



# IXL Skill Alignment

2nd grade alignment for Math Expressions 2013 Common Core



Use IXL's interactive skill plan to get up-to-date skill alignments, assign skills to your students, and track progress.

[www.ixl.com/math/skill-plans/math-expressions-2013-2nd-grade](http://www.ixl.com/math/skill-plans/math-expressions-2013-2nd-grade)

This document includes the IXL® skill alignments to Houghton Mifflin Harcourt's **Math Expressions 2013 Common Core** curriculum. IXL provides skill alignments as a service to teachers, students, and parents. The skill alignments are provided by IXL and are not affiliated with, sponsored by, reviewed, approved or endorsed by Houghton Mifflin Harcourt or any other third party. IXL® and IXL Learning® are registered trademarks of IXL Learning, Inc. All other intellectual property rights (e.g., unregistered and registered trademarks and copyrights) are the property of their respective owners.

Visit [IXL.com](http://IXL.com) for more information

IXL Learning © 2021

# Unit 1

## Addition and Subtraction Within 20

### Big Idea 1: Strategies for Addition and Subtraction

Textbook section	IXL skills
<b>1-1:</b> 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"> <li>Add one-digit numbers 5C6</li> <li>Write addition sentences to describe pictures - sums to 20 L2M</li> <li>Write subtraction sentences to describe pictures - up to 18 F8W</li> </ul>
<b>1-2:</b> Relate Addition and Subtraction	1. Related addition facts YDX 2. Related subtraction facts P6Y 3. Fact families NSN
<b>1-3:</b> Make-a-Ten Strategies	<ul style="list-style-type: none"> <li><i>Coming soon:</i> Make 10 to add</li> </ul>
<b>1-4:</b> Relate Unknown Addends and Subtraction	1. Complete the addition sentence - sums to 20 8XR  <i>Also consider</i> <ul style="list-style-type: none"> <li>Subtract a one-digit number from a two-digit number up to 18 HSU</li> </ul>
<b>1-5:</b> 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"> <li>Balance addition equations - sums to 20 6LC</li> </ul>
<b>1-6:</b> 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"> <li>Skip-counting by twos LK2</li> </ul>

**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**

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**

1. Addition word problems - sums to 20 EN6
2. Subtraction word problems - up to 18 2FD

**1-12: Put Together/Take Apart Problems**

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**

1. Ways to make a number with addition - sums to 20 9NA
2. Ways to subtract - up to 20 89K

*Also consider*

- 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
<b>2-1:</b> Ones, Tens, Hundreds	1. Hundreds chart LHN
<b>2-2:</b> Draw Quick Tens and Quick Hundreds	1. Add multiples of 10 NPQ
<b>2-3:</b> 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
<b>2-4:</b> 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"> <li>Count by tens and hundreds Z8G</li> </ul>
<b>2-5:</b> Compare Numbers Within 200	1. Comparing numbers up to 100 G7F  <i>Also consider</i> <ul style="list-style-type: none"> <li>Put numbers up to 100 in order LK6</li> </ul>

### Big Idea 2: Add 2-Digit Numbers

Textbook section	IXL skills
<b>2-6:</b> Explore 2-Digit Addition	1. Addition word problems - up to two digits XAT
<b>2-7:</b> 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
<b>2-11:</b> Buy with Pennies and Dimes	<ol style="list-style-type: none"> <li>1. Count money up to \$2 - pennies, dimes, and dollar bills only N5Q</li> </ol>
<b>2-12:</b> Pennies, Nickels, and Dimes	<ol style="list-style-type: none"> <li>1. Skip-counting by fives VHG</li> <li>2. Count money - pennies, nickels, and dimes only AVN</li> </ol>
<b>2-13:</b> Fluency: Addition Within 100	<ol style="list-style-type: none"> <li>1. Add money - up to \$1 6X3</li> </ol>

**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
<b>3-1:</b> Measure Length	1. Measure using a centimeter ruler 7WA
<b>3-2:</b> 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"> <li>Equal sides D6K</li> </ul>
<b>3-3:</b> Estimate and Measure	1. Perimeter of rectangles NEY
<b>3-4:</b> Draw, Estimate, and Measure	1. Perimeter NP9
<b>3-5:</b> 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"> <li>Identify faces of three-dimensional shapes QSR</li> </ul>

