

## Welcome, Educators!

As you plan for this year, we hope that *Math in Focus*<sup>®</sup> and the Singapore Math<sup>®</sup> approach will provide effective strategies for focusing and differentiating instruction. The framework below is designed to help you focus your planning.

### Using the Essential Content Framework

To move forward this fall, we recommend beginning with the content from the current grade. Review this framework against your school's and state's specific goals, and in collaboration with administrators and your colleagues across grades, to determine where you want to add new content or prior-year review.

As you reach the priority topics shown below, as well as the topics that address your specific priorities, you may want to reinforce prerequisite knowledge. The third column suggests where you can find support from the prior grade. If the third column is empty, it means that students learned the prerequisites earlier this grade, or several grades in the past.

When you reach content that is *not* listed as priority content, you can take several paths to give students a targeted grounding:

- Combine some content from that section into a related priority section.
- Teach a mini-lesson on that topic, with the Learn activities and practice, possibly using learning stations.
- Use these topics to extend concepts within a related section.

### Evaluating Readiness

We recommend using the Recall Prior Knowledge and Quick Check to get a sense of students' readiness for each chapter and to identify areas to dig into more deeply as you move through grade-level content. You can also administer chapter Pre-Tests; we recommend emphasizing the diagnostic and formative nature of these to provide the most supportive learning environment.

### From Engagement to Mastery

Students should start with engaging, hands-on learning experiences to the greatest possible extent. Using the Concrete-Pictorial-Abstract (CPA) approach, you may want students to use physical math manipulatives throughout the lessons and as a strategic resource to solve non-routine problems. The goal is for students to grow as problem solvers and as mathematicians.

We look forward to supporting you on this worthwhile journey.

**The Math in Focus<sup>®</sup> Team**

## Math in Focus © 2015 Grade 3

Priority standards were identified through Achieve the Core.\*

Standards in *italics* were further selected by International Center for Leadership in Education.\*\*

Grade 3 Section	Priority Standards	Prior Learning
<b>Chapter 1 Numbers to 10,000</b>		
1.1 Counting	Not identified as a Priority Standard. See teaching suggestions above.	
1.2 Place Value	Not identified as a Priority Standard. See teaching suggestions above.	
1.3 Comparing and Ordering Numbers	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 2 Mental Math and Estimation</b>		
2.1 Mental Addition	Not identified as a Priority Standard. See teaching suggestions above.	
2.2 Mental Subtractions	Not identified as a Priority Standard. See teaching suggestions above.	
2.3 More Mental Addition	Not identified as a Priority Standard. See teaching suggestions above.	
2.4 <i>Rounding Numbers to Estimate</i>	<i>3.OA.D Solve problems involving the four operations, and identify and explain patterns in arithmetic.**</i>	
2.5 Using Front-End Estimation	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 3 Addition up to 10,000</b>		
3.1 Addition Without Regrouping	Not identified as a Priority Standard. See teaching suggestions above.	
3.2 Addition With Regrouping in Hundreds	Not identified as a Priority Standard. See teaching suggestions above.	
3.3 Addition With Regrouping in Ones, Tens, and Hundreds	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 4 Subtraction up to 10,000</b>		
4.1 Subtraction Without Regrouping	Not identified as a Priority Standard. See teaching suggestions above.	
4.2 Subtraction With Regrouping in Hundreds and Thousands	Not identified as a Priority Standard. See teaching suggestions above.	
4.3 Subtraction With Regrouping in Ones, Tens, Hundreds, and Thousands	Not identified as a Priority Standard. See teaching suggestions above.	
4.4 Subtraction Across Zeros	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 5 Using Bar Models: Addition and Subtraction</b>		
5.1 <i>Real-World Problems: Addition and Subtraction</i>	<i>3.OA.D Solve problems involving the four operations, and identify and explain patterns in arithmetic.</i>	<i>Grade 2 Lesson 4.1 Grade 2 Lesson 4.2 Grade 2 Lesson 4.3</i>

