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Pacing Guide

## Mathematics $\mathbf{4}^{\text {th }} \mathbf{G}$

## Unit 1 - Place Value and Rounding of Multi- Digit Total Number of Instructional Days <br> 14 Whole Numbers

Common Core Standard Covered
Major Topics/Concepts
Number of days

- Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70=10$ by applying concepts of place value and division.
- Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons


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## 1-3 Forms of Multi-Digit Numbers <br> CCSS.MATH.CONTENT.4.NBT. 2

## 1-4 Comparing Multi-Digit Whole Numbers

CCSS.MATH.CONTENT.4.NBT. 2

1-5 Rounding Multi-Digit Whole Numbers

CCSS.MATH.CONTENT.4.NBT. 3

- Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons
- Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons
- Use place value understanding to round multi-digit whole numbers to any place.


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## Unit 2 - Multi-Digit Whole Number Addition and Subtraction

## Total Number of Instructional Days

Common Core Standard Covered

2-1 Multi-Digit Whole Number Addition

CCSS.MATH.CONTENT.4.OA. 3 CCSS.MATH.CONTENT.4.NBT. 1 CCSS.MATH.CONTENT.4.NBT. 2 CCSS.MATH.CONTENT.4.NBT. 4

## 2-2 Multi-Digit Whole Number Subtraction

## Major Topics/Concepts

- Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70=10$ by applying concepts of place value and division.
- Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, $=$, and < symbols to record the results of comparisons.
- Fluently add and subtract multi-digit whole numbers using the standard algorithm.
- Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
- Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70=10$ by applying concepts of place value and division.
- Read and write multi-digit whole numbers using base-ten numerals,


## Number

 of Days
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CCSS.MATH.CONTENT.4.NBT. 2 CCSS.MATH.CONTENT.4.NBT. 4

## 2-3 Solving Two-Step Subtraction Word Problems

CCSS.MATH.CONTENT.4.OA. 3 CCSS.MATH.CONTENT.4.NBT. 1 CCSS.MATH.CONTENT.4.NBT. 2 CCSS.MATH.CONTENT.4.NBT. 4
number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, $=$, and < symbols to record the results of comparisons.

- Fluently add and subtract multi-digit whole numbers using the standard algorithm.
- Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
- Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70=10$ by applying concepts of place value and division.
- Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>,=$, and < symbols to record the results of comparisons.
- Fluently add and subtract multi-digit whole numbers using the standard algorithm.
- Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.


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# 2-4 Solving Multi-Step Addition and Subtraction Word Problems 

CCSS.MATH.CONTENT.4.OA. 3<br>CCSS.MATH.CONTENT.4.NBT. 1<br>CCSS.MATH.CONTENT.4.NBT. 2<br>CCSS.MATH.CONTENT.4.NBT. 4

## 2-5 Creating Word Problems Involving Addition and Subtraction

CCSS.MATH.CONTENT.4.OA. 3 CCSS.MATH.CONTENT.4.NBT. 1 CCSS.MATH.CONTENT.4.NBT. 2
CCSS.MATH.CONTENT.4.NBT. 4

- Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70=10$ by applying concepts of place value and division.
- Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, $=$, and < symbols to record the results of comparisons.
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- Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>_{,}=$, and < symbols to record the results of comparisons.
- Fluently add and subtract multi-digit whole numbers using the standard algorithm.
- Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using


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equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

## Unit 3 - Multi-Digit Whole Number Multiplication <br> Total Number of Instructional Days

## Common Core Standard Covered

3-1 Area and Perimeter Models

CCSS.MATH.CONTENT.4.OA. 1
CCSS.MATH.CONTENT.4.OA. 2
CCSS.MATH.CONTENT.4.MD. 3

3-2 Multiplying by 10, 100, and 1,000

CCSS.MATH.CONTENT.4.NBT. 5

## Major Topics/Concepts

- Interpret a multiplication equation as a comparison, e.g., interpret $35=$ $5 \times 7$ as a statement that 35 is times as many as 7 and 7 times as many as 5 . Represent verbal statements of multiplicative comparisons as multiplication equations.
- Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
- Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.
- Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.


