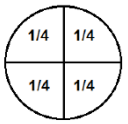
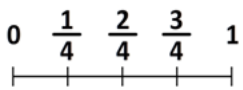
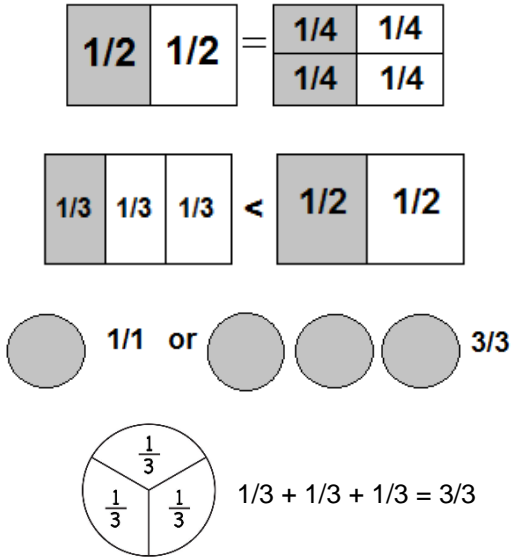
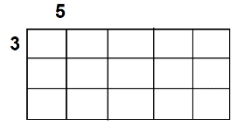


- O.A.- Operations and Algebraic Thinking
- N.B.T.- Numbers and Operations in Base Ten
- N.F.- Numbers and Operations Fractions
- M.D.- Measurement and Data
- G.-Geometry

Math Sequence	Standards (Priority)	I can statements...	Examples
3.OA.1	Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each.	<p>I can understand multiplication by thinking of equal groups of objects.</p> <p>I can understand what the numbers in multiplication mean. (factor \times factor = product) $7 \times 8 = 56$</p>	<ul style="list-style-type: none"> • Arrays • Groups/pictures • Skip counting • Number lines • Number bonds • Tape diagrams • Memorization
3.OA.2	Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.	<p>I can understand division by thinking about how a larger group can be made into smaller equal groups. (Dividend \div divisor = quotient) $56 \div 8 = 7$</p>	<ul style="list-style-type: none"> • Pictures/groups • Skip counting • Number lines • Fact families • Tape diagrams • Arrays • Number bonds • Memorization
3. 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 $1/b$.	I can show and understand that fractions are an equal part of a whole.	 <p>$1/4 + 1/4 + 1/4 + 1/4 = 4/4 = 1$ whole</p>

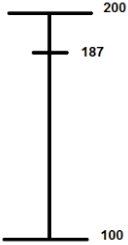
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<p>3.NF.2</p>	<p>Understand a fraction as a number on the number line; represent fractions on a number line diagram.</p>	<p>I can understand that fractions are found between whole numbers.</p> <p>I can show a fraction on a number line by marking off equal parts (intervals) between whole numbers.</p>	
<p>3.NF.3</p>	<p>Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p>	<p>I can show in words or pictures how two fractions can sometimes be equal.</p> <p>I can look at and compare fractions by their size.</p> <p>I can show whole numbers as fractions.</p> <p>I can show fractions as one whole.</p>	
<p>3.MD.7</p>	<p>Relate area to the operations of multiplication and addition.</p>	<p>I can find the area of a rectangle by drawing in the number of lines for the side lengths.</p> <p>I can multiply side lengths to find the area of a rectangle.</p>	 <p>There are 15 blocks/tiles.</p> <p>$3 \times 5 = 15$ or $5 \times 3 = 15$</p>