Grade 3 Section	Priority Standards	Prior Learning
<b>Chapter 6 Multiplication Tables of 6, 7, 8, and 9</b>		
6.1 <i>Multiplication Properties</i>	<p><i>3.OA.A Represent and solve problems involving multiplication and division.</i></p> <p><i>3.OA.B Understand properties of multiplication and the relationship between multiplication and division.</i></p> <p><i>3.OA.C Multiply and divide within 100.</i></p>	<i>Grade 2 Lesson 5.1</i>
6.2 <i>Multiply by 6</i>	<p><i>3.OA.A Represent and solve problems involving multiplication and division.</i></p> <p><i>3.OA.B Understand properties of multiplication and the relationship between multiplication and division.</i></p> <p><i>3.OA.C Multiply and divide within 100.</i></p> <p><i>3.NBT.A Use place value understanding and properties of operations to perform multi-digit arithmetic.+</i></p>	<p><i>Grade 2 Lesson 6.1</i></p> <p><i>Grade 2 Lesson 6.2</i></p> <p><i>Grade 2 Lesson 6.3</i></p> <p><i>Grade 2 Lesson 6.4</i></p> <p><i>Grade 2 Lesson 6.5</i></p> <p><i>Grade 2 Lesson 15.1</i></p> <p><i>Grade 2 Lesson 15.2</i></p> <p><i>Grade 2 Lesson 15.3</i></p> <p><i>Grade 2 Lesson 15.4</i></p>
6.3 <i>Multiply by 7</i>	<p><i>3.OA.A Represent and solve problems involving multiplication and division.</i></p> <p><i>3.OA.B Understand properties of multiplication and the relationship between multiplication and division.</i></p> <p><i>3.OA.C Multiply and divide within 100.</i></p> <p><i>3.NBT.A Use place value understanding and properties of operations to perform multi-digit arithmetic.+</i></p>	<p><i>Grade 2 Lesson 6.1</i></p> <p><i>Grade 2 Lesson 6.2</i></p> <p><i>Grade 2 Lesson 6.3</i></p> <p><i>Grade 2 Lesson 6.4</i></p> <p><i>Grade 2 Lesson 6.5</i></p> <p><i>Grade 2 Lesson 15.1</i></p> <p><i>Grade 2 Lesson 15.2</i></p> <p><i>Grade 2 Lesson 15.3</i></p> <p><i>Grade 2 Lesson 15.4</i></p>
6.4 <i>Multiply by 8</i>	<p><i>3.OA.A Represent and solve problems involving multiplication and division.</i></p> <p><i>3.OA.B Understand properties of multiplication and the relationship between multiplication and division.</i></p> <p><i>3.OA.C Multiply and divide within 100.</i></p> <p><i>3.NBT.A Use place value understanding and properties of operations to perform multi-digit arithmetic.+</i></p>	<p><i>Grade 2 Lesson 6.1</i></p> <p><i>Grade 2 Lesson 6.2</i></p> <p><i>Grade 2 Lesson 6.3</i></p> <p><i>Grade 2 Lesson 6.4</i></p> <p><i>Grade 2 Lesson 6.5</i></p> <p><i>Grade 2 Lesson 15.1</i></p> <p><i>Grade 2 Lesson 15.2</i></p> <p><i>Grade 2 Lesson 15.3</i></p> <p><i>Grade 2 Lesson 15.4</i></p>
6.5 <i>Multiply by 9</i>	<p><i>3.OA.A Represent and solve problems involving multiplication and division.</i></p> <p><i>3.OA.B Understand properties of multiplication and the relationship between multiplication and division.</i></p> <p><i>3.OA.C Multiply and divide within 100.</i></p> <p><i>3.NBT.A Use place value understanding and properties of operations to perform multi-digit arithmetic.+</i></p>	<p><i>Grade 2 Lesson 6.1</i></p> <p><i>Grade 2 Lesson 6.2</i></p> <p><i>Grade 2 Lesson 6.3</i></p> <p><i>Grade 2 Lesson 6.4</i></p> <p><i>Grade 2 Lesson 6.5</i></p> <p><i>Grade 2 Lesson 15.1</i></p> <p><i>Grade 2 Lesson 15.2</i></p> <p><i>Grade 2 Lesson 15.3</i></p> <p><i>Grade 2 Lesson 15.4</i></p>

<b>Grade 3 Section</b>	<b>Priority Standards</b>	<b>Prior Learning</b>
6.6 Division: Finding the Number of Items in Each Group	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100.	Grade 2 Lesson 5.2 Grade 2 Lesson 5.3
6.7 Division: Making Equal Groups	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100.	Grade 2 Lesson 5.2 Grade 2 Lesson 5.3
<b>Chapter 7 Multiplication</b>		
7.1 Mental Multiplication	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100. 3.NBT.A Use place value understanding and properties of operations to perform multi-digit arithmetic.+	Grade 2 Lesson 6.1 Grade 2 Lesson 6.2 Grade 2 Lesson 6.3 Grade 2 Lesson 6.4 Grade 2 Lesson 6.5
7.2 Multiplying Without Regrouping	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100.	
7.3 Multiplying Ones, Tens, and Hundreds with Regrouping	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100. 3.NBT.A Use place value understanding and properties of operations to perform multi-digit arithmetic.+	
<b>Chapter 8 Division</b>		
8.1 Mental Division	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100.	Grade 2 Lesson 15.5

