Locust Grove Middle 8th Grade Mathematics

Teacher: Ingrid Zabala

Email: ingrid.zabala@henry.k12.ga.us

Team 801/Team 802 Room 712

Tutorial Hours: TBD when face-to-face resumes

Textbook: HMH Into Math (Grade 8)

Tutorial Location: Room 712

Department Philosophy: Believing that every student is capable of learning mathematics, opportunities are provided for all students to strive toward their maximum potential and to increase their confidence in themselves and in their own abilities. Teachers and parents work together in helping students to appreciate mathematics, to grow more proficient mathematically, and to realize that mathematical skills are stepping stones to success. Mathematics instruction must continue to grow to meet the changing demands of our society. Literacy in Mathematics requires understandings and habits of mind that enables citizens to make sense of our world, to think critically and independently, to recognize and weigh alternative explanations, and to deal reasonably with problems that involve numbers, patterns, and logical arguments.

Course Description:

Unit 1 Exponents: Students explore and understand numbers that are not rational (irrational numbers) and approximate their value by using rational numbers. Students work with radicals and express very large and very small numbers using integer exponents.

Unit 2 Transformations, Congruence, and Similarity: This unit centers around geometry standards related to transformations both on and off the coordinate plane – translations, reflections, rotations, and dilations. Students develop understanding of congruence and similarity using physical models, transparencies, or geometry software, and learn to use informal arguments to establish proof of angle sum and exterior angle relationships.

Unit 3 Geometric Applications of Exponents: Students extend their work with irrational numbers by applying the Pythagorean Theorem to situations involving right triangles, including finding distance, and will investigate proofs of the Pythagorean Theorem and its converse. Students solve real-world problems involving volume of cylinders, cones, and spheres.

Unit 4 Functions: Students are introduced to relations and functions. Students define, evaluate, and compare functions. Functions are described and modeled using a variety of depictions, including algebraic representation, graphic representation, numerical tables, and verbal descriptions.

Unit 5 Linear Functions, Models, and Tables: Students further explore functions, focusing on the study of linear functions. Students develop understanding of the connections between proportional relationships, lines, and linear equations, and solve mathematical and real-life problems involving such relationships. Slope is formally introduced, and students work with equations for slope in different forms, including comparing proportional relationships depicted in different ways (graphical, tabular, algebraic, verbal).

Unit 6 Linear Functions, Models, and Tables: Students extend the study of linear relationships by exploring models and tables to describe rate of change. The study of statistics expands to bivariate data, which can be graphed and a line of best fit determined.

Unit 7 Systems of Equations: The final unit broadens the study of linear equations to include situations involving simultaneous equations. Using graphing, substitution, and elimination, students learn to solve systems of equations algebraically, and make applications to real-world situations.

Course Outline:

Fall Semester

Unit 1 Exponents and Equations (4 wks.)

Unit 2 Transformations, Congruence, and Similarity (5 wks.)

Unit 3 Geometric Applications of Exponents (5 wks.)

Unit 4 Functions (2 wks.)

Spring Semester

Unit 4 Functions (2 wks.)

Unit 5 Linear Functions, Models, and Tables (4 wks.)

Unit 6 Linear Functions, Models, and Tables (4 wks.)

Unit 7 Systems of Equations (3 wks.)

Review Milestones Review

Required Materials/Supplies:

- Composition Notebooks
- Pencils
- Tape
- Highlighters
- Glue Sticks
- Ruler

Grading: District grading regulation can be found:

https://simbli.eboardsolutions.com/ePolicy/policy.aspx?PC=IHA-R(2)&Sch=4088&S=4088&C=I&RevNo=1.53&T=A&Z=R&St=ADOPTED&PG=6&SN=true&SB=1

Practice Work	Assessment Tasks	Semester Summative Assessment Tasks
Class work, homework, formative assessments, diagnostic assessments, written reflections. May be graded for accuracy or completion.	Such as constructed response assessments, selected response assessments, reflective assessments, summative unit assessments, culminating performance tasks, projects	Assesses the totality of standards for the course. In the case of a high school course with an End of Course (EOC) Test, the semester summative assessment will be the EOC at the completion of the full course.
Counts 40% of the grade.	Counts 40% of the grade.	Counts 20% of the grade.

Technology/Cellphones:

1. Technology is for educational purposes only. No games during class. No technology usage in the hallways or at lunch.
2. Earbuds or headphones should only be worn in the classroom or labs when needed. These should not be worn in the hallways.
3. Cellphones should not be seen during the school day. Cellphones which are visible will be deposited in the vault in the front office for guardian pickup.

Remote Learning Expectations:

1. Virtual attendance is required.
2. Students must login on time with their camera on from their school issued device.
3. Computers need to be charged.
4. Communication, spoken and written, in chat, email, etc. must be respectful and academically related.
5. Take notes and maintain Interactive Notebook.
6. Assessments will be administered via Illuminate.
7. Students should check Google Classroom minimally once a day for Learner Pathway and other announcements.

****Sign-up for IMPORTANT Updates!!**

Get information right on your phone. Text the message **@lgmsmathz** to the number **81010 or** click on this link: https://www.remind.com/join/lgmsmathz.

I look forward to an amazing year together and I can't wait to work with you!

Ingrid Zabala