Common Core Math Standards 3rd Quarter Study Guide 3rd Grade

Detailed Descriptions of Each Standard
Examples of Every Standard Practice Problems Included
Pictorial Representations
Standards Listed on Every Page
Bonus Posters Included
70 Jam-Packed Pages of Guidance

Miller’s Flip Flops TPT Store
MCC3.NF.1
Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b. Grade 3 expectations in this domain are limited to fractions with denominators of 2, 3, 4, 6, and 8.

Fraction – a part of a whole when the whole is divided or partitioned into equal parts

Numerator – the part of the fraction that you are talking about; the top number of a fraction

Example: In the fraction 1/6, 1 is the numerator and means 1 of the 6 equal parts.

Denominator – the part of the fraction that represents the total number of parts; the bottom number of a fraction

Example: In the fraction 1/8, the denominator is 8, and means that there are 8 equal pieces in the whole thing.
MCC3.NF.1
Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into $b$ equal parts; understand a fraction $a/b$ as the quantity formed by $a$ parts of size $1/b$. Grade 3 expectations in this domain are limited to fractions with denominators of 2, 3, 4, 6, and 8.

Understand fractional parts must be equal-sized.

Example

These are thirds.

Non-Example

These are NOT thirds.
MCC3.NF.1
Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into $b$ equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by $a$ parts of size $\frac{1}{b}$. Grade 3 expectations in this domain are limited to fractions with denominators of 2, 3, 4, 6, and 8.
MCC3.NF.1
Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into $b$ equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by $a$ parts of size $\frac{1}{b}$. Grade 3 expectations in this domain are limited to fractions with denominators of 2, 3, 4, 6, and 8.
MCC3.NF.1
Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into $b$ equal parts; understand a fraction $a/b$ as the quantity formed by $a$ parts of size $1/b$. Grade 3 expectations in this domain are limited to fractions with denominators of 2, 3, 4, 6, and 8.

Practice Partitioning into Halves
MCC3.NF.1
Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into $b$ equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by $a$ parts of size $\frac{1}{b}$. Grade 3 expectations in this domain are limited to fractions with denominators of 2, 3, 4, 6, and 8.
MCC3.NF.1
Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into $b$ equal parts; understand a fraction $a/b$ as the quantity formed by $a$ parts of size $1/b$. Grade 3 expectations in this domain are limited to fractions with denominators of 2, 3, 4, 6, and 8.

Practice Partitioning into Fourths
MCC3.NF.1
Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b. Grade 3 expectations in this domain are limited to fractions with denominators of 2, 3, 4, 6, and 8.

Practice Partitioning into Sixths
MCC3.NF.1
Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into $b$ equal parts; understand a fraction $a/b$ as the quantity formed by $a$ parts of size $1/b$. Grade 3 expectations in this domain are limited to fractions with denominators of 2, 3, 4, 6, and 8.

Practice Partitioning into Eighths
MCC3.NF.2
Understand a fraction as a number on the number line; represent fractions on a number line diagram.

a. Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into $b$ equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.

b. Represent a fraction $a/b$ on a number line diagram by marking off $a$ lengths $1/b$ from 0. Recognize that the resulting interval has size $a/b$ and that its endpoint locates the number $a/b$ on the number line.

Grade 3 expectations in this domain are limited to fractions with denominators of 2, 3, 4, 6, and 8.
Fractions on a number line

- Between 0 and 1/2
- Between 1/2 and 1
- Between 0 and 1/3
- Between 1/3 and 2/3
- Between 0 and 1/4
- Between 1/4 and 3/4
- Between 0 and 1

MCC3.NF.2
Fractions on a Number Line

0 \[\frac{1}{6}\] \[\frac{2}{6}\] \[\frac{3}{6}\] \[\frac{4}{6}\] \[\frac{5}{6}\] \[\frac{6}{6}\]

0 \[\frac{1}{8}\] \[\frac{2}{8}\] \[\frac{3}{8}\] \[\frac{4}{8}\] \[\frac{5}{8}\] \[\frac{6}{8}\] \[\frac{7}{8}\] \[\frac{8}{8}\]

MCC3.NF.2
Fractions on a Number Line

Partition the number line into fourths. Circle 3/4.

Partition the number line into thirds. Circle 1/3.