<b>Grade 3 Section</b>	<b>Priority Standards</b>	<b>Prior Learning</b>
8.2 Quotient and Remainder	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100.	
8.3 Odd and Even Numbers	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100.	Grade 2 Lesson 6.6
8.4 Division Without Remainder and Regrouping	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100.	
8.5 Division with Regrouping in Tens and Ones	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100.	
<b>Chapter 9 Using Bar Models: Multiplication and Division</b>		
9.1 Real-World Problems: Multiplication	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100.	Grade 2 Lesson 16.1
9.2 Real-World Problems: Two-Step Problems with Multiplication	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100. 3.OA.D Solve problems involving the four operations, and identify and explain patterns in arithmetic.	
9.3 Real-World Problems: Division	3.OA.A Represent and solve problems involving multiplication and division. 3.OA.B Understand properties of multiplication and the relationship between multiplication and division. 3.OA.C Multiply and divide within 100.	Grade 2 Lesson 16.2

Grade 3 Section	Priority Standards	Prior Learning
<i>9.4 Real-World Problems: Two-Step Problems with Division</i>	<p><i>3.OA.A Represent and solve problems involving multiplication and division.</i></p> <p><i>3.OA.B Understand properties of multiplication and the relationship between multiplication and division.</i></p> <p><i>3.OA.C Multiply and divide within 100.</i></p> <p><i>3.OA.D Solve problems involving the four operations, and identify and explain patterns in arithmetic.</i></p>	
<b>Chapter 10 Money</b>		
10.1 Addition	Not identified as a Priority Standard. See teaching suggestions above.	
10.2 Subtraction	Not identified as a Priority Standard. See teaching suggestions above.	
10.3 Real-World Problems: Money	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 11 Metric Length, Mass, and Volume</b>		
11.1 Meters and Centimeters	Not identified as a Priority Standard. See teaching suggestions above.	
11.2 Kilometers and Meters	Not identified as a Priority Standard. See teaching suggestions above.	
11.3 Kilograms and Grams	Not identified as a Priority Standard. See teaching suggestions above.	
11.4 Liters and Milliliters	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 12 Real-World Problems: Measurement</b>		
<i>12.1 Real-World Problems: One-Step Problems</i>	<p><i>3.OA.A Represent and solve problems involving multiplication and division.</i></p> <p><i>3.OA.B Understand properties of multiplication and the relationship between multiplication and division.</i></p> <p><i>3.OA.C Multiply and divide within 100.</i></p>	<p><i>Grade 2 Lesson 13.5</i></p> <p><i>Grade 2 Lesson 16.3</i></p>
<i>12.2 Real-World Problems: Two-Step Problems</i>	<p><i>3.OA.A Represent and solve problems involving multiplication and division.</i></p> <p><i>3.OA.B Understand properties of multiplication and the relationship between multiplication and division.</i></p> <p><i>3.OA.C Multiply and divide within 100.</i></p>	
<b>Chapter 13 Bar Graphs and Line Plots</b>		
<i>13.1 Making Bar Graphs with Scales</i>	<i>3.MD.B Represent and interpret data.+</i>	<i>Grade 2 Lesson 17.4</i>
<i>13.2 Reading and Interpreting Bar Graphs</i>	<i>3.MD.B Represent and interpret data.+</i>	<i>Grade 2 Lesson 17.4</i>
<i>13.3 Line Plots</i>	<i>3.MD.B Represent and interpret data.+</i>	<i>Grade 2 Lesson 17.4</i>

