Questions

Questions for your child's teacher:

- What are my child's strengths and weaknesses based on his/her assessments and class work?
- What types of resources /materials are available for my child?
- What can I do over the summer/ breaks to prepare them for the upcoming school year?
- What can I do if is hard for my child to comprehend and concentrate in class/home?
- Can I contact the teacher after school hours to get assistance with homework?
- Are there resources or educational tools available to parents to support my child's learning.

Activities for Home

What can I do to help my child

- Request to see your child's homework?
- Use the district's website to obtain a copy of math formulas to compute math problems.
- Participate in parent educational workshops sponsored by school or Family Academy.
- Figure out the discount on an item that is marked down while shopping.
- Make algebra/ geometry vocabulary cards.
- Utilize resources in the math textbook or supplemental activities to link home and school.
- Communicate with your child's teacher any difficulty they are experiencing completing homework assignments.
- Select graphs and tables from USA and Plain Dealer to read and interpret.
- Involve your child in home repair and decoration projects that utilize measurement.

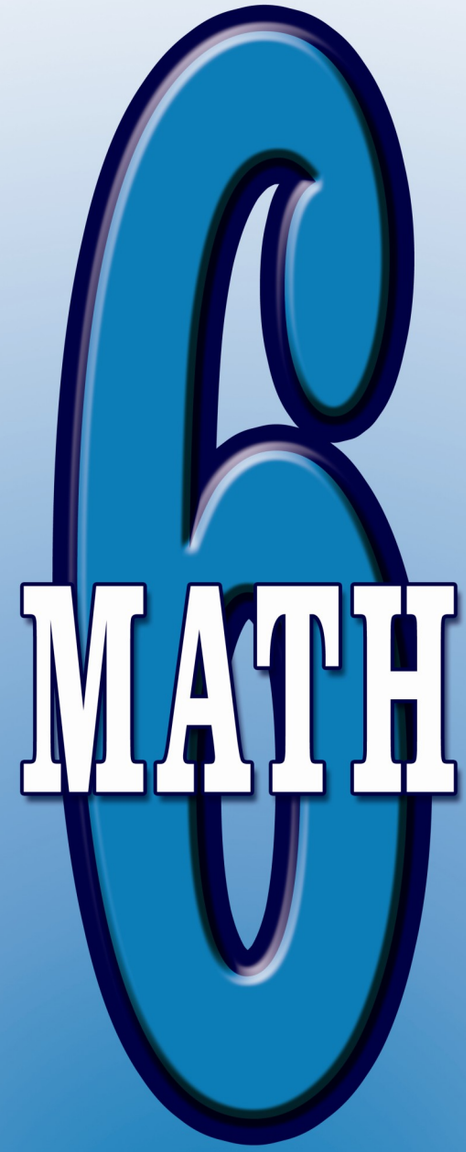
A Message from the CMSD ~School Parent Organization~

Dear Families,

This information was created by CMSD families for CMSD families it is intended to enhance your ability to communicate and understand what is expected of your child in 6th grade.

NOTES:

Cleveland Metropolitan School District



What should my sixth grader learn about Math?

Number, Number Sense and Operations

- Represent and compare numbers less than 0 through familiar applications and extending the number line.
- Compare, order and convert among fractions, decimals and percents.
- Develop meaning for percents, including percents greater than 100 and less than 1.
- Use models and pictures to relate concepts of ratio, proportion and percent.
- Use order of operations, including use of parenthesis and exponents to solve multi-step problems, and verify and interpret the results.
- Apply number system properties when performing computations.
- Apply and explain the use of prime factorizations, common factors, and common multiples in problem situations.
- Use and analyze the steps in standard and non-standard algorithms for computing with fractions, decimals and integers.
- Use a variety of strategies, including proportional reasoning, to estimate, compute, solve and explain solutions to problems involving integers, fractions, decimals and percents.

Measurement

- Select appropriate units to measure angles, circumference, surface area, mass and volume, using:

  -U.S. customary units; e.g., degrees, square feet, pounds, and other units as appropriate;
  -metric units; e.g., square meters, kilograms and other units as appropriate.