Partition the number line into eighths. Circle 5/8.

MCC3.NF.2
Fractions on a Number Line

Partition the number line into halves. Circle 2/2.

Partition the number line into sixths. Circle 4/6.

Partition the number line into fourths. Circle 1/4.

MCC3.NF.2
MCC3.NF.3
Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.

b. Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model.

c. Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.

d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.
MCC3.NF.3
Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

<table>
<thead>
<tr>
<th>Fraction</th>
<th>Fraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>1/3</td>
<td>1/3</td>
</tr>
<tr>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
<td>1/6</td>
<td>1/6</td>
</tr>
<tr>
<td>1/8</td>
<td>1/8</td>
</tr>
</tbody>
</table>

Page 16
MCC3.NF.3
Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

Compare Fractions (>, <, or =)

1. $\frac{1}{2}$ ____ 1/3
2. $\frac{4}{6}$ ____ 2/6
3. $\frac{2}{3}$ ____ 1/4
4. $\frac{1}{3}$ ____ 1/6
5. $\frac{4}{8}$ ____ 1/2
6. $\frac{3}{4}$ ____ 3/6
7. $\frac{5}{6}$ ____ 5/8
8. $\frac{4}{4}$ ____ 4/8
9. $\frac{1}{8}$ ____ 1/2
10. $\frac{4}{6}$ ____ 2/3
MCC3.NF.1
MCC3.NF.2
MCC3.NF.3

Students are expected to be able to solve word problems involving all operations, including fractions.

Following are some sample fraction word problems to practice this skill.

Kristen and Melissa are eating a Hershey bar. Kristen has eaten 3/4 of her candy bar. Melissa has eaten 1/3 of her candy bar. Who has eaten more of their candy bar?

Molly ate 1/8 of her ice cream sundae. What fraction of her ice cream sundae does she have left to eat?
Ridge used $\frac{6}{8}$ of his crayons to color his picture. Devon used $\frac{7}{8}$ of his crayons to color his picture. Which boy used more crayons to color their picture?

Madison found two flowers on the ground. The pink flower had $\frac{2}{3}$ of its petals still attached. The white flower had $\frac{2}{4}$ of its petals still attached. Which flower had more petals still attached?

In Harleigh’s class at school, $\frac{5}{8}$ of the students are girls and $\frac{3}{8}$ of the students are boys. Are there more boys or girls in Harleigh’s class?
MCC3.MD.1
Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

Minutes around the clock represented on a number line.

Example of how to use a clock number line (elapsed time ruler)
Step 1: Mark the beginning time.
Step 2: Mark the ending time.
Step 3: Make 5 minute and 1 minute leaps for the space in between the two times.
Step 4: Skip count your fives and add your ones to get your total elapsed time (time interval).

Beginning Time: 8:10, Ending Time: 8:47

(37 minutes)
MCC3.MD.1
Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

Minutes around the clock represented on a number line.

Example of how to use a clock number line (elapsed time ruler)
Step 1: Mark the beginning time.
Step 2: If you don’t know the ending time, do leaps to find your ending time.
Step 3: Make 5 minute and 1 minute leaps for the minutes given to do the task.
Step 4: Mark your ending time.

Beginning Time: 2:05, Ending Time: ?
Takes 35 minutes to clean room.

(Ending time: 2:40)
MCC3.MD.1
Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

Remember to follow the steps.

Sarah walked one mile around the track. She started walking at 1:00 P.M. She finished walking one mile 15 minutes later. What time did Sarah finish walking one mile?

Beginning Time: 1:00, Ending Time: ?

(Ending time: 1:15 P.M.)
MCC3.MD.1
Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

Remember to follow the steps.
Work backwards for this one.

Jensen went to the post office to mail a package. He has been standing in line for 30 minutes. It is now 3:55 P.M. What time did Jensen get in line at the post office?

Beginning Time: ?   Ending Time: 3:55
Amount of time in line: 30 minutes

(Beginning time: 3:20 P.M.)
MCC3.MD.1
Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

Try these out on your own.
Remember to follow the steps.

Dani saw a flash of lightning in the sky at 7:20 P.M. Then she saw another flash of lightning 25 minutes later. What time did Dani see the second flash of lightning?