Grade 3 Section	Priority Standards	Prior Learning
<b>Chapter 14 Fractions</b>		
14.1 Understanding Fractions	3.NF.A Develop understanding of fractions as numbers. 3.G.A Reason with shapes and their attributes.+	Grade 2 Lesson 12.1
14.2 Understanding Equivalent Fractions	3.NF.A Develop understanding of fractions as numbers. 3.G.A Reason with shapes and their attributes.+	Grade 2 Lesson 12.1
14.3 More Equivalent Fractions	3.NF.A Develop understanding of fractions as numbers. 3.G.A Reason with shapes and their attributes.+	Grade 2 Lesson 12.1
14.4 Comparing Fractions	3.NF.A Develop understanding of fractions as numbers. 3.G.A Reason with shapes and their attributes.+	Grade 2 Lesson 12.2
14.5 Fractions as a Whole or Set	3.NF.A Develop understanding of fractions as numbers. 3.G.A Reason with shapes and their attributes.+	
<b>Chapter 15 Customary Length, Weight, and Capacity</b>		
15.1 Measuring Length	Not identified as a Priority Standard. See teaching suggestions above.	
15.2 Measuring Weight	Not identified as a Priority Standard. See teaching suggestions above.	
15.3 Measuring Capacity	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 16 Time and Measurement</b>		
16.1 Telling Time	Not identified as a Priority Standard. See teaching suggestions above.	
16.2 Converting Hours and Minutes	Not identified as a Priority Standard. See teaching suggestions above.	
16.3 Adding Hours and Minutes	Not identified as a Priority Standard. See teaching suggestions above.	
16.4 Subtracting Hours and Minutes	Not identified as a Priority Standard. See teaching suggestions above.	
16.5 Elapsed Time	Not identified as a Priority Standard. See teaching suggestions above.	
16.6 Measuring Temperature	Not identified as a Priority Standard. See teaching suggestions above.	
16.7 Real-World Problems: Time and Temperature	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 17 Angles and Lines</b>		
17.1 Understanding and Identifying Angles	Not identified as a Priority Standard. See teaching suggestions above.	
17.2 Right Angles	Not identified as a Priority Standard. See teaching suggestions above.	
17.3 Perpendicular Lines	Not identified as a Priority Standard. See teaching suggestions above.	



Grade 3 Section	Priority Standards	Prior Learning
17.4 Parallel Lines	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 18 Two-Dimensional Shapes</b>		
18.1 Classifying Polygons	Not identified as a Priority Standard. See teaching suggestions above.	
18.2 Congruent Figures	Not identified as a Priority Standard. See teaching suggestions above.	
18.3 Symmetry	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 19 Area and Perimeter</b>		
19.1 Area	Not identified as a Priority Standard. See teaching suggestions above.	
19.2 Square Units (cm <sup>2</sup> and in. <sup>2</sup> )	Not identified as a Priority Standard. See teaching suggestions above.	
19.3 Square Units (m <sup>2</sup> and ft <sup>2</sup> )	Not identified as a Priority Standard. See teaching suggestions above.	
19.4 <i>Perimeter and Area</i>	<i>3.MD.C Geometric measurement: understand concepts of area and relate area to multiplication and to addition.+</i>	
19.5 More Perimeter	Not identified as a Priority Standard. See teaching suggestions above.	

\* Priority standards clusters were identified as Priority Instructional Content through Achieve the Core by Student Achievement Partners, Pre-Publication Draft, May 2020. Full documents are available at [AchieveTheCore.org](http://AchieveTheCore.org).

\*\*International Center for Leadership in Education (ICLE) selected further priority standards, in most cases within the clusters called out by Achieve the Core.

+ Indicates standard selected by ICLE that is not within an Achieve the Core cluster.



## Math in Focus © 2020 Grade 4

Priority standards were identified through Achieve the Core.\*

Standards in *italics* were further selected by International Center for Leadership in Education.\*\*