## Number of Days

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## 3-3 Multiplying Two-Digit by OneDigit Number

CCSS.MATH.CONTENT.4.NBT. 5

- Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- Interpret a multiplication equation as a comparison, e.g., interpret $35=5 \times$ 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5 . Represent verbal statements of multiplicative comparisons as multiplication equations.
- Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
- Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.


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- Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Unit 4 - Multi-Digit Whole Number Division

Common Core Standard Covered

4-1 Division Using Area Models
CCSS.MATH.CONTENT.4.NBT. 6
$\begin{array}{ll}\text { 4-2 Whole Number Quotients and } \\ & \text { Remainders }\end{array}$
CCSS.MATH.CONTENT.4.NBT. 6

Total Number of Instructional Days
21

## Major Topics/Concepts

- Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.


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CCSS.MATH.CONTENT.4.OA. 4

## 4-4 Prime and Composite Numbers

CCSS.MATH.CONTENT.4.OA. 4

4-5 Division of Multiples of 10,100 , and 1,000 by Single-Digit Numbers

CCSS.MATH.CONTENT.4.OA. 2 CCSS.MATH.CONTENT.4.NBT. 6

## 4-6 Three and Four-Digit Division with Divisors of 2, 3, 4, and 5

CCSS.MATH.CONTENT.4.OA. 2 CCSS.MATH.CONTENT.4.NBT. 6
that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.

- Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.
- Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
- Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
- Solve real-world and mathematical problems by writing and solving equations of the form $x+p=q$ and $p x=q$ for cases in which $p, q$ and $x$ are all nonnegative rational numbers.


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4-7 Division with a Zero in the Dividend or in the Quotient<br>CCSS.MATH.CONTENT.4.OA. 2 CCSS.MATH.CONTENT.4.NBT. 6

4-8 Division with Divisors of 6, 7, 8, and 9

CCSS.MATH.CONTENT.4.OA. 2 CCSS.MATH.CONTENT.4.NBT. 6

## 4-9 Solve One-Step Division Word Problems

CCSS.MATH.CONTENT.4.OA. 2 CCSS.MATH.CONTENT.4.OA. 3 CCSS.MATH.CONTENT.4.NBT. 6

- Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
- Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.
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- Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
- Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using


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equations with a letter standing for the unknown quantity. Assess the

## Common Core Standard Covered

## 5-1 Decomposing Fractions to Show Equivalence

CCSS.MATH.CONTENT.4.NF.3a
CCSS.MATH.CONTENT.4.NF.3b
CCSS.MATH.CONTENT.4.NF.4a

## Unit 5 - Fractions

reasonableness of answers using mental computation and estimation strategies including rounding.

- Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.


## Total Number of Instructional Days

Major Topics/Concepts

- Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
- Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: $3 / 8=1 / 8+1 / 8+1 / 8 ; 3 / 8=1 / 8+2 / 8 ; 21 / 8=1+1+$ $1 / 8=8 / 8+8 / 8+1 / 8$.
- Understand a fraction $a / b$ as a multiple of $1 / b$. For example, use a visual fraction model to represent $5 / 4$ as the product $5 \times(1 / 4)$, recording the conclusion by the equation $5 / 4=5 \times(1 / 4)$.


## Number

 of Days
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5-2 Fraction Equivalence Using Multiplication and Division<br>CCSS.MATH.CONTENT.4.NF. 1 CCSS.MATH.CONTENT.4.NF.3a

## 5-3 Comparing Fractions

CCSS.MATH.CONTENT.4.NF. 2

- Explain why a fraction $a / b$ is equivalent to a fraction $(n \times a) /(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
- Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
- Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1 / 2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>,=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.
- Explain why a fraction $a / b$ is equivalent to a fraction $(n \times a) /(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
- Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
- Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.


