



Mathematical Focus	Topic Goals
Multiplication and Division	Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal groups, arrays, and area models. Students will gain fluency of multiplication by identifying patterns in the products. Students will use the distributive property to break apart a large array into smaller arrays. Students will use the associative property to group three factors and multiply. During this MP, students will also use multiplication facts to divide.

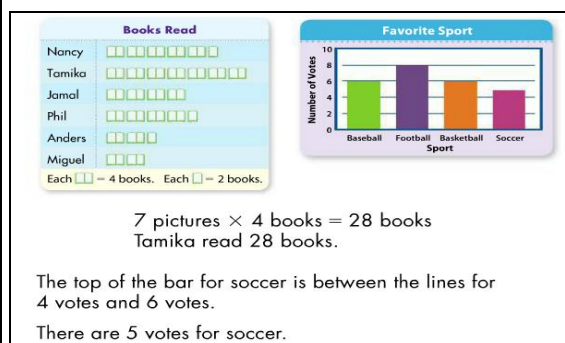
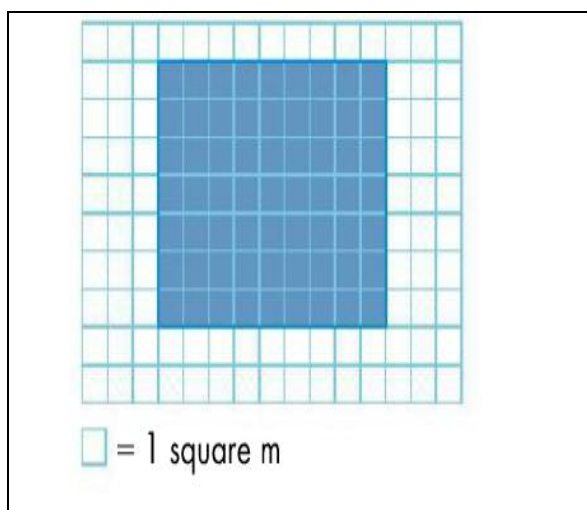


### Grade 3 – Marking Period 2

In marking period 2, student will continue to work on fluency of multiplication and division facts. They will also begin to develop a deep understanding of the concept of area beginning with concrete models and then moving to representational and abstract to understand how area is related to multiplication and addition. Students will also focus on reading and make scaled picture graphs and scaled bar graphs that represent a data set with several categories and then wrap up marking period 2 working on fluency with addition and subtraction within 1,000.

*Examples include:*

Counting Standard Units as seen below.



Working towards addition and subtraction fluency to 1,000 will include work with partial sums

**What You Think**

I need to find  $248 - 156$ .  
 $156$  is the same as  $100 + 50 + 6$ .  
 I can subtract each addend, starting with hundreds and ending with ones.  
 There are not enough tens, so I'll break apart 5 tens into 4 tens and 1 ten.

**What You Write**

$$248 - 100 = 148$$

$$148 - 40 = 108$$

$$108 - 10 = 98$$

$$98 - 6 = 92$$

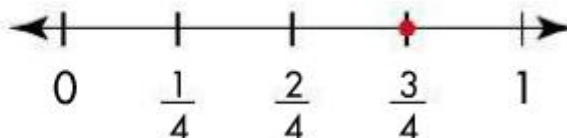
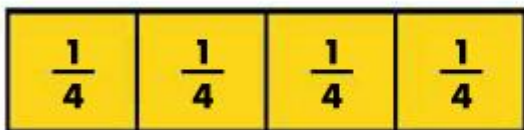
<b>Mathematical Focus</b>	<b>Topic Goals</b>
<b>Whole Numbers</b>	Use mental math to add and subtract. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations and or the relationship between addition and subtraction. Use rounding and compatible numbers to estimate a sum. Solve one-step and multi-step problems by modeling with math.
<b>Multiplication and Division</b>	Fluently multiply and divide within 100. Identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties of operations. For example observe that 4 times a number is always even and explain why 4 times a number can be decomposed into two equal addends.
<b>Measurement and Data</b>	Connect area to multiplication and addition. Use standard units in addition to standard measurement units to measure the area of a shape. Use graphs and tables such as bar graphs, picture graphs and frequency tables to solve, compare and interpret data.

## Grade 3—Marking Period 3

In the beginning of marking period 3 students explored place value patterns when multiplying by a multiple of 10. Two step word problems involving whole numbers was the focus for the latter half of the marking period. Finally, students explored fractions as numbers that can represent a portion of a whole or point on a number line. They used models and number sense to understand fraction equivalence and comparison.

*Examples include:*

### Fraction representations




Mathematical Focus	Topic Goals
<b>Whole Numbers</b>	Use varying model and strategies to multiply one-digit numbers by multiples of 10 in the range of 10-90 (e.g., $9 \times 80$ , $5 \times 60$ ).
<b>Multiplication and Division</b>	Solve two-step word problems using the four operations and represent these problems using a letter standing in for the unknown quantity
<b>Fractions</b>	Understand a fraction $\frac{1}{b}$ as a quantity formed by 1 part when a whole partitioned into $b$ equal parts. Understand fractions as a number on a number line. Explain equivalence of fraction in special cases, and compare fractions by reasoning about the size.
<b>Measurement and Data</b>	Show and tell time to nearest minute using analog and digital clocks. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction to measure quantities of time. Use standard measures to estimate liquid volume. Use standard units of measure to estimate the masses of solid objects.
<b>Geometry</b>	Identify quadrilaterals and use attribute to describe them. Classify shapes according to their attributes. Analyze and compare quadrilaterals and group them by their attributes.


## Grade 3 – Marking Period 4


In the last marking period, students will focus on attributes of two-dimensional shapes, especially quadrilaterals. Students learn that shapes in different categories may share attributes that place them in a larger category. Students will also relate fractions to partitioned shapes. The next topic will focus on recognizing perimeter as an attribute of polygons, finding perimeter using addition and multiplication, and finding an unknown side length. Students will distinguish the attribute of perimeter from the attribute of area by analyzing rectangles with the same perimeter and different areas or with the same area and different perimeters. Students will finish the year making connections from 3<sup>rd</sup> to 4<sup>th</sup> grade math by looking at place value relationships, multiplying by multiples of 10, and using models to multiply two digit numbers. These are just a few of the topics they will explore as they prepare for 4<sup>th</sup> grade.


*Examples include:*

In **3–6**, write as many special names as possible for each quadrilateral.

3. 


4. 

5. 


6. 

**Gus wants to put up a fence to make a dog park. He made two different designs. What is the perimeter of each dog park design? Which design should Gus use?**

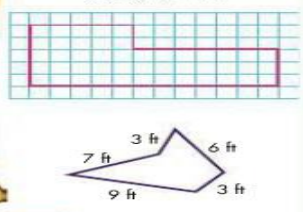


The distance around a figure is its **perimeter**.



The perimeter of the dog park needs to be at least 30 feet.

scale: 1 square = 1 ft



Mathematical Focus	Topic Goals
<b>Measurement and Data</b>	Solve real world and mathematical problems involving perimeter of polygons including finding the perimeters given the side lengths and finding an unknown side length.
<b>Geometry</b>	Identify quadrilaterals and use attributes to describe them. Classify shapes according to their attributes Analyze and compare quadrilaterals and group them by their attributes