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Math Sequence	Standards (Supporting)	I can statements...	Examples
3.OA.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	<p>I can use multiplication within a 100 to solve word problems.</p> <p>I can use division within 100 to solve word problems.</p>	<p>“There are 3 bags with 6 plums in each bag. How many plums are there in all?”</p> <p style="text-align: center;">$3 \times 6 = ?$</p>
3.OA.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	I can find the missing number in a multiplication or division equation.	<p style="text-align: center;">$3 \times \square = 12$</p> <p style="text-align: center;">$12 \div \square = 3$</p>
3.OA.5	Apply properties of operations as strategies to multiply and divide.	<p>I can multiply and divide using the commutative property.</p> <p>I understand commutative property does not work in division.</p> <p>I can use the associate property to multiply three numbers.</p> <p>I can use parentheses to group two numbers to multiply first, and then multiply the 3rd number.</p> <p>I can use the distributive property to solve multiplication.</p>	<p style="text-align: center;">$3 \times 4 = 12$ Three groups of four = twelve</p> <p style="text-align: center;">$4 \times 3 = 12$ Four groups of three = twelve</p>
3.OA.6	Understand division as an unknown-factor problem.	I can get the answer to a division problem by thinking of the related multiplication fact (fact family) and knowing the missing factor.	<p style="text-align: center;">$8 \times 4 = 32$</p> <p style="text-align: center;">SO</p> <p style="text-align: center;">$32 \div 8 = 4$</p>

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<p>3.OA.7</p>	<p>Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.</p>	<p>I can fluently multiply within 100.</p> <p>I can memorize my multiplication facts for 0-100.</p>	<p>$8 \times 5 = 40$ $40 \div 5 = 8$</p>
<p>3.OA.8</p>	<p>Solve two-step word problems using the four operations. 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.</p>	<p>I can solve two-step word problems using the four operation (+, -, X, ÷).</p> <p>I can use a letter to stand for an unknown.</p> <p>I can decide if my answers are reasonable by using mental math, computation, or estimation.</p>	<p>$C + 3 = 10$ SO $C = 7$</p> <p>$C - 5 = 5$ SO $C = 10$</p> <p>$C \times 3 = 15$ SO $C = 5$</p> <p>$C \div 5 = 3$ SO $C = 15$</p>
<p>3.OA.9</p>	<p>Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.</p>	<p>I can find patters in addition a multiplication tables and explain.</p>	<ul style="list-style-type: none"> • The product of 4X4 is even because both numbers are even. • Any number multiplied by ten ends in a zero. • The answer to an even number added to an odd number will be odd.
<p>3.NBT.1</p>	<p>Use place value understanding to round whole numbers to the nearest 10 or 100.</p>	<p>I can round numbers to the nearest 10 and 100.</p>	<p>13 is between 10 and 20. It is closer to 10 so it rounds to 10.</p> 

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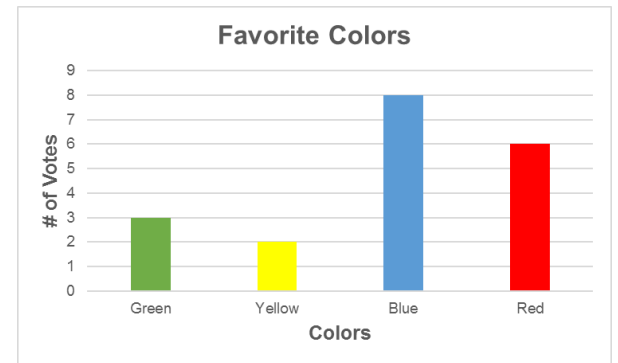
<p>3.NBT.2</p>	<p>Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</p>	<p>I can add and subtract within 1000.</p>	$\begin{array}{r} 576 \\ +318 \\ \hline 894 \end{array}$ $\begin{array}{r} 694 \\ -531 \\ \hline 163 \end{array}$ $300 + 200 = 500$ $700 - 300 = 400$
<p>3.NBT.3</p>	<p>Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9×80, 5×60) using strategies based on place value and properties of operations.</p>	<p>I can multiply one digit numbers by 10.</p>	$1 \times 10 = 10$ Any digit $\times 10$ is that number followed by 0. $2 \times 10 = 20$ $3 \times 10 = 30$
<p>3.MD.1</p>	<p>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.</p>	<p>I can tell and write time to the nearest minute.</p> <p>I can solve word problems involving time by adding and subtracting.</p>	 <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 20px;"> <p>2:35</p> </div> <p>Beth left at 4:42 and it took 11 minutes to drive to her destination. What time did she arrive?</p> $\begin{array}{r} 4:42 \\ +:11 \\ \hline 4:53 \end{array}$
<p>3.MD.2</p>	<p>Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).¹ 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.</p>	<p>I can measure liquids and solids with liters, grams, and kilograms.</p> <p>I can solve word problems involving mass and volume using +, -, x, ÷.</p>	 <p>1 kilogram = 1000 grams</p>

3.MD.3

Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.