Grade 4 Section	Priority Standards	Prior Learning
<b>Chapter 1 Working with Whole Numbers</b>		
1.1 Numbers to 100,000	4.NBT.A Generalize place value understanding for multi-digit whole numbers.**	Grade 3 Lesson 1.2
1.2 Comparing Numbers to 100,000	4.NBT.A Generalize place value understanding for multi-digit whole numbers.	Grade 3 Lesson 1.3
1.3 Adding and Subtracting Multi-Digit Numbers	4.NBT.B Use place value understanding and properties of operations to perform multi-digit arithmetic.+	Grade 3 Lesson 3.3 Grade 3 Lesson 4.3
<b>Chapter 2 Estimation and Number Theory</b>		
2.1 Estimation	4.OA.A Use the four operations with whole numbers to solve problems.	Grade 3 Lesson 2.4
2.2 Factors	Not identified as a Priority Standard. See teaching suggestions above.	
2.3 Multiples	4.NBT.A Generalize place value understanding for multi-digit whole numbers.	
2.4 Multiplying Using Models	4.NBT.B Use place value understanding and properties of operations to perform multi-digit arithmetic.+	Grade 3 Lesson 6.1
<b>Chapter 3 Whole Number Multiplication and Division</b>		
3.1 Multiplying by a 1-Digit Number	4.NBT.A Generalize place value understanding for multi-digit whole numbers.* 4.NBT.B Use place value understanding and properties of operations to perform multi-digit arithmetic.+ 4.OA.A Use the four operations with whole numbers to solve problems.	Grade 3 Lesson 6.2 Grade 3 Lesson 6.3 Grade 3 Lesson 6.4 Grade 3 Lesson 6.5 Grade 3 Lesson 7.1 Grade 3 Lesson 7.2 Grade 3 Lesson 7.3
3.2 Multiplying by a 2-Digit Number	4.NBT.A Generalize place value understanding for multi-digit whole numbers. 4.NBT.B Use place value understanding and properties of operations to perform multi-digit arithmetic.+ 4.OA.A Use the four operations with whole numbers to solve problems.	Grade 3 Lesson 6.2 Grade 3 Lesson 6.3 Grade 3 Lesson 6.4 Grade 3 Lesson 6.5 Grade 3 Lesson 7.1 Grade 3 Lesson 7.2 Grade 3 Lesson 7.3
3.3 Modeling Division by a 1-Digit Number	4.NBT.A Generalize place value understanding for multi-digit whole numbers. 4.NBT.B Use place value understanding and properties of operations to perform multi-digit arithmetic.+	Grade 3 Lesson 6.6 Grade 3 Lesson 6.7
3.4 Dividing by a 1-Digit Number	4.NBT.B Use place value understanding and properties of operations to perform multi-digit arithmetic.+	Grade 3 Lesson 8.1 Grade 3 Lesson 8.2 Grade 3 Lesson 8.4 Grade 3 Lesson 8.5

Grade 4 Section	Priority Standards	Prior Learning
<i>3.5 Real-World Problems: Multiplication and Division</i>	<i>4.OA.A Use the four operations with whole numbers to solve problems.</i>	Grade 3 Lesson 9.1 Grade 3 Lesson 9.3
<b>Chapter 4 Tables and Line Graphs</b>		
4.1 Making and Interpreting a Table	Not identified as a Priority Standard. See teaching suggestions above.	
4.2 Using a Table	Not identified as a Priority Standard. See teaching suggestions above.	
4.3 Line Graphs	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 5 Data and Probability</b>		
5.1 Average	Not identified as a Priority Standard. See teaching suggestions above.	
5.2 Median, Mode, and Range	Not identified as a Priority Standard. See teaching suggestions above.	
5.3 Stem-and-Leaf Plots	Not identified as a Priority Standard. See teaching suggestions above.	
5.4 Outcomes	Not identified as a Priority Standard. See teaching suggestions above.	
5.5 Probability as a Fraction	4.NF.A Extend understanding of fraction equivalence and ordering.	Grade 3 Lesson 14.1 Grade 3 Lesson 14.2
<i>5.6 Real-World Problems: Data and Probability</i>	4.NF.A Extend understanding of fraction equivalence and ordering. <i>4.OA.A Use the four operations with whole numbers to solve problems.</i>	Grade 3 Lesson 14.1 Grade 3 Lesson 14.2
<b>Chapter 6 Fractions and Mixed Numbers</b>		
6.1 Adding Fractions	4.NF.A Extend understanding of fraction equivalence and ordering.	
6.2 Subtracting Fractions	4.NF.A Extend understanding of fraction equivalence and ordering.	
6.3 Mixed Numbers	Not identified as a Priority Standard. See teaching suggestions above.	
6.4 Improper Fractions	Not identified as a Priority Standard. See teaching suggestions above.	
6.5 Renaming Improper Fractions and Mixed Numbers	Not identified as a Priority Standard. See teaching suggestions above.	
6.6 Renaming Whole Numbers When Adding and Subtracting Fractions	4.NF.A Extend understanding of fraction equivalence and ordering.	
<i>6.7 Fraction of a Set</i>	<i>4.NF.B Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.+</i>	Grade 3 Lesson 14.5

