

Grade 4 Mathematics

Third Trimester

March 17 – June 15

(Check out our Math Parent Resources at

<http://www.tufsd.org/wi/mathresources/grade4.html>)

End of March: Investigating Area and Perimeter

Essential Questions:

How do I find the area of a 2 D shape?

Why is base and height important to the area of rectangles?

How do I find the perimeter of irregular and regular shape?

How can I find the area of rectangles?

Skills:

Understand that the area of a 2 dimensional shape is found by counting the total number of squares within a given boundary.

Develop strategies for finding perimeters and areas of irregular and regular shapes.

Develop, understand, and use formulas ($A = L \times W$) to find the area of rectangles.

Recognize geometric ideas and relationships and apply them to situations in everyday life.

Investigating Algebra Concepts

Essential Questions:

How do I translate a word problem to an opened ended number sentence?

How do equations work?

Can I describe and extend geometric and number patterns?

Skills:

Compare whole numbers, fractions and decimals using $<$, $>$, or $=$.

Determine a missing number that will make a number sentence true.

Describe and extend geometric and number patterns.

Discover the rule for an In and Out table.

April: Properties of Number

Essential Questions:

What is the associative property of multiplication?

What are the properties of odd and even numbers when multiplied?

How do you round a number and when is appropriate to do so?

Skills:

Make use of the associative property of multiplication.

Know the product of even x even, odd x odd and even x odd.

Round a number to a specified place value.

May & June: Focusing on the Common Core

Skills based on each Domain:

Number and Operations in Base Ten

Use place value understanding and properties of operations to perform multi-digit arithmetic

- Multiply a whole number of up to four digits by a 1-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.
- 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

Number and Operations- Fractions

Extend understanding of fraction equivalence and ordering

- Compare two fractions with different numerators and different denominators, e.g. by creating common denominators or numerators, or by comparing to a bench-mark fraction such as $\frac{1}{2}$. Recognize the comparisons are valid only when the two fractions refer to the same the whole. Record the results of comparisons with symbols $<$, $>$, $=$ and justify the conclusions, e.g., by using a visual fraction.

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers

- Understand a fraction a/b with a greater than 1 as a sum of fractions $1/b$.
 - 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.
 - 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.

Geometry

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

- Draw points, lines, line segments, line arrays, angles (right, acute, obtuse) and perpendicular and parallel lines. Identify these in two-dimensional figures.
- Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specific size. Recognize right triangles as a category and identify right triangles.