Beginning Time:          Ending Time:  
Amount of time in between:
MCC3.MD.1
Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

Try these out on your own.
Remember to follow the steps.

Willow is cooking pasta. She starts cooking the pasta at 6:10 P.M. The pasta is finished cooking at 6:25 P.M. How long did Willow spend cooking the pasta?

Beginning Time: Ending Time:
Amount of time in between:
MCC3.MD.1
Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

Try these out on your own.
Remember to follow the steps.

The third graders went on a field trip to see the local symphony. It took 15 minutes to get to the symphony. They arrived at 12:30 P.M. What time did they leave their school to go to the symphony?

Beginning Time:          Ending Time:  
Amount of time in between:
MCC3.MD.1
Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

Try these out on your own.
Remember to follow the steps.

Mrs. Miller’s class eats lunch from 11:02 A.M. to 11:32 A.M. Then they take a 10 minute restroom break. What time does Mrs. Miller’s class finish with their restroom break?

Beginning Time:          Ending Time:
Amount of time in between:
MCC3.MD.2
Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

gram (g) - a unit of measurement used to measure the mass of an object, equivalent to the weight of a large paper clip. A gram is used to weigh lighter things.

kilogram (kg) - a unit of measure used to measure the mass of an object, equivalent to a one liter bottle of water or ginger ale. A kilogram is equivalent to 1000 grams. A kilogram is used to weigh heavier things.

liter (l) – a unit of measure used to measure capacity (liquid) of an object, equivalent to a one liter bottle of water or ginger ale. A 2-liter bottle of coke is what most people buy from the store.
MCC3.MD.2
Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

Picture Examples of Grams

Smallest to Largest
1 gram
2 grams
5 grams
10 grams
20 grams
50 grams

Yellow = 5 grams
Orange = 10 grams
Brown = 20 grams
How Many Grams?
Pictures of Objects

15 Game Pieces – 20g
5 Wooden Clothes Pins – 33g
5 Wooden Square Tiles – 15g
Big Black Sharpie – 19g
1 Glue Stick – 18g
1 Expo Marker – 17g
How Many Grams?
Pictures of Objects

1 Pencil – 5g

1 Foam Base Ten (Ten) – 1g

1 Base Ten (Hundred) – 10g

20 Base Ten (Ones) – 2g

2 Small Blue Cubes (Blank Dice) – 9g

1 Unifix Cube – 3g
MCC3.MD.2
Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

Picture Examples of 1 Kilogram

Green Kilogram
In the back

Just ONE Bottle
MCC3.MD.2
Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

Picture Examples of 1 Kilogram

- 400 U.S. Pennies
- 2 Loaves of Bread
- 7 Apples
MCC3.MD.2
Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

Picture Examples of 1 Liter
MCC3.MD.2
Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

Picture Examples of 1 Liter

Just ONE Bottle
MCC3.MD.4
Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.

Measuring to the Nearest Quarter Inch

This is just like fractions on a number line. Use this ruler to practice measuring.

Line plot – A method of visually displaying a distribution of data values where each data value is shown as a dot or mark above the number line. Also known as a dot plot.

Objects in Math Box

Measurement in Inches
MCC3.MD.4
Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.

Measuring to the Nearest Quarter Inch

Follow these steps to measure accurately.

**Step 1:** Always line your object you are measuring and your ruler up at 0 (the end of your ruler – 0 is not always marked).

**Step 2:** Look at the ruler where the object stops. Which quarter inch is it closest to? Remember 2/4 is the same as 1/2 (equivalent fractions).

**Step 3:** Look at the last whole number on the ruler before your object stopped and make sure to include that in your final answer.
MCC3.MD.4
Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.

Measuring to the Nearest Quarter Inch

Measurement Examples

- 2 ¼ inch
- 1 ½ inch
- 2 ¾ inch
MCC3.MD.4
Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.

Measuring to the Nearest Quarter Inch

Measurement Examples – Your Turn

Bumper to Bumper
MCC3.MD.4
Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.

Measuring to the Nearest Quarter Inch

Measurement Examples – Your Turn

Measure the Handle
MCC3.MD.4
Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.

Line Plot
Sticker Lengths

Length (in inches)

1. How many stickers are 1 ½ inches long?
2. How many stickers are longer than 1 ¼ inches?
3. What is the length of the longest sticker?
4. What does the number line in the line plot show?
MCC3.MD.4
Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.