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## 5-5 Fractions Greater Than One

CCSS.MATH.CONTENT.4.NF. 2 CCSS.MATH.CONTENT.4.NF.3b CCSS.MATH.CONTENT.4.NF.3c CCSS.MATH.CONTENT.4.NF.4a

## 5-6 Addition Involving Mixed Numbers

CCSS.MATH.CONTENT.4.NF.3c

- Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1 / 2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>,=$, or <, and justify the conclusions, e.g., by using a visual fraction model.
- Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: $3 / 8=1 / 8+1 / 8+1 / 8 ; 3 / 8=1 / 8+2 / 8 ; 21 / 8=1+1+$ $1 / 8=8 / 8+8 / 8+1 / 8$.
- Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
- Understand a fraction $a / b$ as a multiple of $1 / b$. For example, use a visual fraction model to represent $5 / 4$ as the product $5 \times(1 / 4)$, recording the conclusion by the equation $5 / 4=5 \times(1 / 4)$.
- Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.


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## 5-7 Subtraction Involving Mixed Numbers

CCSS.MATH.CONTENT.4.NF.3c

- Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
- Understand a fraction $a / b$ as a multiple of $1 / b$. For example, use a visual fraction model to represent $5 / 4$ as the product $5 \times(1 / 4)$, recording the conclusion by the equation $5 / 4=5 \times(1 / 4)$.
- Understand a multiple of $a / b$ as a multiple of $1 / b$, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express $3 \times(2 / 5)$ as $6 \times(1 / 5)$, recognizing this product as $6 / 5$. (In general, $n \times(a / b)=(n \times a) / b$.)


## Total Number of Instructional Days

## Major Topics/Concepts

- Express a fraction with denominator 10 as an equivalent fraction with

CCSS.MATH.CONTENT.4.NF. 5 CCSS.MATH.CONTENT.4.NF. 6 CCSS.MATH.CONTENT.4.NF. 7

## Common Core Standard Covered

## 6-1 Tenths

denominator 100, and use this technique to add two fractions with respective denominators 10 and $100 .{ }^{2}$ For example, express $3 / 10$ as $30 / 100$, and add $3 / 10+4 / 100=34 / 100$.

- Use decimal notation for fractions with denominators 10 or 100 . For

Number of Days

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## 6-2 Hundredths

CCSS.MATH.CONTENT.4.NF. 5 CCSS.MATH.CONTENT.4.NF. 6 CCSS.MATH.CONTENT.4.NF. 7

## 6-3 Fractions to Decimals and Decimals to Fractions

CCSS.MATH.CONTENT.4.NF. 1 CCSS.MATH.CONTENT.4.NF. 5
CCSS.MATH.CONTENT.4.NF. 6 CCSS.MATH.CONTENT.4.NF. 7
example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

- Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, =, or <, and justify the conclusions, e.g., by using a visual model.
- Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and $100 .{ }^{2}$ For example, express $3 / 10$ as $30 / 100$, and add 3/10 + 4/100 = 34/100.
- Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.
- Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, =, or <, and justify the conclusions, e.g., by using a visual model.
- Explain why a fraction $a / b$ is equivalent to a fraction $(n \times a) /(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
- Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and $100 .{ }^{2}$ For example, express $3 / 10$ as $30 / 100$, and add 3/10 + 4/100 = 34/100.
- Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.


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## 6-4 Comparing and Ordering Decimals

CCSS.MATH.CONTENT.4.NF. 7

## 6-5 Addition with Tenths and Hundredths

CCSS.MATH.CONTENT.4.NF.3c CCSS.MATH.CONTENT.4.NF. 5 CCSS.MATH.CONTENT.4.NF. 6

- Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, =, or <, and justify the conclusions, e.g., by using a visual model.
- Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>,=$, or <, and justify the conclusions, e.g., by using a visual model.
- Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
- Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and $100 .{ }^{2}$ For example, express $3 / 10$ as $30 / 100$, and add $3 / 10+4 / 100=34 / 100$.
- Use decimal notation for fractions with denominators 10 or 100 . For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.
- Express a fraction with denominator 10 as an equivalent fraction with example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.
- Use the four operations to solve word problems involving distances,
denominator 100, and use this technique to add two fractions with respective denominators 10 and $100 .{ }^{2}$ For example, express $3 / 10$ as $30 / 100$, and add $3 / 10+4 / 100=34 / 100$.
- Use decimal notation for fractions with denominators 10 or 100 . For

