

Grade 3 Mathematics

Third Trimester

March 17 – June 15

(Check out our Math Parent Resources at

<http://www.tufsd.org/wi/mathresources/grade3.html>)

End of March: Using Data and Making Predictions

Essential Questions:

Do I know that graphs are used to display information that describes a situation or a set of events?

How can I use the information from a graph to make a prediction?

Skills:

Read and use information from a map to solve problems related to it.

Develop increased fluency in addition of whole numbers.

Make predictions and justify conclusions based on data.

Represent data on a line plot.

Collect, organize, and represent data using graphs.

Propose and justify conclusions that are based on data.

Analyze data.

Read and interpret data in a table and graph.

Exploring Fractional Relationships

Essential Questions:

Do I understand that fractions are equal parts of a whole?

How do I compare fractions?

How do fractions relate to division or whole numbers?

Skills:

Use models and benchmarks to judge the size of fractions.
Develop understanding of fractions as equal parts of a whole or equal parts of a collection or set.
Demonstrate understanding of fractions as locations on a ruler or number line.
Extend counting by halves to counting by fourths.
Compare and order fractions using models of fractions.
Recognize and create equivalent forms of a fractional amount.
Use benchmarks to compare and order fractions.
Demonstrate understanding of fractions as divisions of whole numbers.
Describe separating a whole into equal groups with a division sentence and a fraction sentence.

April: Working with Time

Essential Questions:

Can I calculate intervals of time using hours and minutes?

Skills:

Interpret information on a time line.
Develop understanding of the meaning of a.m. and p.m.
Tell time past the hour at 5 minute intervals, and 1 minute intervals.
Understand the movements of the hands on a clock.
Solve problems involving time.
Explore strategies for calculating intervals of time.
Estimate intervals of time.

Capacity and Weight

Essential Questions:

Do I know what capacity and weight is?

Skills:

Understand the meaning of capacity.
Explore relationships among cups, pints, quarts, and gallons.
Understand the meaning of weight.
Explore the relationship between kilograms and grams, pounds and ounces.
Use logic to order objects according to weight.

May & June: Focusing on the Common Core

Skills within each domain:

Operations and Algebraic Thinking

Represent and solve problems involving multiplication and division.

- Interpret products of whole numbers e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. For Example, describe a context in which a total number of objects can be expressed as 5×7 .
- 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. For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.
- Use multiplication and division within 100 to solve word problems in situation 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.
- Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = ? \div 3$, $6 \times 6 = ?$
- If time permits!
 - Apply properties of operations as strategies to multiply and divide. Review distributive property, commutative property, and associative property.

Number and Operations in Base Ten

- Use place value understanding to round whole numbers to nearest 10 or 100.
- Review: Multiply 1 digit numbers by multiple of 10 in the range 10-90 (eg 9×80)

Number and Operations – Fractions

- Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and portioning 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.
- Recognize and generate simple equivalent fractions (eg $1/2 = 2/4$) Explain why the fractions are equivalent by using a visual fraction model.
- (review) Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers (eg $3 = 3/1$)
- Compare 2 fractions with the same numerator or the same denominator by reasoning by their size. Recognize that comparisons are valid only when the 2 fractions refer to the same whole. Record the results of comparisons with the symbols greater than/less than and justify the conclusion (eg using a fraction model)

Measurement and Data

- Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction in time intervals in minutes (eg representing the problem on a number line diagram)
- Draw a scaled pictograph 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 graph.
- Measure area by counting unit squares AND relate area to multiplication and addition. (Suggestion: clarify difference between area and perimeter)

Geometry

- Partition shapes into parts with equal area. Express the area of each part as a unit fraction of the whole.