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

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



**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
- 

**3-9:** Focus on Mathematical Practices

1. Compose two-dimensional shapes QPK

*Also consider*

- Find the next shape in a repeating pattern PE8
-

# Unit 4

## Subtract 2-Digit Numbers

### Big Idea 1: Totals of Mixed Coins and Bills

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

### Big Idea 2: Multidigit Subtraction Strategies

Textbook section	IXL skills
<b>4-3:</b> Addends and Subtraction	1. How much more to make a dollar? V9L
<b>4-4:</b> Subtraction Word Problems	1. Subtraction word problems - up to two digits UFU 2. Write the subtraction sentence - up to two digits ZQH
<b>4-5:</b> 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"> <li>Subtract multiples of 10 2Q6</li> </ul>
<b>4-6:</b> 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
<b>4-12:</b> Word Problems with Addition and Subtraction	<ol style="list-style-type: none"> <li>1. Add and subtract money - up to \$1: word problems N5Y</li> </ol>
<b>4-13:</b> Equations with Greater Numbers	<ol style="list-style-type: none"> <li>1. Fact families - up to 100 WJ7</li> </ol>
<b>4-14:</b> Practice Addition and Subtraction	<ol style="list-style-type: none"> <li>1. Add and subtract numbers up to 100 JDT</li> </ol> <p><i>Also consider</i></p> <ul style="list-style-type: none"> <li>• Addition and subtraction - ways to make a number - up to 100 8WA</li> <li>• Which sign (+ or -) makes the number sentence true? K7X</li> </ul>

**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
<b>5-1:</b> 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"> <li>Match analog and digital clocks: to the hour BCR</li> </ul>
<b>5-2:</b> 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"> <li>Match digital clocks and times 36N</li> <li>Match analog clocks and times D9K</li> <li>Time words: o'clock, half, quarter 5TA</li> </ul>

### Big Idea 2: Picture Graphs

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

## Big Idea 3: Bar Graphs

Textbook section	IXL skills
<b>5-5:</b> Introduce Bar Graphs	1. Which bar graph is correct? BMG
<b>5-6:</b> Read Bar Graphs	1. Interpret bar graphs I RPD 2. Interpret bar graphs II 8CH
<b>5-7:</b> Solve Problems Using a Bar Graph	1. Use bar graphs to solve problems SVS  <i>Also consider</i> • Which table is correct? 89J
<b>5-8:</b> Collect and Graph Data	1. Convert between bar graphs and tables 6WP
<b>5-9:</b> Make Graphs and Interpret Data	1. Create bar graphs 6KD
<b>5-10:</b> 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
<b>6-1:</b> Count Numbers to 1,000	1. Place value models - up to hundreds PBX  <i>Also consider</i> <ul style="list-style-type: none"> <li>Place value - up to hundreds BDF</li> </ul>
<b>6-2:</b> Place Value	1. Convert between standard and expanded form DZB  <i>Also consider</i> <ul style="list-style-type: none"> <li>Convert to/from a number - up to hundreds HUX</li> <li>Convert from expanded form - up to hundreds LG5</li> </ul>
<b>6-3:</b> Compare Numbers Within 999	1. Comparing numbers up to 1,000 XF9  <i>Also consider</i> <ul style="list-style-type: none"> <li>Put numbers up to 1,000 in order 3N2</li> <li>Greatest and least - word problems - up to 1,000 6QX</li> </ul>
<b>6-4:</b> Count by Ones and by Tens	1. Count forward - up to 1,000 88P 2. Count forward by tens - up to 1,000 B86 3. Writing numbers up to 1,000 in words - convert words to digits JKD 4. Writing numbers up to 1,000 in words - convert digits to words VPQ  <i>Also consider</i> <ul style="list-style-type: none"> <li>Number lines - up to 1,000 KFQ</li> </ul>
<b>6-5:</b> Add Ones, Tens, and Hundreds	1. Add multiples of 100 85Z  <i>Also consider</i> <ul style="list-style-type: none"> <li>Add multiples of 10 or 100 RCJ</li> </ul>

## Big Idea 2: Adding to 1,000

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

## Big Idea 3: 3-Digit Subtraction

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



## Big Idea 4: 3-Digit Addition and Subtraction

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

# Unit 7

## Arrays, Equal Shares, and Adding or Subtracting Lengths

### Big Idea 1: Arrays and Equal Shares

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

### Big Idea 2: Relate Addition and Subtraction to Length

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



**7-6:** Focus on Mathematical Practices

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