Grade 4 Section	Priority Standards	Prior Learning
6.8 Real-World Problems: Fractions	4.NF.B Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.+ 4.OA.A Use the four operations with whole numbers to solve problems.	
6.9 Line Plots with Fractions of a Unit	4.MD.B Represent and interpret data.+	
<b>Chapter 7 Decimals</b>		
7.1 Understanding Tenths	4.NF.C Understand decimal notation for fractions, and compare decimal fractions.	
7.2 Understanding Hundredths	4.NF.C Understand decimal notation for fractions, and compare decimal fractions.	
7.3 Comparing Decimals	4.NF.C Understand decimal notation for fractions, and compare decimal fractions.	
7.4 Rounding Decimals	Not identified as a Priority Standard. See teaching suggestions above.	
7.5 Fractions and Decimals	4.NF.A Extend understanding of fraction equivalence and ordering. 4.NF.C Understand decimal notation for fractions, and compare decimal fractions.	
<b>Chapter 8 Adding and Subtracting Decimals</b>		
8.1 Adding Decimals	4.NBT.A Generalize place value understanding for multi-digit whole numbers. 4.NBT.B Use place value understanding and properties of operations to perform multi-digit arithmetic.+ 4.NF.C Understand decimal notation for fractions, and compare decimal fractions.	
8.2 Subtracting Decimals	4.NBT.A Generalize place value understanding for multi-digit whole numbers. 4.NBT.B Use place value understanding and properties of operations to perform multi-digit arithmetic.+	
8.3 Real-World Problems: Decimals	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 9 Angles</b>		
9.1 Understanding and Measuring Angles	Not identified as a Priority Standard. See teaching suggestions above.	
9.2 Drawing Angles to 180°	Not identified as a Priority Standard. See teaching suggestions above.	
9.3 Turns and Angle Measures	Not identified as a Priority Standard. See teaching suggestions above.	

Grade 4 Section	Priority Standards	Prior Learning
<b>Chapter 10 Perpendicular and Parallel Line Segments</b>		
10.1 Drawing Perpendicular Line Segments	Not identified as a Priority Standard. See teaching suggestions above.	
10.2 Drawing Parallel Line Segments	Not identified as a Priority Standard. See teaching suggestions above.	
10.3 Horizontal and Vertical Lines	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 11 Squares and Rectangles</b>		
11.1 Squares and Rectangles	Not identified as a Priority Standard. See teaching suggestions above.	
11.2 <i>Properties of Squares and Rectangles</i>	<i>4.OA.A Use the four operations with whole numbers to solve problems.</i>	
<b>Chapter 12 Conversion of Measurements</b>		
12.1 Length	Not identified as a Priority Standard. See teaching suggestions above.	
12.2 Mass, Weight, and Volume	Not identified as a Priority Standard. See teaching suggestions above.	
12.3 Time	Not identified as a Priority Standard. See teaching suggestions above.	
12.4 Real-World Problems: Measurement	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 13 Area and Perimeter</b>		
13.1 <i>Area of a Rectangle</i>	<i>4.MD.A Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.+</i>	Grade 3 Lesson 19.1
13.2 <i>Rectangles and Squares</i>	<i>4.MD.A Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.+</i>	Grade 3 Lesson 19.2 Grade 3 Lesson 19.3
13.3 <i>Composite Figures</i>	<i>4.MD.A Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.+</i> <i>4.OA.A Use the four operations with whole numbers to solve problems.</i>	
13.4 <i>Using Formulas for Area and Perimeter</i>	<i>4.OA.A Use the four operations with whole numbers to solve problems.</i> <i>4.MD.A Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.+</i>	Grade 3 Lesson 19.4
<b>Chapter 14 Symmetry</b>		
14.1 <i>Identifying Lines of Symmetry</i>	<i>4.G.A Draw and identify lines and angles, and classify shapes by properties of their lines and angles.+</i>	

Grade 4 Section	Priority Standards	Prior Learning
14.2 Rotational Symmetry	Not identified as a Priority Standard. See teaching suggestions above.	
14.3 Making Symmetric Shapes and Patterns	<i>4.G.A Draw and identify lines and angles, and classify shapes by properties of their lines and angles.+</i>	
<b>Chapter 15 Tessellations</b>		
15.1 Identifying Tessellations	Not identified as a Priority Standard. See teaching suggestions above.	
15.2 More Tessellations	Not identified as a Priority Standard. See teaching suggestions above.	

