition word problems - up to two digits XAT
2-7: Addition — Show All Totals Method	1. Write the addition sentence - up to two digits 5FM

Also consider

- Use models to add two-digit numbers - without regrouping GK2
- Add two-digit numbers without regrouping - sums to 100 TX5

2-8: Addition — New Groups Below Method

1. Use models to add two-digit numbers - with regrouping QL8
2. Add two-digit numbers with regrouping - sums to 100 GLX

Also consider

- Use models to add a two-digit and a one-digit number - with regrouping URQ
- Add a two-digit and a one-digit number - with regrouping 8BT
- Regroup tens and ones - ways to make a number JKT

2-9: Practice Addition with Sums over 100

1. Add two-digit numbers - sums to 200 GZY

Also consider

- Regroup tens and ones 5LV

2-10: Choose an Addition Method

1. Addition input/output tables - up to two digits 5NL

Also consider

- Ways to make a number using addition S5E

Big Idea 3: Money and Fluency for Addition Within 100

Textbook section	IXL skills
2-11: Buy with Pennies and Dimes	1. Count money up to \$2 - pennies, dimes, and dollar bills only N5Q
2-12: Pennies, Nickels, and Dimes	<ol style="list-style-type: none"> 1. Skip-counting by fives VHG 2. Count money - pennies, nickels, and dimes only AVN
2-13: Fluency: Addition Within 100	1. Add money - up to \$1 6X3

2-14: Add Three or Four 2-Digit Addends

1. Add three numbers up to two digits each YTH
2. Add four numbers up to two digits each DP6

Also consider

- Add three numbers up to two digits each: word problems 52T
- Add four numbers up to two digits each: word problems YSX

2-15: Focus on Mathematical Practices

1. Purchases up to \$2 - do you have enough money GDZ

Also consider

- Skip-counting stories SSL

Unit 3

Length and Shapes

Big Idea 1: Length and Shapes

Textbook section	IXL skills
3-1: Measure Length	1. Measure using a centimeter ruler 7WA
3-2: Recognize and Draw Shapes	1. Select two-dimensional shapes DWL 2. Count sides and vertices EAQ 3. Square corners 27M <i>Also consider</i> <ul style="list-style-type: none"> Equal sides D6K
3-3: Estimate and Measure	1. Perimeter of rectangles NEY
3-4: Draw, Estimate, and Measure	1. Perimeter NP9
3-5: Draw Using Faces	1. Front, side, and top views 9SU 2. Name the two-dimensional shape 2FK <i>Also consider</i> <ul style="list-style-type: none"> Identify faces of three-dimensional shapes QSR

Big Idea 2: Estimate, Measure, and Make Line Plots

Textbook section	IXL skills
3-6: Estimate and Measure with Centimeters	1. Which metric unit of length is appropriate? SKH 2. Interpret line plots HY6
3-7: Estimate and Measure with Inches	1. Measure using an inch ruler 88A <i>Also consider</i> <ul style="list-style-type: none"> Which customary unit of length is appropriate: inches, feet, or yards? GKJ

3-8: Measure for and Make Line Plots

1. Create line plots F2U

Also consider

- Customary units of length: word problems GSF
 - Metric units of length: word problems KJ5
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3-9: Focus on Mathematical Practices

1. Compose two-dimensional shapes QPK

Also consider

- Find the next shape in a repeating pattern PE8
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Unit 4

Subtract 2-Digit Numbers

Big Idea 1: Totals of Mixed Coins and Bills

Textbook section	IXL skills
4-1: Explore Quarters	1. Count money - up to \$1 DGK <i>Also consider</i> <ul style="list-style-type: none"> Add money - up to \$1: word problems ZWJ
4-2: Explore Dollars	1. Count money - up to \$2 DVD <i>Also consider</i> <ul style="list-style-type: none"> Equivalent amounts of money - up to \$1 MGA Exchanging money - with pictures VZD Count money - up to \$5 3R8

Big Idea 2: Multidigit Subtraction Strategies

Textbook section	IXL skills
4-3: Addends and Subtraction	1. How much more to make a dollar? V9L
4-4: Subtraction Word Problems	1. Subtraction word problems - up to two digits UFU 2. Write the subtraction sentence - up to two digits ZQH
4-5: Two Methods of Subtraction	1. Subtract a one-digit number from a two-digit number - without regrouping L8D 2. Subtract a one-digit number from a two-digit number - with regrouping P85 <i>Also consider</i> <ul style="list-style-type: none"> Subtract multiples of 10 2Q6
4-6: Practice and Explain a Method	1. Subtract two two-digit numbers - without regrouping R8C 2. Subtract two two-digit numbers - with regrouping TWE