Line Plot
Colored Pencil Lengths

1. How many colored pencils are 5 inches long?
2. How many colored pencils are shorter than 5 3/4 inches?
3. What is the length of the longest colored pencil?
4. What does the number line in the line plot show?
MCC3.MD.5
Recognize area as an attribute of plane figures and understand concepts of area measurement.

a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” area, and can be used to measure area.

b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.

Area

Area – the number of square units that will fit inside a plane figure. To determine the area, simply count the square units in the shape.

One square = 1 square unit
Five squares = 5 square units
Eighteen squares = 18 square units

Area = Total number of square units
MCC3.MD.5
Recognize area as an attribute of plane figures and understand concepts of area measurement.

a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” area, and can be used to measure area.

b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.

Area Examples

Area = 9 square units

Area = 12 square units
MCC3.MD.5
Recognize area as an attribute of plane figures and understand concepts of area measurement.

a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” area, and can be used to measure area.

b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.

Area Examples – Your Turn

Area = ___ square units

Area = ___ square units
MCC3.MD.6
Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

Area Examples

Connect the dots to make squares and then count the squares.

Area = 8 square units

Area = 18 square cm
MCC3.MD.6
Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

Area Examples – Your Turn

Connect the dots to make squares and then count the squares.

Area = ___ square units

Area = ___ square cm
MCC3.MD.7

Relate area to the operations of multiplication and addition.

a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths $a$ and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.

d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.
Area

2

\[ \begin{array}{ccc}
1 & 2 & 3 \\
4 & 5 & 6 \\
\end{array} \]

Count the Squares or Multiply

A = 6 square units
A = 6 square units

6 in.

4 in.

A = 24 square inches

2 in.

A = 4 square units
MCC3.MD.7
Relate area to the operations of multiplication and addition.
a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

Area Examples
Create this shape with square tiles to show that the total square units is the same as multiplying one side by the other side.

\[ 3 \times 4 = 12 \]
Area = 12 square units

You Try It

\[ \_ \times \_ = \_ \]
Area = \_ square units
MCC3.MD.7
Relate area to the operations of multiplication and addition.
b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

Area Example
Jenny is trying to figure out the area of her candy bar. Using multiplication, what would the area of her candy bar be in square cm?

\[ \text{Area} = \text{length} \times \text{width} \]

\[ _____ \times _____ = _____ \]

Area = _____ square cm
MCC3.MD.7
Relate area to the operations of multiplication and addition.
b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

Area Example

The garden is a rectangle. The width is 10 feet and the length is 3 feet. What is the area of the garden?

\[ \text{Area} = \ \ \ \ \ \ ]

\[ _____ \times _____ = _____ \]

Area = _____ square ft
MCC3.MD.7
Relate area to the operations of multiplication and addition.
c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths $a$ and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.

Area Example – Distributive Property

\[
\begin{align*}
6 \times 8 & = (6 \times 5) + (6 \times 3) \\
& = 30 + 18 \\
& = 48
\end{align*}
\]

Area = 48
MCC3.MD.7
Relate area to the operations of multiplication and addition.
c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a \times b and a \times c. Use area models to represent the distributive property in mathematical reasoning.

Area Example – Distributive Property

\[
\begin{array}{cccc}
\hline
& & \times & \\
& \times & & \\
\hline
\end{array}
\]

______ \times ______
(______ \times ______) + (______ \times ______)
______ + ______
______

Area = ______
MCC3.MD.7
Relate area to the operations of multiplication and addition.
d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Rectilinear Area

1. Separate into rectangles and/or squares.
2. Calculate Area of each rectangle or square.
3. Add all the Areas to get Total Area.
MCC3.MD.7
Relate area to the operations of multiplication and addition.
d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Area Example

Follow the Steps and It’s Easy 😊

A. Separate each figure into two rectangles.
B. Label the dimensions of the rectangles.
C. Find the area of the figure.

\[
\begin{align*}
\text{A. } & \text{Separate each figure into two rectangles.} \\
\text{B. } & \text{Label the dimensions of the rectangles.} \\
\text{C. } & \text{Find the area of the figure.}
\end{align*}
\]

\[
\begin{align*}
\text{area} & \quad 16 \text{ square units} \\
5 \times 2 & = 10 \quad \text{C} \\
2 \times 3 & = 6 \quad +\text{C} \\
10 + 6 & = 16 \quad \text{C}
\end{align*}
\]
MCC3.MD.7
Relate area to the operations of multiplication and addition.
d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Area Example

Follow the Steps and It’s Easy 😊
MCC3.MD.7
Relate area to the operations of multiplication and addition.