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## Math in Focus © 2020 Grade 5

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Grade 5 Section	Priority Standards	Prior Learning
<b>Chapter 1 Whole Numbers</b>		
1.1 Numbers to 10,000,000	5.NBT.A Understand the place value system.*	Grade 4 Lesson 1.1
1.2 Place Value	5.NBT.A Understand the place value system.	Grade 4 Lesson 1.1
1.3 Comparing Numbers to 10,000,000	5.NBT.A Understand the place value system.	Grade 4 Lesson 1.2
1.4 Rounding and Estimating	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 2 Whole Number Multiplication and Division</b>		
2.1 Using a Calculator	<i>5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.**</i>	
2.2 Multiplying by Tens, Hundreds, or Thousands	5.NBT.A Understand the place value system. <i>5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.</i>	
2.3 Multiplying by Powers of Ten	5.NBT.A Understand the place value system.	
2.4 Multiplying by 2-Digit Numbers	<i>5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.</i>	Grade 4 Lesson 3.2
2.5 Dividing by Tens, Hundreds, or Thousands	5.NBT.A Understand the place value system. <i>5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.</i>	
2.6 Dividing by 2-Digit Numbers	<i>5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.</i>	Grade 4 Lesson 3.4
2.7 Order of Operations	Not identified as a Priority Standard. See teaching suggestions above.	
2.8 Real-World Problems: Multiplication and Division	<i>5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.</i>	Grade 4 Lesson 3.5
<b>Chapter 3 Fractions and Mixed Numbers</b>		
3.1 Adding Unlike Fractions	<i>5.NF.A Use equivalent fractions as a strategy to add and subtract fractions.</i>	Grade 4 Lesson 6.1
3.2 Subtracting Unlike Fractions	<i>5.NF.A Use equivalent fractions as a strategy to add and subtract fractions.</i>	Grade 4 Lesson 6.2
3.3 Fractions, Mixed Numbers, and Division Expressions	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	Grade 4 Lesson 6.3 Grade 4 Lesson 6.4 Grade 4 Lesson 6.5
3.4 Expressing Fractions, Division Expressions, and Mixed Numbers as Decimals	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions	Grade 4 Lesson 7.5
3.5 Adding Mixed Numbers	5.NF.A Use equivalent fractions as a strategy to add and subtract fractions.	Grade 4 Lesson 3.1 Grade 4 Lesson 6.3

Grade 5 Section	Priority Standards	Prior Learning
3.6 Subtracting Mixed Numbers	5.NF.A Use equivalent fractions as a strategy to add and subtract fractions.	Grade 4 Lesson 3.2 Grade 4 Lesson 6.3
3.7 Real-World Problems: Fractions and Mixed Numbers	5.NF.A Use equivalent fractions as a strategy to add and subtract fractions. 5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	Grade 4 Lesson 6.8
<b>Chapter 4 Multiplying and Dividing Fractions and Mixed Numbers</b>		
4.1 Multiplying Proper Fractions	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	
4.2 Real-World Problems: Multiplying with Proper Fractions	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	
4.3 Multiplying Improper Fractions by Fractions	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	
4.4 Multiplying Mixed Numbers and Whole Numbers	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	
4.5 Real-World Problems: Multiplying with Mixed Numbers	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	
4.6 Dividing Fractions and Whole Numbers	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	
4.7 Real-World Problems: Multiplying and Dividing with Fractions	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	
<b>Chapter 5 Algebra</b>		
5.1 Number Patterns and Relationships	5.OA.B Analyze patterns and relationships.+	
5.2 Using Letters as Numbers	Not identified as a Priority Standard. See teaching suggestions above.	
5.3 Simplifying Algebraic Expressions	Not identified as a Priority Standard. See teaching suggestions above.	
5.4 Inequalities and Equations	Not identified as a Priority Standard. See teaching suggestions above.	
5.5 Real-World Problems: Algebra	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 6 Area</b>		
6.1 Finding the Area of a Rectangle with Fractional Side Lengths	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	Grade 4 Lesson 13.1 Grade 4 Lesson 13.4
6.2 Base and Height of a Triangle	Not identified as a Priority Standard. See teaching suggestions above.	



