**Mrs. Ford**

**Math Unit Plans for January**

**Unit 6- Area and Perimeter**

**3.G.1-** Draw and describe triangles, quadrilaterals ( rhombuses, rectangles, and squares), and polygons ( up to 8 sides) based on the number of sides and the presence or absence of square corners ( right angles)

**3.MD.5**- Recognize area as an attribute or plane figures and understand concepts of area measurement

**3.MD.6-**Measure areas by counting unit squares ( square cm., square m, square in, square ft, and improvised units)

**3.MD.7-**Relate area to the operations of multiplication and addition

**3.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.

**3.OA.B.5 -**  Apply properties of operations as strategies to multiply and divide. For example, if 6X4= 24 is known, then 4X6= 24 is also known ( Commutative Property); 3X5X2 can be found by 3X5=15, then 15X2=30, or by 5X2=10, then 3X10=30 ( Associative Property of Multiplication); knowing that 8X5=40 and 8X2=16, one can find 8X7 as 8 X (5+2)= (8X5)+(8X2)=40+16=56 ( Distributive Property). Students need not use formal terms for these properties.

**Unit Vocabulary**

**Area-** the amount of space taken up by a shape

**Perimeter-** the distance around the outside of a shape

**Rectilinear-** a shape that can be partitioned into rectangles

**Distributive Property-** breaking apart a factor into addends and multiplying each addend by the other factor

**Polygon-** a closed shape with straight sides

**Quadrilateral-** a four- sided polygon

**Square-** a quadrilateral with all equal sides and right angles

**Rectangle-** a quadrilateral with right angles and opposite equal sides

**Rhombus-** a quadrilateral with all equal sides

**Vertex-** a corner or point where two lines meet (Vertices is the plural form of vertex)

**Side-** a line that joins two vertices

**Angle-** the space between two intersecting lines

**Triangle-** a three- sided polygon

**Pentagon-** a five- sided polygon

**Hexagon-** a six- sided polygon

**Octagon-** an eight- sided polygon

**Area Formula-** the equation used to find the area of a rectangle

**Parallel-** two lines that are the same distance from each other that will never cross

**Right Angle-** an angle that measures 90 degrees

**Regular-** a shape with all equal sides and all equal angles

**Trapezoid-** a quadrilateral with one set of parallel sides

**Attributes-** the traits of characteristics of a shape or object

**Row-** items arranged from left to right

**Column-** items arranged up and down

**Unit Square-** a square with sides measuring one unit

**Square Unit-** the area of a square having the length of 1 unit

**The following standards will be ongoing throughout the year:**

**3.OA 8**- Solve two-step word problems using the four operations. Represent these problems using equations with a letter or a symbol, which stands for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. This standard is limited to problems posed with whole numbers and having whole number answers. Students may use parentheses for clarification since algebraic order of operations is not expected

**3.OA 9**- 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

**3.NBT 2-**  Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.