I can create a picture or bar graph to show data and solve problems using information from the graphs.

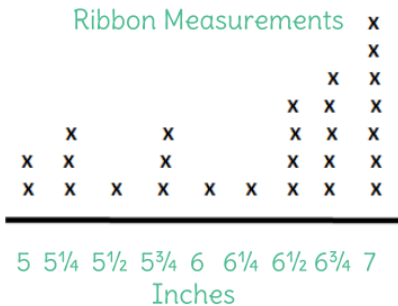
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Yellow	III	2
Blue	IIII III	8
Red	IIII I	6



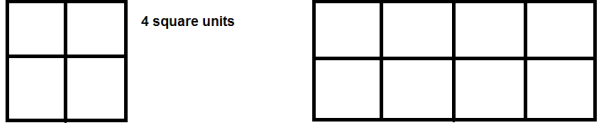
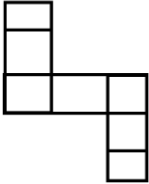
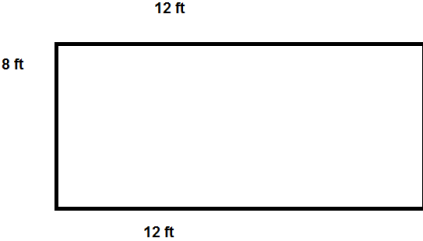
3.MD.4

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.

I can create a line plot from measurement data where the measured objects have been measured to the nearest whole.



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<p>3.MD.5</p>	<p>Recognize area as an attribute of plane figures and understand concepts of area measurement.</p>	<p>I can understand area of plane shapes can be measured in square units.</p>	
<p>3.MD.6</p>	<p>Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).</p>	<p>I can measure area by counting unit squares.</p>	
<p>3.MD.8</p>	<p>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.</p>	<p>I can solve real world math problems using what I know about the perimeter of shapes.</p>	<p>I put a fence around my rectangular back yard. The long side is 12 ft. long and the short side is 8 ft. long. What is the perimeter of my yard?</p>  $12+8+12+8$ $20 + 20$ 40 ft.

<p>3.G.1</p>	<p>Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.</p>	<p>I can place shapes into categories based on their attributes.</p>	<ul style="list-style-type: none"> • Rectangles have 4 sides and 4 right angles with opposite sides being equal. • Triangles have 3 sides with the angles adding up to 180°. • A rhombus has 4 equal sides. 												
<p>3.G.2</p>	<p>Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.</p>	<p>I can divide shapes into parts with equal areas and show those areas as fractions.</p>	<div style="text-align: center;"> <table border="1" style="margin: auto;"> <tr> <td style="padding: 5px;">3cm</td> <td style="padding: 5px;">3cm</td> <td></td> </tr> <tr> <td style="padding: 5px;">A = 6cm²</td> <td style="padding: 5px;">A = 6cm²</td> <td style="padding: 5px;">2cm</td> </tr> <tr> <td style="padding: 5px;">A = 6cm²</td> <td style="padding: 5px;">A = 6cm²</td> <td style="padding: 5px;">2cm</td> </tr> <tr> <td style="padding: 5px;">3cm</td> <td style="padding: 5px;">3cm</td> <td></td> </tr> </table> <p style="text-align: right; margin-top: 20px;"> $\frac{1}{4}$ of the area is 6cm² $\frac{1}{2}$ of the area is 12cm² $\frac{3}{4}$ of the area is 18cm² The total area is 24cm² </p> </div>	3cm	3cm		A = 6cm ²	A = 6cm ²	2cm	A = 6cm ²	A = 6cm ²	2cm	3cm	3cm	
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