Also consider

- Ways to make a number using subtraction DTN

4-7: Subtract from 200**4-8:** Ungroup from the Left or from the Right

1. Subtract two-digit numbers from three-digit numbers XWG

Also consider

- Subtract a one-digit number from a three-digit number 56N

4-9: Zero in the Ones or Tens Place**4-10:** Model Subtraction with Money

1. Correct amount of change - purchases up to \$2 5XA

Also consider

- Subtract money - up to \$1 WH5
- Least number of coins QAP
- Making change LYP

4-11: Fluency: Subtraction Within 100

1. Subtract money - up to \$1: word problems ME9
2. Subtraction input/output tables - up to two digits NJ5

Big Idea 3: Word Problems: Addition and Subtraction Within 100

Textbook section	IXL skills
4-12: Word Problems with Addition and Subtraction	<ol style="list-style-type: none"> 1. Add and subtract money - up to \$1: word problems N5Y
4-13: Equations with Greater Numbers	<ol style="list-style-type: none"> 1. Fact families - up to 100 WJ7
4-14: Practice Addition and Subtraction	<ol style="list-style-type: none"> 1. Add and subtract numbers up to 100 JDT <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Addition and subtraction - ways to make a number - up to 100 8WA • Which sign (+ or -) makes the number sentence true? K7X

4-15: Buy and Sell with One Dollar

1. Add and subtract money - up to \$1 LYC
2. Correct amount of change LQ7

4-16: Word Problems with Unknown Addends

1. Complete the addition sentence - up to two digits CZK

4-17: More Word Problems with Unknown Addends

1. Subtraction word problems - two two-digit numbers 4K5

4-18: Start Unknown Problems

1. Complete the subtraction sentence - up to two digits YWC
2. Write the addition or subtraction sentence - up to two digits JHU

4-19: Compare Word Problems**4-20: Mixed Word Problems**

1. Addition and subtraction word problems - up to 100 MEP

4-21: Two-Step Problems

1. Two-step addition and subtraction word problems - up to 100 7P8

4-22: More Two-Step Word Problems

1. Addition and subtraction - balance equations - up to 100 KSG

4-23: Focus on Mathematical Practices

1. Metric units of length: word problems KJ5

Unit 5

Time, Graphs, and Word Problems

Big Idea 1: Time

Textbook section	IXL skills
5-1: Hours and A.M. or P.M.	1. A.M. or P.M. EJV 2. Read clocks and write times: to the hour HWN <i>Also consider</i> <ul style="list-style-type: none"> Match analog and digital clocks: to the hour BCR
5-2: Hours and Minutes	1. Match analog and digital clocks HKL 2. Read clocks and write times K7F <i>Also consider</i> <ul style="list-style-type: none"> Match digital clocks and times 36N Match analog clocks and times D9K Time words: o'clock, half, quarter 5TA

Big Idea 2: Picture Graphs

Textbook section	IXL skills
5-3: Discuss Picture Graphs	1. Create pictographs I NM5 <i>Also consider</i> <ul style="list-style-type: none"> Create pictographs II P2T
5-4: Read Picture Graphs	1. Interpret pictographs I QDT <i>Also consider</i> <ul style="list-style-type: none"> Interpret pictographs II YL6

Big Idea 3: Bar Graphs

Textbook section	IXL skills
5-5: Introduce Bar Graphs	1. Which bar graph is correct? BMG
5-6: Read Bar Graphs	1. Interpret bar graphs I RPD 2. Interpret bar graphs II 8CH
5-7: Solve Problems Using a Bar Graph	1. Use bar graphs to solve problems SVS <i>Also consider</i> <ul style="list-style-type: none">• Which table is correct? 89J
5-8: Collect and Graph Data	1. Convert between bar graphs and tables 6WP
5-9: Make Graphs and Interpret Data	1. Create bar graphs 6KD
5-10: Focus on Mathematical Practices	1. Create bar graphs II RGN