**d.** Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.

### Area Example

Students can decompose a rectilinear figure into different rectangles. They find the area of the figure by adding the areas of each of the rectangles together.

\[
\text{area is } 12 \times 3 + 8 \times 7 = 92 \text{ sq inches.}
\]
MCC3.MD.7
Relate area to the operations of multiplication and addition.
d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Area Word Problems
(Remember to Draw a Picture, a square or a rectangle to help you solve.)

Mr. Fisher’s garden is 8 feet long and 2 feet wide. What is the total area of Mr. Fisher’s garden?

Cynthia wants to cover her room with carpet. If she has a room with a length of 14 feet and a width of 6 feet, how many square feet of carpet would she need?

Jacob’s sandbox is 6 feet long and 5 feet wide. What is the area of the sandbox?
MCC3.MD.8
Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Gina is entering a bike race to raise money for the local animal shelter. She will collect one dollar for each km (1 penny for each 10 m) she rides. How much money will she collect if she completes the race by riding the route one time?

Perimeter = ________________
Perimeter Strategies

Leap Strategy
Line Strategy
Number Line Strategy
Add the Sides Strategy

P = 14
P = 14
P = 14
P = 14
MCC3.MD.8
Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Leap Strategy
Alex drew this shape on a piece of grid paper.

What is the perimeter of the shape?
Perimeter = __________________
MCC3.MD.8
Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Line Strategy
Alex drew this shape on a piece of grid paper.

What is the perimeter of the shape?
Perimeter = _______________
MCC3.MD.8
Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Number Line Strategy
Alex drew this shape on a piece of grid paper.

What is the perimeter of the shape?
Perimeter = _______________
MCC3.MD.8
Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Count the Sides Strategy
Alex drew this shape on a piece of grid paper.

What is the perimeter of the shape?
Perimeter = _______________
MCC3.MD.8
Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Perimeter = _____

Perimeter = _____

Perimeter = _____

Perimeter = _____
MCC3.MD.8
Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Perimeter = _____  Perimeter = _____
Perimeter = _____  Perimeter = _____
Perimeter = _____  Perimeter = _____
Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Perimeter = ________

Side C = _______
Side D = _______
Perimeter = _______

Perimeter = ________

Side A = _______
Side B = _______
Perimeter = _______
MCC3.MD.8
Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Perimeter = 36
Side G = _____

Perimeter = 34
Side b = _____
MCC3.MD.8
Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Mrs. Rios wants to put a wallpaper border around the room shown below. She will use 36 feet of wallpaper border. What is the unknown side length?

A rectangle has a length of 5 meters and a width of 8 meters. What is the perimeter of the rectangle? (Draw a shape to help you solve.)
Steps to Solve Story Problems

GET READY!

1. Read the Whole **PROBLEM**.
2. Underline the **QUESTION**.
3. Circle the Important **NUMBERS**.
4. Draw a **PICTURE**.
5. Reread the **PROBLEM**.
6. Check your **ANSWER**.
7. Write a Number **SENTENCE**.
8. Box the **ANSWER**.

**Callback Story Problem Fun**

Remember to make sure your answer makes sense and answers the question from the story problem.
This study guide is a culmination of all the Common Core Standards taught during the 3rd 9 weeks in 3rd Grade Math this year, in the format that it was taught with kid friendly terms they understand and use.

I created this file for my students to review for our system-wide end of the 9 weeks testing, in addition to providing my parents with a resource that is easy to understand so they can help their children when they are at home. We do not have a Common Core textbook yet, so this resource should prove invaluable to my parents during this transition.

I hope you find it just as useful, as I tried to make it kid & parent friendly, and also included lots of examples for practice.

Please check out my other Common Core Files and Resources at my TPT Store.  Miller’s Flip Flops TPT Store