CCSS.MATH.CONTENT.4.NF. 5 CCSS.MATH.CONTENT.4.NF. 6 CCSS.MATH.CONTENT.4.MD.A. 2
6-6 Money as Decimal Numbers

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intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

## Unit 7 - Geometry

## Common Core Standard Covered

7-1 The Undefined Terms in Geometry

CCSS.MATH.CONTENT.4.G. 1

7-2 Angles
CCSS.MATH.CONTENT.4.G. 1

Total Number of Instructional Days

## Major Topics/Concepts

- Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers.
- Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
- Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.
- Draw points, lines, line segments, rays, angles (right, acute, obtuse),

Number
of Days
and perpendicular and parallel lines. Identify these in twodimensional figures.

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## 7-3 Parallel and Perpendicular Lines

CCSS.MATH.CONTENT.4.G. 1

7-4 Measuring and Sketching Angles
CCSS.MATH.CONTENT.4.MD.C. 5 CCSS.MATH.CONTENT.4.MD.C. 6

7-5 Addition of Angle Measures CCSS.MATH.CONTENT.4.MD.C. 7

## 7-6 Symmetry in 2D Figures

CCSS.MATH.CONTENT.4.G. 1 CCSS.MATH.CONTENT.4.G. 3

## 7-7 Triangles

CCSS.MATH.CONTENT.4.G. 2

- Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in twodimensional figures.
- Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement.
- Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
- Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.
- Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in twodimensional figures.
- Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.
- Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.


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## 7-8 Quadrilaterals

CCSS.MATH.CONTENT.4.G. 2

Unit 8 - Unit Conversion and Measurements

Common Core Standard Covered

8-1 Measurements of Length 8-1a The Metric Units of Length CCSS.MATH.CONTENT.4.MD.A. 1

8-1b The Customary Units of Length
CCSS.MATH.CONTENT.4.MD.A. 1
including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a twocolumn table. For example, know that 1 ft is 12 times as long as 1 in . Express the length of a 4 ft snake as 48 in . Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), $(3,36), \ldots$

- Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

Total Number of Instructional Days

Number of Days

- Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a twocolumn table. For example, know that 1 ft is 12 times as long as 1 in . Express the length of a 4 ft snake as 48 in . Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...
- Know relative sizes of measurement units within one system of units


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8-2 Measurements of Weight 8-2a The Metric Units of Weight CCSS.MATH.CONTENT.4.MD.A. 1

8-3 Measurements of Capacity 8-2a The Metric Units of Capacity
CCSS.MATH.CONTENT.4.MD.A. 1

- Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a twocolumn table. For example, know that 1 ft is 12 times as long as 1 in . Express the length of a 4 ft snake as 48 in . Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...
- Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a twocolumn table. For example, know that 1 ft is 12 times as long as 1 in . Express the length of a 4 ft snake as 48 in . Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...
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- Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-


## 8-2b The Customary Units of Capacity <br> CCSS.MATH.CONTENT.4.MD.A. 1

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column table. For example, know that 1 ft is 12 times as long as 1 in . Express the length of a 4 ft snake as 48 in . Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...

## 8-4 Measurements of Time <br> CCSS.MATH.CONTENT.4.MD.A. 1

## 8-5 Solve Word Problems Involving Measurements

CCSS.MATH.CONTENT.4.MD.A. 1 CCSS.MATH.CONTENT.4.MD.A. 2

- Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a twocolumn table. For example, know that 1 ft is 12 times as long as 1 in . Express the length of a 4 ft snake as 48 in . Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...
- Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a twocolumn table. For example, know that 1 ft is 12 times as long as 1 in . Express the length of a 4 ft snake as 48 in . Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), $\ldots$
- Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.


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