Unit 6

3-Digit Addition and Subtraction

Big Idea 1: Understanding Numbers to 1,000

Textbook section	IXL skills
6-1: Count Numbers to 1,000	<ol style="list-style-type: none">Place value models - up to hundreds PBX <p><i>Also consider</i></p> <ul style="list-style-type: none">Place value - up to hundreds BDF
6-2: Place Value	<ol style="list-style-type: none">Convert between standard and expanded form DZB <p><i>Also consider</i></p> <ul style="list-style-type: none">Convert to/from a number - up to hundreds HUXConvert from expanded form - up to hundreds LG5
6-3: Compare Numbers Within 999	<ol style="list-style-type: none">Comparing numbers up to 1,000 XF9 <p><i>Also consider</i></p> <ul style="list-style-type: none">Put numbers up to 1,000 in order 3N2Greatest and least - word problems - up to 1,000 6QX
6-4: Count by Ones and by Tens	<ol style="list-style-type: none">Count forward - up to 1,000 88PCount forward by tens - up to 1,000 B86Writing numbers up to 1,000 in words - convert words to digits JKDWriting numbers up to 1,000 in words - convert digits to words VPQ <p><i>Also consider</i></p> <ul style="list-style-type: none">Number lines - up to 1,000 KFQ
6-5: Add Ones, Tens, and Hundreds	<ol style="list-style-type: none">Add multiples of 100 85Z <p><i>Also consider</i></p> <ul style="list-style-type: none">Add multiples of 10 or 100 RCJ

Big Idea 2: Adding to 1,000

Textbook section	IXL skills
6-6: 3-Digit Addition	<ol style="list-style-type: none"> 1. Addition word problems - up to three digits UV2 2. Write the addition sentence - up to three digits PQT
6-7: Discuss 3-Digit Addition	<ol style="list-style-type: none"> 1. Use models to add three-digit numbers - without regrouping Q7V 2. Use models to add three-digit numbers - with regrouping KUG 3. Addition with three-digit numbers ETW
6-8: Word Problems: Unknown Addends	<ol style="list-style-type: none"> 1. Complete the addition sentence - up to three digits R5W <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Subtraction word problems - up to three digits ZMA

Big Idea 3: 3-Digit Subtraction

Textbook section	IXL skills
6-9: Subtract from Hundreds Numbers	
6-10: Subtract from Numbers with Zeros	<ol style="list-style-type: none"> 1. Subtract across zeros 9G5 2. Subtract multiples of 10 or 100 VVM <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Subtract multiples of 100 2E2
6-11: Subtract from Any 3-Digit Number	<ol style="list-style-type: none"> 1. Subtract three-digit numbers - with regrouping E8A 2. Subtract three-digit numbers - without regrouping EFL
6-12: Practice Ungrouping	<ol style="list-style-type: none"> 1. Subtract three-digit numbers ZVR

Big Idea 4: 3-Digit Addition and Subtraction

Textbook section	IXL skills
6-13: Relationships Between Addition and Subtraction Methods	<ol style="list-style-type: none">1. Add and subtract numbers up to 1,000 WXQ <p><i>Also consider</i></p> <ul style="list-style-type: none">• Complete the subtraction sentence - up to three digits MDY
6-14: Mixed Addition and Subtraction Word Problems	<ol style="list-style-type: none">1. Addition and subtraction word problems - up to 1,000 MJB
6-15: Focus on Mathematical Practices	<ol style="list-style-type: none">1. Two-step addition and subtraction word problems YZT

Unit 7

Arrays, Equal Shares, and Adding or Subtracting Lengths

Big Idea 1: Arrays and Equal Shares

Textbook section	IXL skills
7-1: Arrays, Partitioned Rectangles, and Equal Shares	<ol style="list-style-type: none"> Write addition sentences for arrays in two ways CXL Tile a rectangle with squares 2VD <p><i>Also consider</i></p> <ul style="list-style-type: none"> Identify repeated addition in arrays: sums to 10 F7E Write addition sentences for arrays: sums to 10 Z7N Area 73H
7-2: Find Equal Shares	<ol style="list-style-type: none"> Make halves XME Make thirds 65F Make fourths QZ9 Make halves, thirds, and fourths in different ways 6SG

Big Idea 2: Relate Addition and Subtraction to Length

Textbook section	IXL skills
7-3: Length Word Problems and Number Line Diagrams	<ol style="list-style-type: none"> Customary units of length: word problems GSF
7-4: Add Three and Four Lengths	<ol style="list-style-type: none"> Perimeter NP9 <p><i>Also consider</i></p> <ul style="list-style-type: none"> Perimeter: word problems EL7
7-5: More Length Word Problems	<ol style="list-style-type: none"> Metric units of length: word problems KJ5 Complete the addition sentence: sums to 100 GSZ



7-6: Focus on Mathematical Practices

1. Equal parts H5R
 2. Make halves, thirds, and fourths QD2
-