- Convert units of length, area, volume, mass and time within the same measurement system.
- Identify appropriate tools and apply appropriate techniques for measuring angles, perimeter or circumference and area of triangles, quadrilaterals, circles and composite shapes, and surface area and volume of prisms and cylinders.
- Select a tool and measure accurately to a specified level of precision.
- Use problem solving techniques and technology as needed to solve problems involving length, weight, perimeter, area, volume, time and temperature.
- Analyze and explain what happens to area and perimeter or surface area and volume when the dimensions of an object are changed.
- Understand and demonstrate the independence of perimeter and area for two dimensional shapes and of surface area and volume for three-dimensional shapes.

Geometry and Spatial Sense

- Identify and label angle parts and the regions defined within the plane where the angle resides.
- Draw circles, and identifies and determines the relationships among the radius, diameter, center and circumference.
- Specify locations and plot ordered pairs on a coordinate plane.
- Identify, describe and classify types of line pairs, angles, two-dimensional figures and three dimensional objects using their properties.
- Use proportions to express relationships among corresponding parts of similar figures.
- Describe and use the concepts of congruence, similarity and symmetry to solve problems.
- Describe and use properties of triangles to solve problems involving angle measures and side lengths of right triangles.
- Predict and describe results (size, position, orientation) of transformations of two dimensional figures. I. Identify and draw three-dimensional objects from different views (top, side, front and perspective).
- Apply properties of equality and proportionality to solve problems involving congruent or similar figures; e.g., create a scale drawing.

Patterns, Functions and Algebra

- Describe, extend and determine the rule for patterns and relationships occurring in numeric patterns, computation, geometry, graphs and other applications.
- Represent, analyze and generalize a variety of patterns and functions with tables, graphs, words and symbolic rules.
- Use variables to create and solve equations and inequalities representing problem situations.
- Use symbolic algebra to represent and explain mathematical relationships.
- Use rules and variables to describe patterns, functions and other relationships.
- Use representations, such as tables, graphs and equations, to model situations and to solve problems, especially those that involve linear relationships.
- Write, make easier, and determine the meaning of algebraic expressions and problems
- Solve linear equations and inequalities that include symbols, graphs, and numbers. $x + 5 = 7$
- Tell how inverse operations, or opposite operations, are used to solve linear equations. Ex. To solve $x + 5 = 7$ do the opposite of addition and subtract 5 from both sides of the equation, $x = 2$. Use formulas to solve problems.
- Graph linear equations and inequalities. Ex. Graph $y = 2x + 1$ or $y < 2x + 1$
- Observe, think about, and make decisions about how changing one amount will change another amount in an equation.
- Estimate and explain rates of change using graphs and numbers provided. and graphs, and identify misuses of statistical data and displays.

Mathematical Processes

- Clarify problem-solving situation and identify potential solution processes; e.g., consider different strategies and approaches to a problem, restate problem from various perspectives.
- Apply and adapt problem-solving strategies to solve a variety of problems, including unfamiliar and non-routine problem situations.
- Use more than one strategy to solve a problem, and recognize there are advantages associated with various methods.
- Recognize whether an estimate or an exact solution is appropriate for a given problem situation.
- Use deductive thinking to construct informal arguments to support reasoning and to justify solutions to problems.
- Use inductive thinking to generalize a pattern of observations for particular cases, make conjectures, and provide supporting arguments for conjectures.
- Relate mathematical ideas to one another and to other content areas; e.g., use area models for adding fractions; interpret graphs in reading, science and social studies.
- Use representations to organize and communicate mathematical thinking and problem solutions.
- Select, apply, and translate among mathematical representations to solve problems; e.g., representing a number as a fraction, decimal or percent as appropriate for a problem.
- Communicate mathematical thinking to others and analyze the mathematical thinking and strategies of others.
- Recognize and use mathematical language and symbols when reading, writing and conversing with others.