Grade Six

Math• Mrs. LaSalle ext. 371, mlasalle@pgasd.com   **Math** • Mrs. Starr ext. 363, sstarr@pgasd.com

Learning Support• Mrs. Harrison ext. 307, aharrison@pgasd.com

WELCOME TO 6TH GRADE MATH

COURSE DESCRIPTION

The math curriculum correlates with the guidelines set forth in the Pennsylvania Common Core State Standards and Assessment Anchors in order to prepare students for the PSSA assessment in April. The assessment categories are:

- **The Number System** (operations and problem solving of whole numbers and decimals, division of fractions, number theory, integers, graphing on the coordinate plane, absolute values, distributive property)
- **Expressions and Equations** (evaluate, write, and solve expressions and equations; use mathematical terms to describe parts of expressions and equations; apply properties of numbers to solve equations; inequalities; dependent and independent variables)
- **Ratios and Proportional Relationships** (ratios, unit rates, unit pricing, percentages)
- **Geometry** (area of special and irregular polygons; volume; graphing polygons on the coordinate plane; netting of prisms and pyramids; surface area of three-dimensional figures)
- **Statistics and Probability** (central tendency, interquartile range and mean absolute deviation, describe patterns and deviations in data, relate measurements to the shape of data, display data)

GRADING

- **Quizzes/Tests, In-class Assignments/Projects, Writing:** In-class assignments could include worksheets, writing, station work, and/or computer based tasks. All quizzes/tests and due dates are announced in advance and posted on the homework chart/calendar. **STUDY!** Quizzes/tests will include **new material, spiral review** of previously taught material, and **vocabulary**. *(quizzes 10-40 pts; tests 50-100 pts)*

- **Online Programs**: *10-20 pts/each.* Most tests will be completed at least once in class. Retests are permitted. The highest score will count.

- **Math Facts**: *30 pts/MP*. Basic multiplication & division facts should be mastered prior to 6th grade. Facts will be tested weekly to assure working memory of them. Each test is 50 facts in 3 minutes.
0-2 wrong = 100%, 3+ wrong = try again!

- **Homework**:*2 pts/each.* Assignments consist of practice of the day's skill, test practice, vocabulary, and/or spiral review. Points will be awarded for completion and attempting to follow directions.

- **Weekly Review**: *10 pts/each.* These independent worksheets consist of basic skills and concepts to keep fresh all year long. Collected weekly. If handed in early, students will have a chance to correct mistakes.

COURSE METHODS

- Full Block (90 minutes)
- Daily warm-ups
- Whole-Group Instruction
- Small-Group Instruction
- Partner/Group Work
- Stations
- Guided Practice
- Independent Practice
- Interventions
- Open-Ended Writing
- Spiral Review
- Emphasize Vocabulary
- Preparation for PSSAs in April & cumulative final exam in May

Dear Parents,

We are excited to announce the introduction of our new middle school math program: **enVisionmath2.0**.

This math program is fully aligned to the Common Core Academic Standards. It addresses the 8 Standards of Mathematical Practice, emphasizes a problem-solving approach to math, has increased rigor, 3-Act Mathematical Modeling lessons, and even includes STEM projects.

With this program your child will receive…
- Student math book (Volume 1 & Volume 2)
- Additional Practice Workbook (as needed)
- Login for PearsonRealize.com
  - Online tools, lessons, practice, quizzes, etc.
  - Login sticker is found in the back of your child's HW folder.

- Additional materials will be kept in the students' math binders.

Standards for Mathematical Practice
1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Topic 1: Use Positive Rational Numbers	• fluently add, subtract, multiply & divide whole numbers, decimals & fractions
Topic 2: Integers & Rational Numbers	• positive & negative integers • rational numbers & absolute value • coordinate plane
Topic 3: Numeric & Algebraic Expressions	• exponents, order of operations • prime factorization, LCM, GCF • write, evaluate, & simplify expressions
Topic 4: Represent & Solve Equations & Inequalities	• properties of numbers • write & solve equations & inequalities
Topic 5: Understand & Use Ratio & Rate	• ratios, unit rates, unit pricing, constant speed, & conversion factors
Topic 6: Understand & Use Percent	• find the percent of a number
Topic 7: Solve Area, Surface Area, & Volume Problems	• explore 2-D & 3-D figures • find area, surface area, & volume of polygons/polyhedrons & irregular figures
Topic 8: Display, Describe, & Summarize Data	• statistical questions, categorical vs. numerical data • measures of center & variability (mean, median, mode, range, mean absolute deviation, etc. • box-and-whisker plots, histograms • shape, spread, & distribution of data