Grade 5 Section	Priority Standards	Prior Learning
6.3 Finding the Area of a Triangle	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 7 Ratio</b>		
7.1 Finding Ratio	Not identified as a Priority Standard. See teaching suggestions above.	
7.2 Equivalent Ratios	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	
7.3 Real-World Problems: Ratios	Not identified as a Priority Standard. See teaching suggestions above.	
7.4 Ratios in Fraction Form	Not identified as a Priority Standard. See teaching suggestions above.	
7.5 Comparing Three Quantities	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	
7.6 Real-World Problems: More Ratios	5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	
<b>Chapter 8 Decimals</b>		
8.1 <i>Understanding Thousandths</i>	5.NBT.A Understand the place value system. 5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.	Grade 4 Lesson 7.1 Grade 4 Lesson 7.2
8.2 Comparing and Rounding Decimals	5.NBT.A Understand the place value system.	Grade 4 Lesson 7.3 Grade 4 Lesson 7.4
8.3 Rewriting Decimals as Fractions and Mixed Numbers	5.NBT.A Understand the place value system.	Grade 4 Lesson 7.5
<b>Chapter 9 Multiplying and Dividing Decimals</b>		
9.1 <i>Multiplying Decimals</i>	5.NBT.A Understand the place value system. 5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.	
9.2 <i>Multiplying by Tens, Hundreds, or Thousands</i>	5.NBT.A Understand the place value system. 5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.	
9.3 <i>Dividing Decimals</i>	5.NBT.A Understand the place value system. 5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.	
9.4 <i>Dividing by Tens, Hundreds, or Thousands</i>	5.NBT.A Understand the place value system. 5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.	
9.5 <i>Estimating Decimals</i>	5.NBT.A Understand the place value system. 5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.	
9.6 Converting Metric Units	Not identified as a Priority Standard. See teaching suggestions above.	

Grade 5 Section	Priority Standards	Prior Learning
<i>9.7 Real-World Problems: Decimals</i>	5.NBT.A Understand the place value system. 5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths	
<b>Chapter 10 Percent</b>		
10.1 Percent	Not identified as a Priority Standard. See teaching suggestions above.	
10.2 Expressing Fractions as Percents	Not identified as a Priority Standard. See teaching suggestions above.	
10.3 Percent of a Number	Not identified as a Priority Standard. See teaching suggestions above.	
10.4 Real-World Problems: Percent	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 11 Graphs and Probability</b>		
11.1 Making and Interpreting Line Plots	Not identified as a Priority Standard. See teaching suggestions above.	
11.2 Making and Interpreting Double Bar Graphs	Not identified as a Priority Standard. See teaching suggestions above.	
<i>11.3 Graphing an Equation</i>	5.G.A Graph points on the coordinate plane to solve real-world and mathematical problems.	Grade 4 Lesson 4.3
<i>11.4 Comparing Data Using Line Graphs</i>	5.OA.B Analyze patterns and relationships.+	Grade 4 Lesson 4.3
11.5 Combinations	Not identified as a Priority Standard. See teaching suggestions above.	
11.6 Theoretical Probability and Experimental Probability	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 12 Angles</b>		
12.1 Angles on a Line	Not identified as a Priority Standard. See teaching suggestions above.	
12.2 Angles at a Point	Not identified as a Priority Standard. See teaching suggestions above.	
12.3 Vertical Angles	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 13 Properties of Triangles and Four-Sided Figures</b>		
13.1 Classifying Triangles	Not identified as a Priority Standard. See teaching suggestions above.	
13.2 Measures of Angles of a Triangle	Not identified as a Priority Standard. See teaching suggestions above.	
13.3 Right, Isosceles, and Equilateral Triangles	Not identified as a Priority Standard. See teaching suggestions above.	
13.4 Triangle Inequalities	Not identified as a Priority Standard. See teaching suggestions above.	

Grade 5 Section	Priority Standards	Prior Learning
13.5 Parallelogram, Rhombus, and Trapezoid	Not identified as a Priority Standard. See teaching suggestions above.	
<b>Chapter 14 Surface Area and Volume</b>		
14.1 Building Solids Using Unit Cubes	Not identified as a Priority Standard. See teaching suggestions above.	
14.2 Drawing Cubes and Rectangular Prisms	Not identified as a Priority Standard. See teaching suggestions above.	
14.3 Prisms and Pyramids	Not identified as a Priority Standard. See teaching suggestions above.	
14.4 Nets and Surface Area	5.NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.	Grade 4 Lesson 13.1 Grade 4 Lesson 13.2
14.5 Understanding and Measuring Volume	5.MD.C Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	
14.6 Volume of a Rectangular Prism and Liquid	5.MD.C Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	
14.7 Volume of Composite Solids	5.MD.C Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	

\* Priority standards clusters were identified as Priority Instructional Content through Achieve the Core by Student Achievement Partners, Pre-Publication Draft, May 2020. Full documents are available at [AchieveTheCore.org](http://AchieveTheCore.org).

\*\*International Center for Leadership in Education (ICLE) selected further priority standards, in most cases within the clusters called out by Achieve the Core.

+ Indicates standard selected by ICLE that is not within an Achieve the Core cluster.